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2004

A B C D E

Annual World Bank Conference on
Development Economics
Europe

**Economic Integration and
Social Responsibility**

Edited by

François Bourguignon
Pierre Jacquet
Boris Pleskovic

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on Development Economics—Europe
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THE WORLD BANK
Washington, DC

© 2007 The International Bank for Reconstruction and Development / The World Bank
1818 H Street, NW
Washington, DC 20433
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Internet www.worldbank.org
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1 2 3 4 :: 10 09 08 07

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ISBN-10: 0-8213-6103-1
ISBN-13: 978-0-8213-6103-0
eISBN: 0-8213-6104-X
DOI: 10.1596/ 978-0-8213-6103-0
ISSN: 1813-9477

Edited by François Bourguignon, Pierre Jacquet, and Boris Pleskovic.

Professional affiliations identified in this volume are as of the time of the conference, May 15–16, 2003.



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Acknowledgments

The planning and organization of the 2003 conference was a joint effort of the Agence française de développement (AfD), the Conseil d'Analyse Économique (CAE), and the World Bank, and was hosted by the Ministry of the Economy, Finance and Industry of France and the Ministry of Foreign Affairs of France. We wish to thank World Bank staff members Leita Jones (Partnerships and Capacity Building), Stuart Tucker (Office of the Publisher), and Mark Ingebretsen (Office of the Publisher) for their hard work in pulling this volume together.



Introduction

FRANÇOIS BOURGUIGNON AND PIERRE JACQUET

How to analyze the impact of globalization? What is the effect of rich countries' policies on developing ones? How to redefine the development agenda and scale-up the aid effort? These were the broad questions addressed by the 2003 European Conference on Development Economics (ABCDE-Europe) jointly organized in May by the World Bank and the French Development Agency under the title "Economic Integration and Social Responsibility." To address these broad questions, the conference focused on some of the problematic features of globalization and discussed the global impact of developed countries' policies in a number of crucial areas for developing countries, such as farm trade, migrations, the protection of intellectual property, and capital flows. It also highlighted the role and responsibilities of the private sector.

This volume, organized in twelve chapters, opens with the five plenary session papers that were at the core of the discussion and focuses on five crucial issues and policy challenges: agricultural trade, migration flows, intellectual property rights, the costs and benefits of international capital flows, and options for sovereign debt restructuring. The seven remaining chapters offer a collection of selected papers discussed in the parallel workshops held during the conference. They cover a wider range of issues, from the role and responsibilities of private actors and the components of the business environment to the sources of development finance and the relationship between commodity resources and development to the issue of "scaling up"—namely, the possibility of intensifying the volume and impact of development aid. Some of the papers are followed by comments from one or two discussants.

In chapter 1, **Kevin Watkins** shows how industrial countries' farm policies undermine the potential contribution of agricultural growth to poverty reduction in developing economies. The European Union (EU) and the United States stand as the primary offenders. Farm support in rich countries artificially boosts outputs and translates into export subsidies and restrictions to market access. As a result, farmers in the

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Annual World Bank Conference on Development Economics—Europe 2004

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developing countries face high trade barriers and are undercut in global markets. The World Trade Organization (WTO) rules provide poor countries with limited protection against Northern agricultural subsidies. Although industrial countries agreed to cut support to agriculture, Watkins claims that they have consistently violated the spirit of that agreement by resorting to a form of authorized decoupled support that in fact still increases production. The author goes as far as to suggest that even forms of support defined as nondistorting or “decoupled” eventually have an impact on production and include implicit export subsidies. He therefore recommends that the Doha Round should prohibit all direct and indirect export subsidies and accelerate market opening in industrial countries. Incidentally, Watkins’ strong criticism challenges one of the key features of the EU thinking on CAP reform, namely the use of forms of decoupled support, including “multifunctional” payments to farmers in exchange for land maintenance and environmental protection.

Chapter 2 focuses on a different kind of barrier. Dealing with the political economy of migration flows, it discusses whether globalization might once again go into reverse because of attitudes regarding international migration. In their paper, **Kevin O’Rourke and Richard Sinnott** show how fears that inflows of unskilled workers would increase inequality led to the erection of immigration barriers in the New World in the late nineteenth century. While noneconomic factors do not appear to have played an independent explanatory role in such a setback to globalization, the authors’ statistical analysis of individual voter attitudes toward immigration in the late twentieth century suggest that nationalism or chauvinism nowadays are also associated with more hostile attitudes toward immigrants. In his comments, **Devesh Kapur** questions the authors’ description of the interplay between economic and noneconomic factors to explain hostility toward immigrants and is not convinced by their conclusion about the relative importance of economic factors in the nineteenth century. He also discusses the reliability of the data on patriotism and chauvinism that are based on survey responses and that may be significantly endogenous to economic conditions. He shares, however, O’Rourke’s and Sinnott’s concern that globalization is not an irreversible phenomenon.

In chapter 3, **Claude Henry** considers another widely debated aspect of globalization: the issue of intellectual property rights. He takes a strong position against the patentability of elements of the human body such as genes and proteins. He points to a number of examples where existing patents have been given an unreasonably broad scope that penalizes downstream innovation, and argues that genes should not be assimilated to material compounds but are rather information systems that code biological activities. He views them as “essential facilities,” and concludes that the purification and sequencing of genes is a discovery that should not be patented, or when a patent is given that it should not be broad. As, nevertheless, broad patents have actually been granted, their usage should be liable to public regulation, as are, in an increasing number of countries, natural monopolies on which public utilities rely. Henry therefore calls for compulsory licensing on existing patents. His analysis raises significant concern for research done for people in developing countries and for the patent regimes in these countries, leading him to question the intellectual

property regime under construction within the TRIPs agreement at the WTO. In her comment **Jean O. Lanjouw** shares some of Henry's concerns, even though she takes a more agnostic view about the patentability of genes. She explicitly distinguishes between the first stage of research—namely discovery and purification of a gene—and the second stages, based on the development of products based on that gene. She shows how patent protection raises the complexity of research projects and affects the structure of incentives, leading to a contracting problem likely to increase the costs of organizing a biotechnology research project and to result in bargaining failures. Lanjouw, however, questions the reference made by Henry to the “doctrine of essential facilities.” She points out that genes do not meet the requirements developed by case law for invoking that doctrine, and notes that interpreting them otherwise would make it hard to define what patented innovations were not “essential facilities.”

The explosion and reversal of capital flows to emerging markets in the 1990s have ignited a heated debate, with many arguing that globalization has gone too far and that international capital markets have become extremely erratic. In contrast, others have emphasized that globalization allows capital to move to its most attractive destination, fueling higher growth. In chapter 4, **Graciela L. Kaminsky** reexamines the characteristics of international capital flows since 1970 and reviews the literature of the 1990s on the behavior of international investors and on the effects of globalization on financial markets and growth. She points out that capital outflows are not the policy makers' sole concern. Inflows may benefit capital-scarce economies, but they also carry dangers such as real exchange rate appreciation, loss of competitiveness, and bubbles in asset markets. Capital controls, however, may work in the short run but may also protect inefficient domestic financial institutions and delay improvements in corporate governance. Kaminsky concludes that there is no such thing as optimal policies to manage risks from capital flows. She emphasizes the role of a strong institutional financial infrastructure in dampening financial vulnerability and underlines the contribution of a steady process of liberalization together with conservative macro policies to strengthen that infrastructure.

Financial turmoil, however, notably in the aftermath of debt crises, carries potentially devastating costs for developing countries. In chapter 5, **Richard Portes** explains why the market cannot endogenously generate an orderly resolution of sovereign debt crises and looks for alternatives. Portes sees great merit in the Krueger proposals from the International Monetary Fund (IMF) for a sovereign debt restructuring mechanism (SDRM) in that they have unblocked the debate and allowed the **IMF** to contemplate official action that could override existing market institutions. He reviews the IMF proposals and that of an international bankruptcy court, but concludes that they lack basic political feasibility. He suggests that a better alternative is to devise a new institutional framework: it should be based on a light bondholder committee overseeing bondholders' negotiations with the debtor, on a new mediation agency to coordinate the Paris, London, and New York Clubs, and on a set of uniform collective action clauses (CACs) on sovereign bonds. Portes also explains why market participants oppose these approaches. There is a “chicken-and-egg”

vicious circle in which, as long as the official sector provides bailout packages, there is no incentive for the markets to accept measures such as mandatory CACs; but, conversely, bailouts are necessary in the absence of an alternative mechanism to limit the costs of default. Portes concludes that “more than simple encouragement” is needed from the official sector to put in place an organized, acceptable alternative to bailouts.

There is an important, ongoing debate on how much additional development funding is needed to achieve the Millennium Development Goals by 2015 as scheduled. There have been major initiatives, such as the British proposal to set up an International Financial Facility (IFF) that would securitize today on capital markets the current promises for future additional Overseas Development Assistance (ODA) efforts; or the French president’s international taxation proposal further elaborated in the Landau report, which considers a number of possible global taxes. In chapter 6, **Tony Atkinson** focuses on innovative sources for development finance. He emphasizes the need to specify their role clearly in relation to increased ODA. They may be thought of as providing a better way of funding a given development effort, thus offering an alternative to ODA. Or they might respond to the need to enhance development funding in addition to increased ODA. These two distinct roles are not mutually exclusive and deserve careful examination. As for the former, conventional public finance provides useful insights that notably invite to balance the well-known deadweight loss implied by taxation with any “double dividend” that could be expected from Pigovian taxes aiming at correcting costly behavior. Atkinson also discusses the international architecture implications of various innovative proposals. Some can be implemented by a group of countries only; others require joint multilateral action. Atkinson suggests that the experience of the European Union sheds useful light on the range of possible political and administrative alternatives. The choice among various proposals ultimately rests on politics as well as on economic and financial analysis. Political economy is the angle chosen by **Adrian Wood** in his comments. He suggests focusing on the causes of current proposals as a way to better understand their design, feasibility, and impact on additionality. As an illustration, he sketches a model that aims at capturing some of the political economy aspects and could be extended to describe the possible substitution between official aid flows and private donations, to take into account the multilayered structure of donors’ governments and the division of ODA into multilateral and bilateral channels. **Paul Bernd Spahn** extends the discussion in a balance-of-payments framework, distinguishing between instruments of development finance that work through the current account and those that work through the capital account. This is a useful way to discuss the development dimension relevant to each item of the balance of payments and to reflect on policy coherence. For example, Spahn recalls that the costs of Northern protectionism for developing countries are in the same order of magnitude as current ODA. This framework also allows him to discuss sovereign rights, remittances, and compensations for international spillovers. In his discussion of the capital account, Spahn insists on the wealth redistribution effects involved in exchange rate movements, arguing that these effects might also have approached the total amount of

ODA since the early 1950s. He therefore suggests that stabilizing exchange rates is critical for development. Beyond the fiscal options it opens, he doubts that a Tobin tax could do the job and defends his proposal of an exchange-rate normalization duty (ERND) as a useful complement.

The following three chapters turn to the role and responsibilities of private actors and to the relevant components of the business environment. In chapter 7, **Florence Eid** focuses on the Middle East and North Africa region, where employment creation and business competitiveness have become crucial challenges. She claims that entrepreneurship needs to be promoted not only by supply-side policies aimed at creating a conducive regulatory and macroeconomic environment, but also through pro-active reforms and programs. Her work, based on field research and on an empirical equity survey sent to the major private equity actors in the Middle East and North Africa, leads her to conclude that there is lack of neither talent nor finance in the region, but rather of “smart” institutions able to channel financial resources to promising entrepreneurs.

Steven Fries, Tatiana Lysenko, and Sašo Polenac report in chapter 8 the key findings of the 2002 Business Environment and Enterprise Performance Survey (BEEPS), a joint survey undertaken by the European Bank for Reconstruction and Development and the World Bank to analyze policies and practices that facilitate or impede business in Central and Eastern Europe and the Commonwealth of the Independent States. BEEPS provides a very rich set of data. From its results, the authors document the significant improvement in the business environment in many transition economies between 1999 and 2001. They also highlight a significant link among business impediments and corruption, private security protection, and reliance on retained earnings as sources of finance. The authors also find that the quality of the business environment in 1999 has significantly impacted the investment decisions of firms in the 1999–2001 period. Finally, they study the impact of state capture through which firms—through illicit or nontransparent means—influence laws, regulations, and government policies: there are four times more firms affected by capture than there are captor firms, and each loses, in terms of real revenue growth, four times less than the benefits accruing to a captor firm. Overall, state capture is essentially a redistributive, zero sum game with few winners and many losers.

The focus of **Ariel Colonomos and Javier Santiso** in chapter 9 is the corporate social responsibility (CSR) of multinational firms. Complementing the existing studies focusing on CSR in the United States, they use original economic and financial empirical data to investigate the reasons why a foreign norm such as CSR can take hold in a non-American capitalist society, and ask why French firms have adopted CSR and have integrated many of the practices prevalent in the American private sector. The globalization of production, capital, and ideas, interacting with pressures from nongovernmental organizations (NGOs) and norms activists, seems to have made virtue economically worthwhile and allowed it to associate profitability with human rights. The authors observe that a private “market of virtue” has developed with little involvement by the state, which may seem paradoxical in a society in which there used to be a dichotomy between political and economic spheres and in

which human rights had hitherto been the concern of the former. Such “privatization of human rights” now calls for a state reaction in setting new norms. In the view of the authors, CSR can be interpreted as a virtue-based regulation of the marketplace put in place via the private and transnational sphere, which may ultimately encourage state reform.

The next two chapters address the relationship between commodity resources and development, from two complementary angles: that of the link between natural resources, conflicts, and development, and that of the vulnerability of primary-resource countries to commodity price volatility. In chapter 10, **Paul Collier** documents the observed association over the past four decades of natural-resource abundance with unfulfilled economic growth potential and large-scale violent conflict. He reviews six causal mechanisms to understand such problematic association: fight for the “honey pot” that natural resources represent; as a variant, secessionist claims on that honey pot; financing rebel groups; detaching the government from the electorate through reducing the need for taxation and therefore from popular scrutiny; Dutch disease; and exposure to shocks. Collier explores ways through which the international community could put together a feasible package of adequate responses. He identifies four components in such a package: promoting revenue transparency, scrutinizing how natural resource revenues are spent; tracking commodities, physically and financially; and contributing to reduced exposure to shocks.

Reduced exposure to shocks is the main theme covered in chapter 11. **Patrick Guillaumont, Sylviane Guillaumont-Jeanneney, Pierre Jacquet, Lisa Chauvet, and Bertrand Savoye** revisit the issue of developing countries’ commodity price vulnerability. This is a well-known problem that has resisted past attempts at devising solutions and remains too often ignored in development finance as well as in assessments of the debt solvency impact of debt reduction initiatives such as the heavily indebted poor countries (HIPC) initiative. The authors make the case for using ODA to help dampen the effects of commodity price shocks that jeopardize development and to increase the resilience of vulnerable developing economies. They discuss the nature, design, and conditionality of several instruments that could be used. For poor indebted countries, they recommend an ex-ante mechanism of response to shocks through an automatic indexation of the debt service to price shocks, and discuss various ways to design the appropriate financing instrument and the possible contribution of ODA. In other least-developed countries financed through subsidies and where debt is not a problem, they propose an automatic ODA mechanism that could be drawn after a specific price threshold has been reached and that would be automatically accessible to countries that have committed ex ante to limit the growth of public spending when prices are high. Finally, the authors also investigate the micro-economic dimension of shock-dampening ODA and suggest that it could be used to provide agricultural producers in low-income countries with facilitated access to specific insurance mechanisms.

Chapter 12 examines the conditions for scaling up the aid effort so as to increase chances to achieve the Millennium Development Goals (MDGs). In this final, concluding chapter, **Robert Picciotto** defines scaling up as a much more comprehensive

approach of the development challenge, that involves (1) a shift to an MDG-based development agenda; (2) greater attention to policy coherence between donors' policies dealing notably with trade, migrations, foreign investment, intellectual property, or the environment; and (3) a renovation of development measures and instruments. In Picciotto's view, such scaling up is necessary because, on current trends, only a third of developing countries are on track to meet most of the goals. Fresh ideas, new partnerships, and a focus on global results are crucial, well beyond necessary aid volume advocacy. In line with his view of scaling up, Picciotto recommends action on four fronts: (1) shifting the unit of account from the project to the higher plane of country strategies and global public goods programs; (2) rethinking ODA to emphasize results-based programs combined with projects conceived as incubators for policy experimentation and knowledge transfer—in other words, “instruments of social learning”; (3) providing more and better aid, which requires refocusing trade, foreign investment, intellectual property, migration, environment, and other policies on the development agenda; and (4) establishing new partnerships that combine the legitimacy of governments, the ethics of the civil society, and the innovative energies of the private sector.

Altogether, these papers shed a very useful light on the current debates about how rich countries can and should help the developing world. The development concern has unquestionably come to the fore of the international policy-making agenda and of G-8 summit meetings. The international community has solemnly adopted the Millennium Development Goals and must now fulfill its commitments. This volume addresses four of the major challenges facing policy makers in this respect. The first is policy coherence: how to make sure that public policies at the national and at the global levels are consistent with the development goals? A number of chapters forcefully illustrate crucial issues in areas such as agriculture, migrations, intellectual property, global financial governance, but also the governance of natural-resource revenues. The second challenge is to find ways to enlist the private sector in reaching the MDGs. This concern admittedly covers a much wider range of issues than those addressed below. Here, contributors discuss the role of public policies, governance, and institutions in promoting private sector development and entrepreneurship, in establishing a favorable business climate, and in adapting standards and regulations to the evolution of the marketplace. The third challenge comes down to providing adequate resources in effective ways. This notably calls for innovative approaches to development finance, for a careful consideration of new instruments, and, as argued in this volume, for using ODA toward alleviating developing countries' vulnerability to commodity price shocks. The final challenge illustrated here, summarizing all the others, is to properly scale up the aid effort. We hope that this volume, like the conference on which it is based, will contribute to raising awareness of these issues and to giving proper ammunition in the lively contemporary debates surrounding development aid.



Northern Agricultural Policies and World Poverty: Will the Doha “Development Round” Make a Difference?

KEVIN WATKINS

Agricultural growth based on smallholder producers has the potential to act as a powerful catalyst for poverty reduction. This paper argues that this potential is being undermined by industrialized country agricultural policies, with the European Union (EU) and the United States the primary offenders. Contrary to the claims of Northern policy makers, the benefits of agricultural support go overwhelmingly to those least in need: large-scale, high-income producers, landlords, agribusiness processors and traders, and input suppliers. On the international stage, rich-country farm policies provide a stark example of the hypocrisy and double standards that govern international trade. They systematically skew the benefits of globalization toward rich countries. Subsidized overproduction and the export of surpluses at artificially depressed prices hurts developing-country agricultural exporters by depressing world prices and restricting their market shares. The damage extends beyond global markets to local markets. Subsidized exports from industrialized countries also drive down prices and skew consumer preferences toward imports in domestic markets, creating disincentives for investment in agriculture and adverse consequences for household income among smallholder producers. World Trade Organization (WTO) rules provide poor countries with limited protection against Northern agricultural subsidies. Crafted by the EU and the United States, these rules were designed to accommodate, rather than constrain, Northern agricultural subsidies. The Doha Development Round provides an opportunity to change this picture. However, effective action will require a fundamental revision of the Agreement on Agriculture negotiated in the Uruguay Round. The distinction drawn between “trade-distorting” and “nondistorting” subsidies, and the segmentation of subsidies into domestic support, market restrictions, and export subsidies, has enabled rich countries to escape effective multilateral disciplines. Disguised export subsidization represents a special problem because of the damage caused by this form of support.

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Annual World Bank Conference on Development Economics—Europe 2004

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I would like our farmers in America to be feeding the world, and therefore I'm going to work hard to open up markets.

President George Bush, March 8, 2001 (U.S. Congress 2002a)

Critics of US farm policy would cede our food production to unstable places like the Third World, but in these times does any American want to depend on the Third World for a safe and abundant supply of food?

U.S. House of Representatives (U.S. Congress 2002b)

The logic of liberalisation cannot be applied to the agricultural sector as such.

Pascal Lamy (cited in COPA 2003)

Any export efforts we might make will be worth nothing if rich countries continue to preach free trade and practice protectionism.

President Lula Da Silva, World Economic Forum,
January 26, 2003 (Government of Brazil 2003)

Poverty is back in the official rhetoric on international trade. Gathered at the ministerial meeting of the World Trade Organization (WTO) held in Doha, Qatar, in November 2001, governments of industrialized countries collectively signed up for a “development round” of multilateral trade talks. The Doha ministerial declaration emphasizes a shared commitment to poverty reduction. It also acknowledges that the benefits of trade need to be more widely distributed (WTO 2001). Northern governments repeatedly point to the development-round commitment as evidence of their concern to create a more equitable pattern of globalization. The question that remains is this: will pleasant words be translated into practical action?

The answer will depend in part on whether the new WTO round resolves long-standing problems in agricultural trade rules. These rules matter for global poverty reduction efforts. Some three-quarters of all people surviving on less than \$1 a day—around 900 million in total—live and work in rural areas (IFAD 2001). Many developing countries depend critically on agriculture for employment, government revenue, and foreign exchange earnings.

Growth based on small-farmer agriculture is one of the most powerful catalysts for poverty reduction because it enables the poor to produce their way out of poverty. Agricultural exports are not an automatic route to poverty reduction: if the poor lack access to productive assets and marketing infrastructure, they are unlikely to benefit from opportunities provided by global markets. However, under the right conditions, agricultural trade can form part of a strategy for rural poverty reduction. Domestic policies are critically important. So, too, are the rules governing competition between labor-intensive smallholder agriculture in developing countries on the one side, and large-scale, capital-intensive agriculture in industrialized countries on the other.

These rules are currently rigged against the poor. Agriculture plays a minor role in the economies of industrial countries. Yet governments in these countries spend \$1 billion a day on agricultural subsidies—six times the amount allocated to aid.¹ Expressed differently, Northern agricultural subsidies exceed the total income of the 900 million people in rural areas of developing countries living below the international poverty line. The support systems that underpin Northern agriculture restrict market access, stimulate overproduction, and finance export subsidization.

Small farmers in developing countries suffer on several counts. They are forced to compete in global and local markets against EU and U.S. surpluses exported at prices that bear no relation to the costs of production. Meanwhile, their entry into Northern markets is curtailed by some of the highest import barriers in the world trading system. The result: lower prices for their output and loss of market shares, with attendant consequences for household poverty. Governments in rich countries may endorse human development goals, but their agricultural policies are at the heart of a system that is perpetuating mass poverty and unequal globalization.

The double standards are self-evident. In their trade policy rhetoric and advice to developing countries, Northern governments are strong proponents of open markets and “level playing fields.” The same governments are seeking to use the WTO to promote rapid liberalization in some areas—such as financial services and investment—where they enjoy an advantage. By contrast, they have systematically failed to apply open-market principles to their own agricultural sectors. In agricultural trade, success continues to depend less on comparative advantage than on comparative access to subsidies—a game that farmers in developing countries lose every time. To make matters worse, major industrialized countries such as the United States and those of the European Union adopt an openly mercantilist approach to agriculture. This combines aggressive strategies to open markets in developing countries with an equally aggressive commitment to protectionism at home.

As the chief economist of the World Bank has written: “It makes no sense, indeed it is hypocritical, to preach the advantages of trade and markets and then erect obstacles in precisely those markets in which developing countries have a comparative advantage” (Stern 2002). The problem with hypocrisy, in international trade as in other areas of life, is that it is easier to identify than to correct—and nowhere is this more true than in the WTO.

Agriculture was brought under formal WTO disciplines through the Agreement on Agriculture (AoA) adopted at the end of the Uruguay Round. However, the disciplines were exceptionally weak. Arguably the most significant outcome was an elaborate restructuring of subsidies to take advantage of loopholes built into the new regime by its main architects, the European Union and the United States. The largest of these loopholes is a provision exempting payments deemed to be “decoupled” from production (and hence “non-trade distorting”) from any subsidy reduction.

Escalating decoupled payments helps to explain how industrial countries have complied with the AoA while increasing support to domestic agriculture. Nowhere is the gap between the letter of WTO law and the spirit of fair trade more evident than in relation to export subsidies. The United States claims to have virtually eliminated such subsidies. Similarly, the European Union has reported deep cuts across most major product groups. Using the WTO definition of an export subsidy as a payment bridging the gap between (higher) domestic guaranteed prices and (lower) world prices, such assessments may be justified. Yet both agricultural superpowers continue to provide multibillion dollar support to products in structural surplus. In the case of the United States, export credits and food aid play a key role in facilitating disguised export dumping. The upshot is that both “agricultural superpowers” continue to

export at prices below those paid to their producers, often below costs of production. Distinctions between the different types of subsidy that make this possible are clearly of great interest to trade lawyers and rich-country negotiators. But they are of less relevance to small farmers in Africa, Latin America, and other developing regions, where unfair competition is destroying real livelihoods. In short, WTO rules are an increasingly inadequate vehicle for addressing one of the most serious problems facing small farmers in global markets.

Will the Doha Round fundamentally change this picture? One positive sign is that some industrial countries now recognize that there is a problem. President Jacques Chirac of France, one of the world's premier export subsidizers, has belatedly acknowledged the damage caused by agricultural dumping in Africa and proposed a temporary moratorium. However, the problem extends beyond Africa—and a voluntary moratorium is not a substitute for binding rules. The direction of farm policy reform gives further cause for concern. Shortly after signing the Doha Declaration the U.S. Administration signed new farm legislation that increases support levels and strengthens the link between farm subsidies and output. In Europe, reform of the Common Agricultural Policy (CAP) is deadlocked. There is now little prospect of an agreement that cuts structural overproduction. Moreover, whatever their wider difference, neither agricultural superpower shows any inclination to address the fundamental inequities that they built into the current system of rules.

Agricultural trade reform confronts policy makers in rich countries with difficult political choices. Powerful vested interests—including large farmers and assorted agribusiness lobbies—have a strong stake in maintaining the status quo. There are obvious political costs associated with challenging these interest groups. The potential winners from reform—a constituency that includes small farmers and the environment lobby in rich countries as well as producers in poor countries—are more dispersed, less organized, and have a weaker voice. But failure to reform agricultural trade at the WTO will not be a cost-free option. The most immediate losers will be a large section of the world's poor. Looking to the future, business as usual will reinforce a system that excludes millions of the world's poorest people from a stake in rising global prosperity. The consequences will extend beyond poor countries. Serious damage will be inflicted on the legitimacy of the WTO and the rules-based system it represents, adding to the widespread—and largely justified—perception that current rules skew the benefits of trade toward the rich and powerful.

This paper is divided into six parts. The first briefly examines the importance of agricultural growth—and agricultural trade—for poverty reduction. It challenges the argument that trade cannot act as a positive force for change. The second part outlines patterns of agricultural support in the European Union and the United States. It explains the structure of the distribution of benefits from that support, highlighting its regressive character. The third section analyzes the impact on poor countries of agricultural support in rich countries, focusing on trade and food security. The next part shows how the new systems of support emerging in the European Union and the United States are maintaining overproduction and export dumping. It challenges the increasingly artificial distinction being drawn between trade-distorting subsi-

dies on the one side, and WTO-friendly decoupled supports on the other. The fifth part extends the analysis into two areas of disguised export subsidization operating entirely beyond WTO rules: officially supported export credit programs and food aid. Both are widely used to facilitate the disposal of agricultural export surpluses, notably by the United States. The sixth and final part looks at challenges in four key areas of the Doha Round negotiations on agriculture: export dumping, domestic support, market access, and the treatment of developing countries.

Agricultural Trade and Poverty Reduction

Industrialized countries continue to dominate world agricultural trade. It follows that their policies have important implications for developing countries integrating into global markets, whether as exporters or as importers. The same policies have a less obvious—but no less direct—bearing on international efforts to reduce global poverty. Rural income poverty is deeper and more pervasive than urban poverty. Moreover, income poverty in rural areas is closely linked with other forms of deprivation, including malnutrition, high child death rates, and illiteracy. In each of these areas, women are disproportionately represented.

Around three-quarters of all people in developing countries with an income of less than \$1 a day—some 900 million in total—live in rural areas. Income poverty may be urbanizing, but current projections suggest that rural areas will still over 60 percent of the poor in 2025 (IFAD 2001, p.15). The vast majority of the rural poor depend on agriculture for their livelihoods.

Growth in the rural areas of developing countries is essential if the Millennium Development Goal of halving income poverty is to be achieved. Cross-country evidence indicates that a 1 percent increase in average income can lower the incidence of poverty by anything from 1 to 3 percent, depending on patterns of distribution (Ravaillon 2000). Rural growth based on smallholder farming is a powerful catalyst for poverty reduction because it concentrates income among the poor (Ravaillon and Datt 1999). That is, it generates a pro-poor distributional bias.

The rate at which rural growth is converted into poverty reduction is conditioned by the rate at which it generates new employment, stimulates local production of labor-intensive goods and services, and creates linkages between the farm and non-farm sectors. Research in West Africa found that every additional \$1 in income in the rural sector generated an additional \$2.88 through increased demand for goods and services (Delgado, Hopkins, and Kelly 1998). Strong linkages and poverty reduction outcomes are far more likely in situations where small farms, rather than large-scale agriculture, dominate. These farms are more labor intensive and more likely to utilize locally produced goods and services. Trade between the farm and the nonfarm sector is vital to agricultural growth and poverty reduction. Small-scale rural enterprises can provide an important source of input supply and employment, while dynamic urban markets provide a source of demand for agricultural surpluses (as can international markets).

The importance of agriculture—and agricultural trade—is also apparent at the national level. In most industrialized countries, agriculture accounts for a small share of GDP, employment, and foreign exchange earnings. In much of the developing world the reverse holds true: agriculture is the major source of employment, income, and exports. For middle-income developing countries, agriculture accounts for 17 percent of GDP, rising to 35 percent or more in the poorest countries (OECD 2000a, p. 21). In Africa, agriculture accounts for about 70 percent of overall employment (Binswanger and Lutz 2000). According to the Food and Agriculture Organization (FAO), agricultural exports exceed one-third of the total in almost half of developing countries (FAO 2000). Such facts caution against the neglect of agricultural trade in any attempt to achieve more equitable globalization.

Agricultural Trade Can Enhance Food Security

Serious concerns have been raised about the possible consequences of an increase in agricultural exports from developing countries. Some of these concerns reflect broader concerns about globalization: namely, that commercial trading opportunities will either bypass or further marginalize the poor, exacerbating inequality and poverty. Such views are not new. For many years a debate has raged between those who claim that export crop production leads to poverty and declining food availability, and those who argue, to the contrary, that increased earnings from export production can raise household incomes and increase food consumption (see Maxwell and Fernando 1989 for a review). That debate remains central to any assessment of the benefits—and costs—of agricultural policy reform in industrialized countries.

Recent years have witnessed some new variations on old themes in the debate on agricultural exports and poverty. The French minister for agriculture, Hervé Gaymard, has publicly contested the claim that the CAP is bad for developing countries, partly on the grounds that small farmers in poor countries should not be exporting. “Self-sufficiency in food,” Gaymard and other European agricultural ministers wrote to the *Financial Times*, “is seriously undermined by the destruction of traditional agriculture in favour of cash crops” (Boden and others 2002). This is a throwback to an earlier generation of “food first” approaches to agriculture. Producer groups representing big farm interests in the European Union have voiced similar views. Indeed, some of the sternest warnings against agricultural exports in developing countries come from agencies representing some of the European Union’s most heavily subsidized exporters. One recent contribution from the EU large-farm lobby argues for an anti-export strategy in developing countries, ostensibly on the grounds that volatile world markets will increase vulnerability. The same organization argues against “weakening the CAP through the reduction of support subsidies,” suggesting that exports are good for farmers in the European Union, but bad for their counterparts in poor countries (COPA 2003).

From a different perspective, some antiglobalization advocates also argue against agricultural exports from developing countries. In a strident critique of Amartya Sen’s suggestion that agricultural trade might enhance the welfare of the rural poor,

Vandana Shiva has written: “Export-oriented agriculture robs the poor of their land, their water, and their livelihoods. There is an inverse relation between increasing agricultural exports and declining food consumption locally and nationally” (Shiva 2002). When it comes to agricultural trade, it appears, the world views of some EU governments, lobbies representing large-scale agriculture, and some parts of the anti-globalization movement are closely aligned.

Claims to the effect that agricultural exports are inherently bad for smallholder producers do not stand up to scrutiny. When poor farmers have opportunities to produce for global markets they are often able to boost and diversify their income, create employment opportunities, and reduce vulnerability. For example, low-income female farmers in Ghana have been able to increase their income and extend their land rights by participating in cocoa production for export in an intercropping system that includes food staples. Income and nutrition levels have both improved (Quisumbing et al. 2002). In central Kenya, Honduras, and the western highlands of Guatemala, small farmers have benefited from new opportunities to earn income from producing high-value fruit and vegetables (Diaz-Bonilla and others 2003). The rapid growth of cotton cultivation in West Africa has been associated with improvements in income and other development indicators among smallholder farmers. Most of these farmers intercrop cotton with maize and other staples, such as cow peas (Badiane and others 2002). Poor farmers are as likely to grow cotton as richer farmers, and there is no evidence that income from cotton cultivation has weaker multiplier effects for rural income than do other crops. One study in Benin finds a ratio of 1:2.7 for the multiplier, with no evidence that cotton was proportionately more important in the income of richer than poorer households (Minot and Daniels, pp. 7–8).

If it were true that export crop production *necessarily* expanded at the expense of domestic food production, there would be serious implications for poverty. But there is little evidence to substantiate such a claim. In Vietnam, rice exports increased rapidly in the 1990s, capturing 9–17 percent of the world market. Rising incomes from exports supported wider forces adding to the dynamism of the rural economy, with the incidence of poverty falling from 70 percent in 1987 to 32 percent in 2000 (Government of Vietnam 2001). In Uganda, increased production and exports of nonfood crops from the early 1990s boosted agricultural growth and incomes, creating a virtuous circle of increased investment, a rise in food crop production, and a decline in rural poverty from 60 percent to 39 percent between 1992 and 2000 (World Bank 2001).

In some marginal and arid agricultural areas, cash cropping is vital for survival. Many farmers grow trees that shade other crops and generate an income, while providing important social and environmental benefits such as protection against soil erosion. Commercial tree and food staple intercropping makes sense because it is often more efficient and sustainable than pure food crop enterprises, partly because of improved yields and partly because of the ease of storing and transporting tree products. Cross-country comparisons suggest that export crop and food staple production are often positively correlated. One of the most comprehensive longitudinal assessments of food and cash crop production, involving 11 different sites, reached the following conclusion: “Most countries either manage a combination of growth

in cash cropping and food production or fail to manage either” (von Braun and Kennedy 1994).

The Benefits of Trade Are Not Automatic

Although the case against agricultural exports is weak, it does not follow that the benefits of agricultural trade are automatic. Export agriculture can exacerbate inequalities—and globalization is raising the barriers to market entry faced by the poor. The persistence of these problems bears testimony to the importance of looking at agriculture within an integrated framework for poverty reduction.

Other things being equal, if relative prices dictate a higher return at the margin from producing an export crop, there is an obvious incentive to produce for export. But other things are not equal, including access to productive assets and the division of labor between men and women. Export agriculture, like commercialization in general, can exacerbate intrahousehold inequalities, with men increasing their cash income while women and children may lose part of their previous food supply and face increased labor demands. Similarly, export crop production may precipitate a land grab, in which the rich and politically influential dispossess the poor. The privatization of land rights that often accompanies the commercialization of farming can be a mixed blessing for the poor. Land privatization can increase this risk. Individualized land rights can enable those with political power and better access to credit and technology to accumulate land at the expense of the poor (Binswanger, Deininger, and Feder 1995). In some cases, export agriculture is highly capital-intensive, creates few jobs, can displace small farmers, and creates environmental destruction. Soya production in Brazil is often cited as an example (CAFOD 2002). More recently, intensive prawn cultivation has been associated with severe environmental damage and social conflict in Bangladesh (World Bank and others 2002).

What is clear is that poor farmers in general, and women farmers in particular, face high barriers to entry in export markets (see Killick 2001 and IFAD 2001). The rural poor typically have either very small plots or larger areas of low-quality land. Many lack access to water. Weak infrastructure raises the costs of marketing and inputs, making it difficult for farmers to compete against imports in urban markets, or to enter export markets. Remoteness raises transaction costs, reduces farm-gate prices, and reduces incentives to enter new markets. In other respects too, small-scale farmers face acute disadvantages. Poor farmers rarely have access to credit or other financial services, and do not have access to the technologies and market information they need to respond to market opportunities. In each of these areas, women farmers face an especially acute disadvantage, often reinforced by weak land rights and unequal intrahousehold relations. Female smallholders also have less access than men to education and training, and less command over resources such as land, credit, and capital. In some countries, the sexual division of labor precludes women from control over income derived from cash crops. When irrigation was extended to rice cultivation in the Gambia, with associated requirements for inputs such as fertilizers, rice fields moved from female to male control (IFAD 2001, p. 174).

The paradox of globalization is that it is creating new opportunities for poverty reduction through agricultural trade, while at the same time reinforcing many of these structural inequalities. Poor farmers are often excluded from high value-added markets because they lack access to resources—such as credit and marketing infrastructure—vital to market entry. In Central America the production of flowers for export has been dominated by large-scale commercial farms. Small producers lack the capital and other resources needed to enter markets (Thrupp 1995). Multinational processing firms and supermarket chains often reinforce the disadvantages faced by the poor. They occupy increasingly dominant positions as gatekeepers to markets, and small farmers often find it hard to meet their purchasing requirements for quality and just-in-time delivery. Supermarket procurement practices—such as delayed payment, purchasing from large-scale wholesalers, and short-term contracts—reinforce barriers to market entry (Reardon and Berdegue 2002, pp. 381–2). Small farmers in Mexico have been bypassed by the expansion of agricultural exports, partly as a result of the bias of corporate U.S. processors and retailers toward large-scale commercial farms.

Set against these cases, there are examples of small farmers who have successfully developed cooperative marketing arrangements that overcome the disadvantages of small-scale production (Delgado, Minot, and Wada 2001; IFAD 2001).

Public policy holds the key to the creation of more equitable market structures. Large commercial farms do not have automatic economic advantages. Indeed, there is considerable evidence that small farms use resources such as land, labor, and inputs more efficiently than large farms do—and that they respond rapidly to market opportunities. But in the absence of institutions that make markets work for the poor, globalization can be expected to increase return to scale and exacerbate inequalities. That is why trade policy has to be seen as an integral part of national poverty reduction strategies. Land redistribution, recognition of communal land rights, development of marketing infrastructure, and provision of services to women farmers all have a key role to play in extending opportunity. Measures to reduce costs to small farmers through improved transport infrastructure, access to inputs, market information, and credit are also vital. Such measures require an active state and market intervention. One of the legacies of the structural adjustment era is a widespread view that market liberalization will automatically benefit the poor, linking them to markets through competitive private trading systems. The assumption is that “free market” mechanisms will provide poor farmers with the information, inputs, and wider services they need to enter global markets. That assumption is flawed. In many cases, market liberalization has been associated with the collapse of input, credit, and marketing services of vital importance to the poor. This helps to explain why supply responses to liberalization have been so weak in many countries (Jones 1998; Kasekende and Atingi-Ego 1999).

In summary, there is no question that production for export—like commercialization in general—*can* marginalize the poor. By the same token, participation in international trade can enhance the livelihoods of the poor, providing new opportunities for employment, income generation, and diversification. Specific outcomes will

depend on the constraints facing poor producers and on the degree to which institutions and public policies succeed in overcoming the inherent disadvantages associated with poverty. Closing the door on trade in favor of production solely for local markets would deny poor households and developing countries the potential benefits of integration into global markets. The real challenge in this context is to develop responses that make trade work for the poor—and to change the policies that skew the benefits in favor of the rich. The agricultural policies of Northern governments fit into this latter category.

Agricultural Support in the European Union and the United States

The dominant tendency in agricultural policy over the past century in both the European Union and the United States has been the development and refinement of market intervention in various forms and guises (Cathie 1985). Governments have assumed an increasingly important role in determining the overall structure of production, trade, and distribution of farm income. Initially the motivation was to protect rural livelihoods and food self-reliance. Current policies can be traced back to the experience of the Dust Bowl in the 1930s in the United States and post-World War II food shortages in Europe. But whatever their original intent and policy variations, intervention policies have displayed an inbuilt tendency to generate large surpluses, along with associated problems of surplus disposal. Current tensions between the European Union and the United States at the WTO mark the latest phase in efforts to develop a set of multilateral rules for dealing with these problems.

Average Incomes Conceal Large Inequalities

Public policies have interacted with and reinforced other factors, including technological change, farm consolidation, and rural-urban migration, to transform the face of agriculture in industrialized countries. Rising productivity has enabled a rapidly diminishing number of increasingly large, highly capitalized farms to expand output, while food expenditure has declined as a share of disposable income.² Technological change and public policy choice have combined to foster a “get big or get out” syndrome in farming.

Increasing scale bears testimony to the syndrome. The average American farm has doubled in size over the past 40 years. Europe’s 4 million farmers today produce more food than did the 15 million in the original six member states. The dairy sector graphically illustrates the twin process of rising productivity and concentration. Over the past two decades two-thirds of Europe’s dairy farms have disappeared, while milk production has increased by a factor of three (European Communities 2001, p. 10). In the United States, the number of farms with fewer than 50 cows fell by 40 percent between 1995 and 2001 alone. Just 5 percent of farms now account for almost one-half of output (McElroy et al. 2002). Parallel to this within the farm sector has been the growth of corporate control over input provision, retailing, and

export activity, with small clusters of companies dominating national and international markets.

Increased productivity has brought average farm income broadly into line with national incomes (OECD 2003). However, averages conceal large differences: income distribution is far more unequal in agriculture than in the wider economies of industrialized countries. In the United States, almost half of farm households have both higher income and greater wealth than the average American household (McElroy et al. 2002). Within this group, the 175,000 commercial farms with sales of over \$250,000 a year represent 8 percent of all farms, but account for 68 percent of total output by value. At the other end of the spectrum, small farms (defined as those with sales of less than \$250,000) account for over 60 percent of the total number, but less than 10 percent of output (Hoppe et al. 2001). Many of these farms record income levels below expenditure, pointing to the importance of nonfarm income in the household economy.

Similar patterns of concentration have emerged in the European Union. Eurostat data indicate that 226,300 farm holdings, about 3 percent of the total, are 100 hectares or larger in size. These holdings account for 53 million hectares out of 123 million under cultivation, and for something between 50 and 70 percent of total agricultural production (IEEP 2002). Classifying European farms on the basis of gross margins provides a further insight into income inequalities. The largest 17 percent of farms have incomes that exceed the EU average, while the smallest 60 percent receive an income equivalent to less than half of that average (ABARE 2000).

Average incomes also conceal the scale of rural deprivation and poverty in industrial countries. While farm households may enjoy income levels that are on average close to those for the rest of society, there is a higher incidence of low income. In addition, the gap between the average income of households on low income and the average for the sector is wider than for the rest of society (OECD 2003, p. 34). This indicates that agricultural policies have failed adequately to target those most in need, or to address problems of rural deprivation. In the United States the rural poverty rate, defined in terms of a basic needs minimum income, is some 30 percent higher than it is in nonrural areas (Jolliffe 2002). In the European Union, low income is among the most potent forces driving the exodus of small farmers from the land: France alone has lost one-quarter of its farmers since the mid-1980s (OECD 2002a, p. 66).

Measured in economic terms, farming has become a marginal activity in most industrialized countries. Viewed from a different perspective, the farm sector is now the smallest link in a far wider agro-processing chain extending from input suppliers to food processors and retailers.³

Value-added increasingly takes place beyond the farm gate in a wider agri-food system. That system includes upstream industries supplying farmers with inputs such as machinery and chemical inputs, and downstream industries such as processors and retailers. In the United States, more than 80 cents in every dollar spent on food products went toward value-added services and materials—transportation, processing, distribution, and labor (Martinez 2002). Smallholder farmers in industrialized

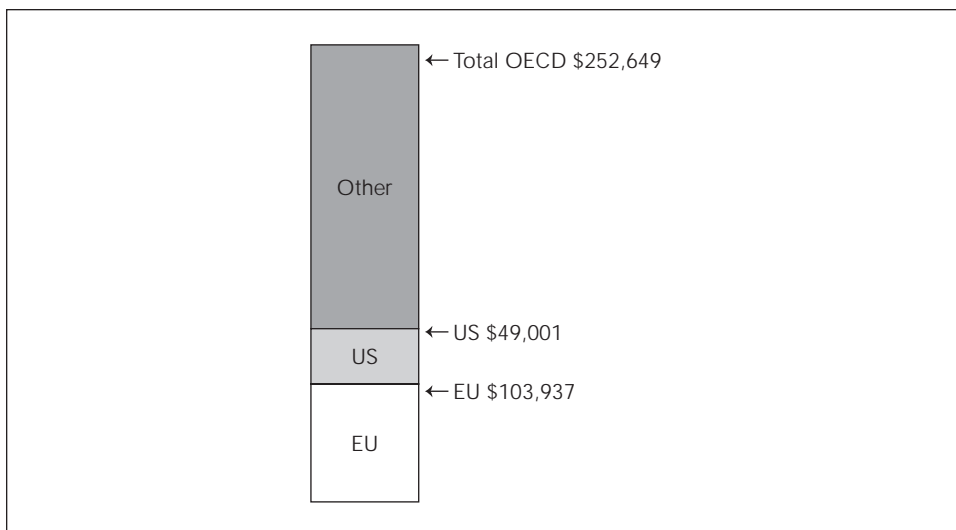
countries have found themselves squeezed between price pressures from input suppliers and increasingly concentrated processing and retailing sectors. Their share in the retail price of food has declined, partly because of the rapid growth of value-added in processing and retailing, but also because of the weakness of farmers in the marketplace.

Agricultural Support in the European Union and the United States

There are wide variations in the systems of financial support geared toward agriculture in the European Union and the United States. These systems have been in a constant state of flux for the past decade, but there are two powerful elements of continuity: high levels of support and highly unequal distribution of support.

Industrialized countries spend just under \$1 billion a day supporting farm incomes—around six times the amount they dedicate to overseas aid. The European Union and the United States account for a large share of this overall support. Measured in terms of the OECD's Producer Support Estimate (PSE), they provide \$152 billion, or two-thirds of the total (figure 1).⁴ Transfers to producers represents about one-third of the value of output in the European Union and one-fifth of the value in the United States. About two-thirds of agricultural support in OECD countries is provided through policies that keep producers' prices above levels that would otherwise prevail (OECD 2002b).

FIGURE 1.
Support for OECD Agriculture: Producer Support Estimate (2001)
in millions of dollars



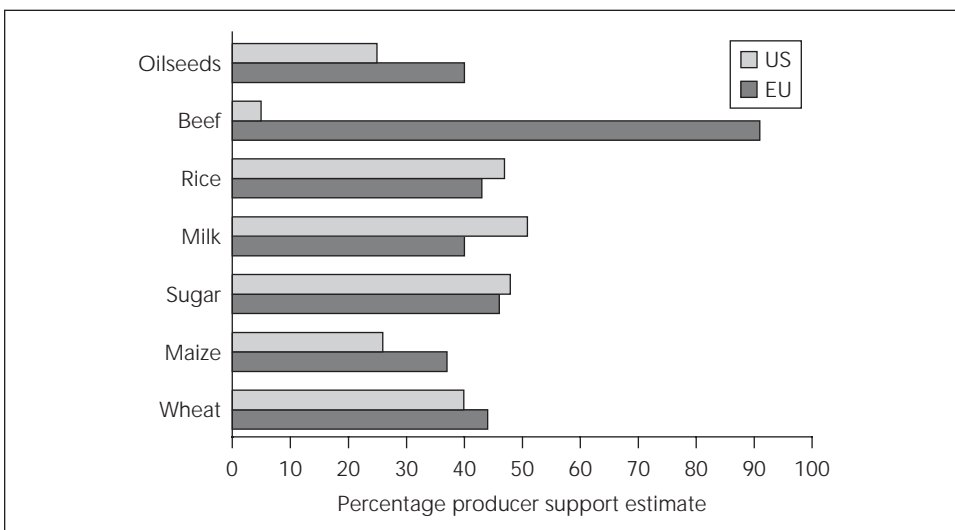
Source: OECD 2002a.

Note: This figure is based on the OECD's Total Support Estimate (TSE). It captures the annual value of all gross transfers from taxpayers and consumers, regardless of their objectives or impacts on production, income, or consumption (OECD 2002a: Table 111.2, p.159).

Governments frequently resort to creative subsidy accounting to paint each other in an unfavorable light. In recent exchanges, the U.S. Agriculture Secretary has pointed out that the European Union's support to agriculture as measured by the PSE is higher in absolute terms, higher per hectare, and higher in relation to the value of output than that of U.S. support. The traditional European response is to point out that average PSE per farmer in the United States is higher than it is in the European Union; and that the \$70 billion American budget for agriculture is almost double spending under the CAP. In 2001 per capita overall support to producers reached \$21,000 in the United States compared with \$16,000 in the European Union (OECD 2002a). These figures reflect differences in agricultural structure. The main difference between the European Union and the United States is one of size: Europe has one-third the farmland area under cultivation as the United States, and America has less than one-third of the number of farms in the European Union—2 million as against 7 million.

National rivalry aside, PSE averages are misleading in at least one respect: support to U.S. agriculture is heavily concentrated on a small number of major commodity programs. The lion's share is directed toward wheat, rice, feed grains, and cotton. These crops account for around one-third of the total value of crop output but some 70 percent of budget outlays (Roberts and Jotzo 2002). The concentration of payments between producers is even more skewed. The one-quarter of farms classified as wheat, maize, soybean, and mixed grain operations jointly receive almost two-thirds of payments (ERS 2003a). The upshot is that PSEs for some major crops in the United States rival those of the European Union (figure 2).

FIGURE 2.
Producer Support Estimate for the European Union and the United States:
Selected Major Crop Programs (2001)



Source: OECD 2002a.

EU and U.S. agricultural support policies have global implications. Apart from being large import markets, they are significant players in a wide range of export markets. It follows that policy interventions designed in Washington or Brussels have an important bearing on market conditions for farmers elsewhere, including those in the developing world (figure 3).

The recent history of agricultural policy in both the European Union and the United States is a history of surplus production. Government support, interacting with productivity increases driven by technological change, has increased output for

FIGURE 3A.
Exports as a Share of Production: The European Union and the United States (1995–9 average)

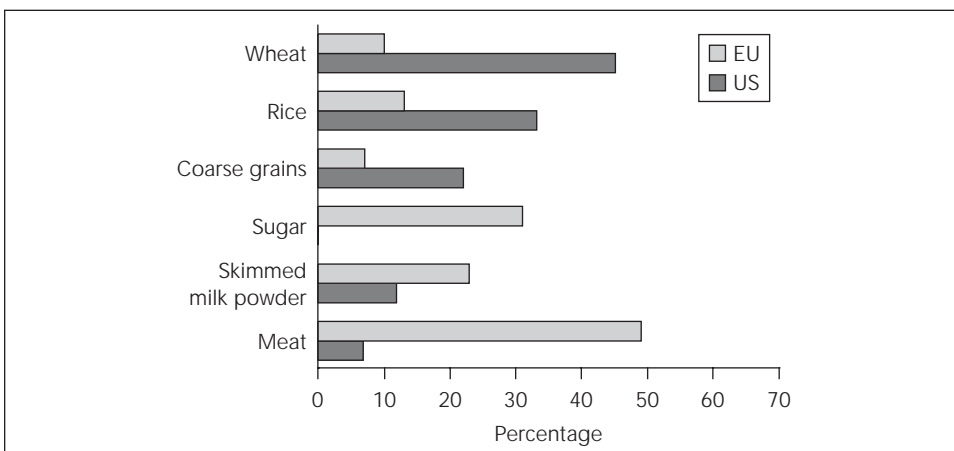
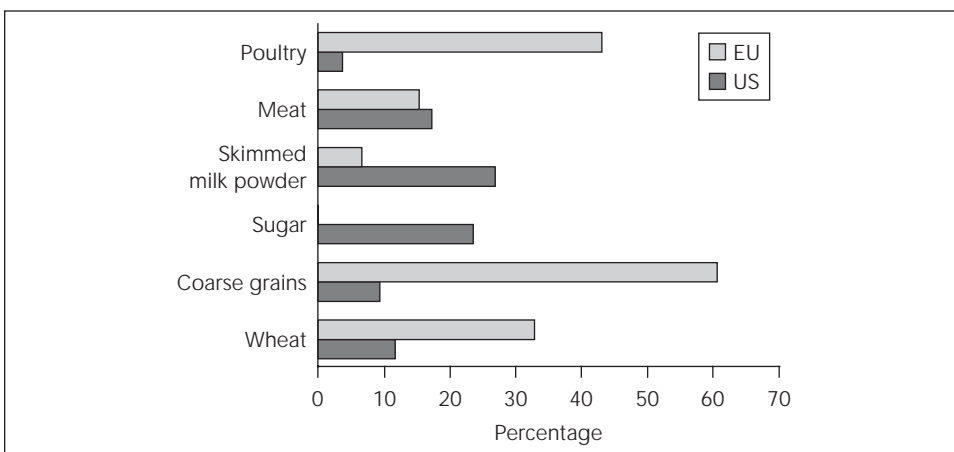


FIGURE 3B.
The European Union and the United States: World Market Shares, Selected Crops (1995–9 average)



Source: OECD 2002a, USDA 2002

a wide range of crops more rapidly than domestic demand. The result: large surpluses and a dependence on exports to absorb them. Today, exports absorb more than one-quarter of the production of commodities such as wheat, rice, coarse grains, and cotton in the United States. World markets play a similarly critical role for sugar, dairy, meat, and—to a lesser extent—cereals for the European Union. Export dependence goes hand-in-hand with global market domination. The United States is the world's largest exporter of coarse grains, feed grains, and cotton, and a major exporter of wheat and rice, as well as being a large import market. Similarly, the European Union is a major exporter of sugar, dairy, meat, and cereals.

Agricultural support and market access restrictions have a major bearing on the agricultural trade balances of both the United States and the European Union. Export of agricultural commodities plays an important role in the U.S. balance of payments. The country posts a large surplus in agricultural trade, typically in the range of \$10 to \$20 billion. This surplus helps offset deficits in other areas (ERS 2003b). Representatives of the European Union like to point to Europe's deficit in agricultural trade as an example of a commitment to open markets. Such claims face two fundamental problems. First, the agricultural trade balance is a weak proxy for openness: matters of geography, history, and competitive advantage are far more relevant. Second, over the past decade the European Union has reduced its deficit from almost \$7 billion to \$200 million (European Commission 2002b). Exports (which are subsidized) have grown far more rapidly than imports (which face high tariffs).

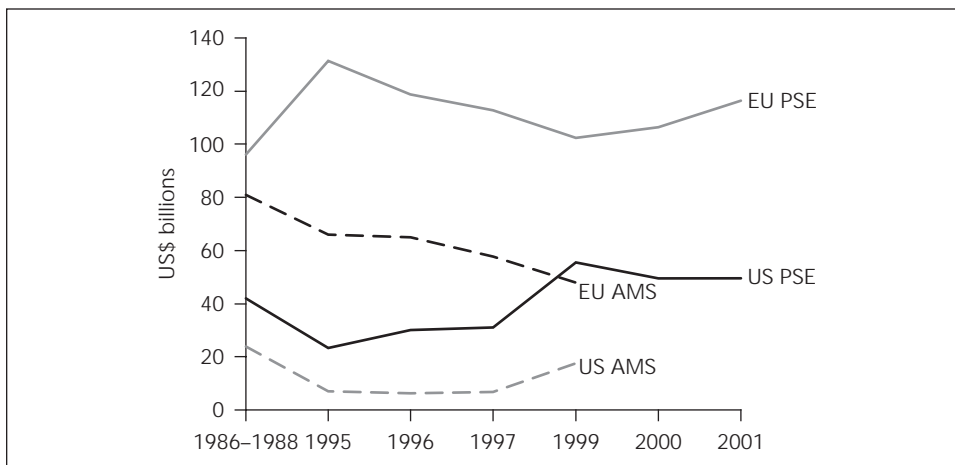
To the extent that support policies in the United States and the European Union encourage production, reduce import demand, and generate exportable surpluses, they depress world prices. The impact on world markets will be determined by the volumes exported and their size relative to world trade: the larger the increase, the larger the price-lowering effect. In addition, policies that insulate producers from world prices have the effect of transferring adjustment costs elsewhere, destabilizing world prices in the process (Tyers and Anderson 1992). This is especially true where support is countercyclical, or inversely related to market price trends.

When Is a Subsidy Not a Subsidy?

Under the Uruguay Round AoA, the United States and the European Union, along with other industrialized countries, agreed to cut overall support to agriculture by 20 percent. The move was widely heralded as a major breakthrough, and both parties have complied with the letter of the agreement. Yet average overall government support as measured by the PSE rose from an average level of \$238 billion in 1986–8 (the reference period for subsidy reductions) to \$248 billion for 1999–2001. How did rich countries comply with the subsidy-cutting requirements of the AoA while increasing real support levels?

The answer to the conundrum is to be found in the terms of the AoA, which were dictated by the European Union and the United States. Under the AoA, a distinction was drawn between two different types of subsidy. "Trade-distorting" government support was to be subject to WTO disciplines and agreed cuts. Other subsidies,

FIGURE 4.
The Widening Subsidy Gap: Producer Support Estimates and Aggregate Measure of Support for the European Union and the United States (1986/88–2001)



defined as “non-trade distorting” and deemed to be decoupled from production, were exempt from these disciplines. For WTO purposes, trade-distorting subsidies are quantified through an aggregate measure of support (AMS), which is subject to annual reduction commitments. More restrictive than the PSE, the AMS excludes a wide range of budget payments and other measures.⁵

Figure 4 demonstrates why these apparently technical differences matter. It shows that both the European Union and the United States have cut their AMS payments, while maintaining broadly constant overall support levels. Much of the cut was a product of subsidy accounting: a large share of government support was simply removed through a process of redefinition. In the 1986–8 base period, the AMS for U.S. agriculture represented 57 percent of the PSE. By 1997 it had fallen to 20 percent (OECD 2001a). The change was only marginally less dramatic for the European Union. The ability of the European Union and the United States to maintain high levels of support while complying with WTO rules has profoundly important implications for the structure of competition between producers in rich countries and those in developing countries (see the section on the Impact of Northern Agricultural Policies).

Support Systems Vary

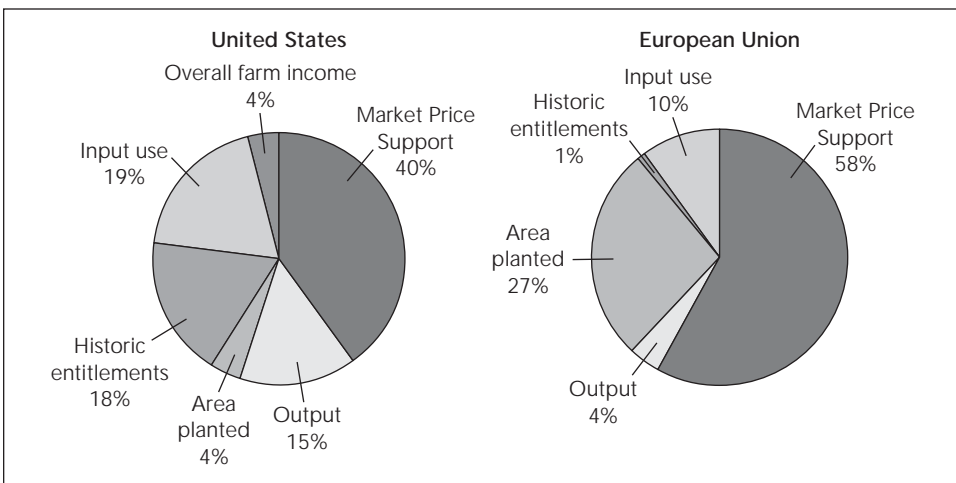
The structure of agricultural support varies across countries and commodities. Market effects reflect differences in structure as well as overall levels of support.

Industrialized countries protect their agricultural systems through a diverse array of policy instruments. In Japan, for instance, support is provided almost entirely by import restrictions that alter relative prices. Limited use is made of export subsidies.

Within the European Union, the Common Agricultural Policy (CAP) is built on a distinctively noncommon set of regimes. The dairy and sugar sectors rely on import barriers to protect domestic prices, which are set well above world market levels. Both sectors rely heavily on export subsidies to dispose of the large surpluses generated through price incentives. By contrast, guaranteed prices in the reformed cereals sector are set closer to world market levels, with producers compensated through direct payments based on land holding and levels of production. In the United States, import barriers are high for both dairy and sugar products. Elsewhere, U.S. support is concentrated on a range of direct payments. In 2000, these payments represented 50 percent of the total net farm income as government support compensated producers for declining prices (ERS 2001). Figure 5 illustrates the differences between systems of support in the European Union and the United States.

Static snapshots of current policies obscure important changes in the direction of policy reform. Both the United States and the European Union are shifting support away from traditional market interventions, such as the maintenance of high guaranteed payments, and toward direct payments. For example, the Agenda 2000 reforms in the European Union introduced deep cuts in institutional prices for several products, with producers compensated through direct payments. These payments accounted for less than 10 percent of total support at the end of the 1980s, but for almost 60 percent at the end of the 1990s (European Commission 2002b). However, overall payments remain closely linked to productive capacity, with subsidies based on past production and land ownership. Expenditure on social and environmental measures—the so-called second pillar of the CAP—remain limited, accounting for less than 5 percent of the total CAP budget (Thurston 2002).

FIGURE 5.
Producer Support Estimate Structures: Distribution for the European Union and the United States (2001)



Source: OECD 2002a.

The received wisdom on both sides of the Atlantic is that direct payments have less influence on production than indirect payments. That interpretation is highly questionable. Clearly, different support systems have different effects on production, consumption, trade, and prices; and some systems have more impact on production than others. But many payments categorized as decoupled for WTO purposes do influence production decisions at the margin, producing effects similar to market-based production and export subsidies—an issue to which we return in the third part of this paper.

Who Benefits from Agricultural Support?

Before turning to an assessment of the problems faced by producers in developing countries, it is worth considering the distribution of benefits from agricultural support. Producer subsidies generate winners as well as losers. Evidence from the European Union and the United States suggests that they do so on a highly regressive basis, with support inversely related to need.

Policy makers in industrialized countries like to point to a range of presumed benefits derived from agricultural support payments. Social equity figures prominently. In the European Union, recent policy rhetoric has provided some imaginative new twists to some familiar old themes. One recent contribution to the *Financial Times*, signed by seven European Union agriculture ministers, declared the CAP a central part of the European “social model,” emphasizing its role in limiting market-based inequalities in income and protecting the rural way of life: “For us, agricultural products are more than marketable goods. They are the fruits of a love of the land. . . . Europe should be proud of its model of European civilisation” (Boden and others 2002). Agricultural policy rhetoric in the United States harks back to the spirit of Thomas Jefferson, with political leaders stressing the economic and moral virtues of small family farmers. To quote President George Bush following the authorization of the controversial Farm Security and Rural Investment Act (FSRIA) of 2002 (2002 Farm Act): “They show the character and values that have made this country strong, values of love and family ... and respect for nature” (cited in U.S. Congress 2002a). Whatever the wider differences, there is, it seems, a similar unity of purpose in rationalizing farm support programs by reference to the interests of small producers.

Reality is more prosaic. Far from benefiting small farmers, agricultural support goes overwhelmingly to large-scale, capital-intensive agriculture, and for a good reason: support is closely correlated with production levels, or—in the case of direct payments—to land ownership. In other words, support levels are a function of output and assets. Given the highly unequal pattern of production described earlier, it is unsurprising that the support model produces highly regressive outcomes, with large farmers capturing a disproportionate share of support benefits.

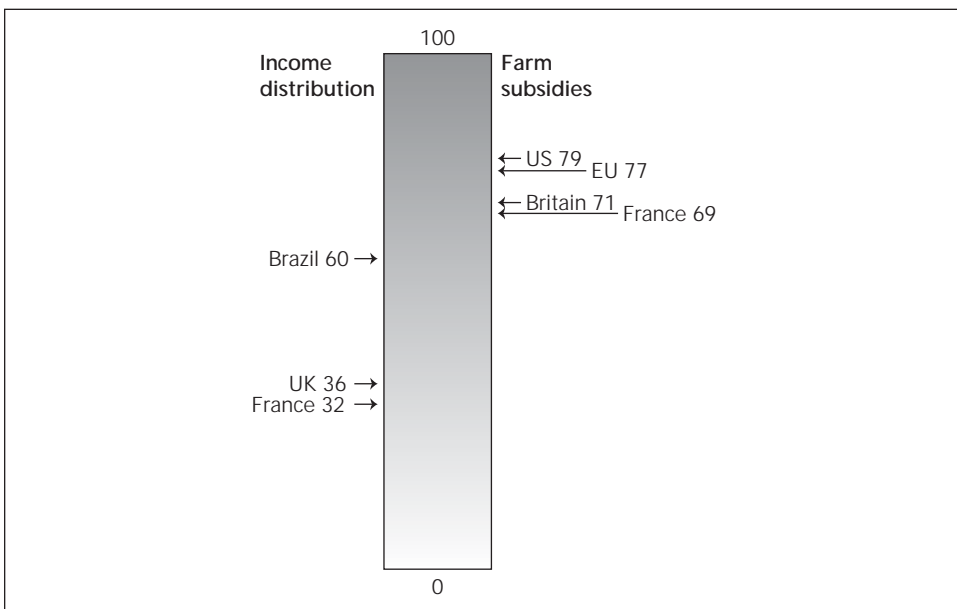
The perverse distributional effects of farm support programs can be illustrated by constructing Gini coefficients for the distribution of farm subsidies. There are obvious technical problems with this exercise. Subsidies are not a proxy for overall income, though there is a correlation. Data present further problems. In contrast

to the continuous income distribution data available for the construction of household income-based Gini coefficients, we have only grouped data for the distribution of subsidies. There is relatively little information available about intra-group distribution. However, the mean subsidy for any given range provides an indicative figure.

With these caveats in mind, we have constructed Lorenz curves and estimated Gini coefficients for the distribution of agricultural support in the European Union as a whole, and individually for France, Britain, and the United States. The results point to an extraordinarily high degree of inequality (figure 6). Distribution of agricultural support in industrialized countries is far more unequal than the distribution of income in the world's most unequal countries. For example, Brazil and South Africa, two of the world's most unequal countries, register Gini coefficients of 60. This compares with coefficients for the distribution of agricultural subsidies of 79 for the United States, which operates the most unequal system, and 77 for the European Union. Lorenz curves for distribution are shown in figure 7.⁶

In one important respect, the Gini coefficient understates the degree of inequality in agricultural subsidy systems. Because the coefficient is based on distances from the mean, it is more sensitive to changes in the middle of the distribution curve than at the lower and upper ends. In both the European Union and the United States there is a marked concentration at the ends of the distribution curve.

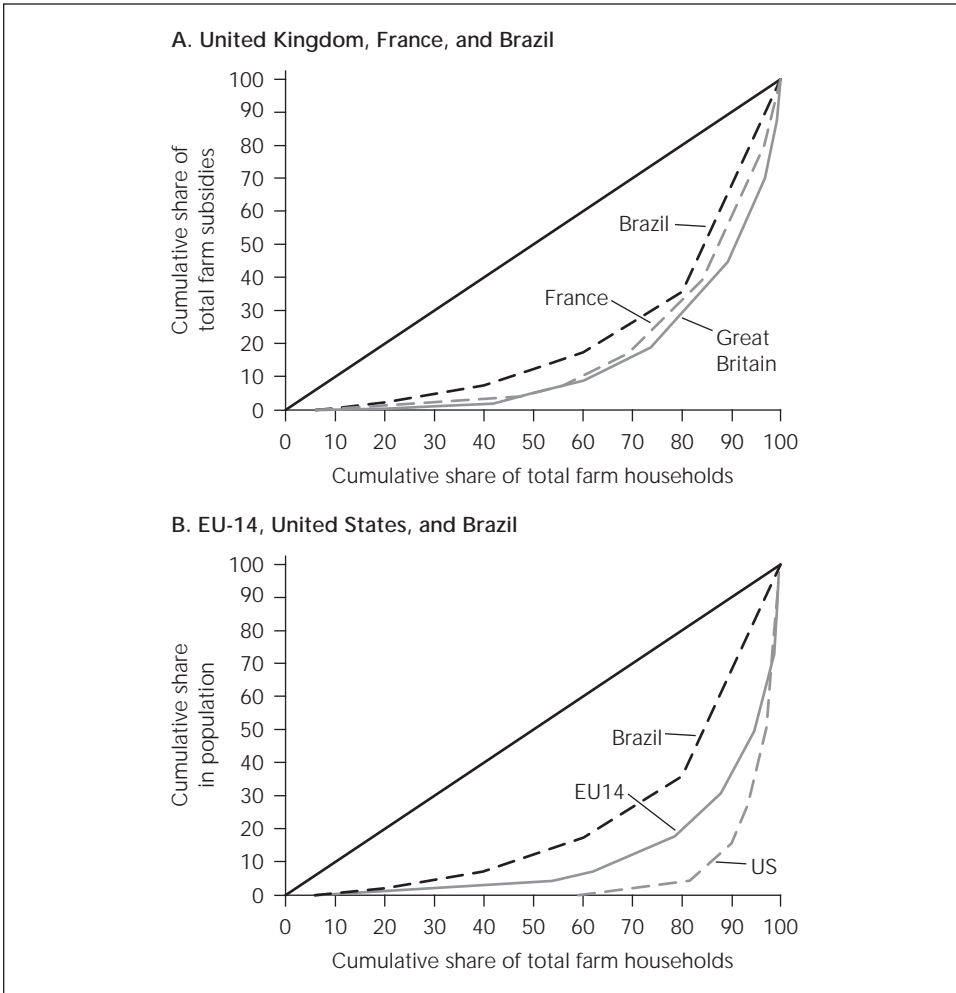
FIGURE 6.
Gini Coefficients for Agricultural Support and National Income
(selected countries)



Source: World Bank 2002b.

FIGURE 7.

Subsidizing Inequality: Lorenz Curves for Farm Subsidies in the United States and the European Union and Income Distribution in Brazil

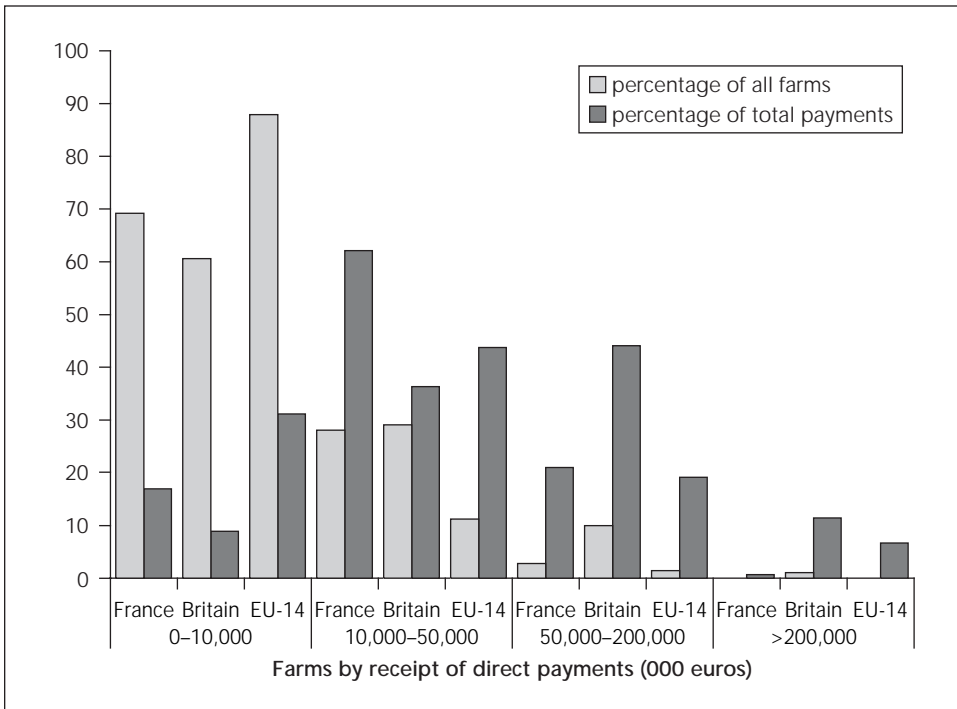


Source: Oxfam.

In the case of the European Union, data from the European Commission (summarized in figure 8) reveal a gap between social model principles and actual subsidy distribution.⁷ The CAP may be good for the grain barons of East Anglia and the Paris Basin, but it is of more dubious benefit to poor farmers in more marginal areas. The following facts powerfully demonstrate the scale of inequality:

- Just over one-half of EU agricultural producers—some 2.3 million farmers—receive €0–1,250 annually in direct income transfers, accounting for just 4 percent of total payments. Around 5 percent of farms receive one-half of total subsidies.
- France has one of the most highly skewed patterns of subsidy distribution in the European Union, especially at the lower end of the range. Around one-third of

FIGURE 8.
The Distribution of Agricultural Support in the European Union by Size of Payment (2001)

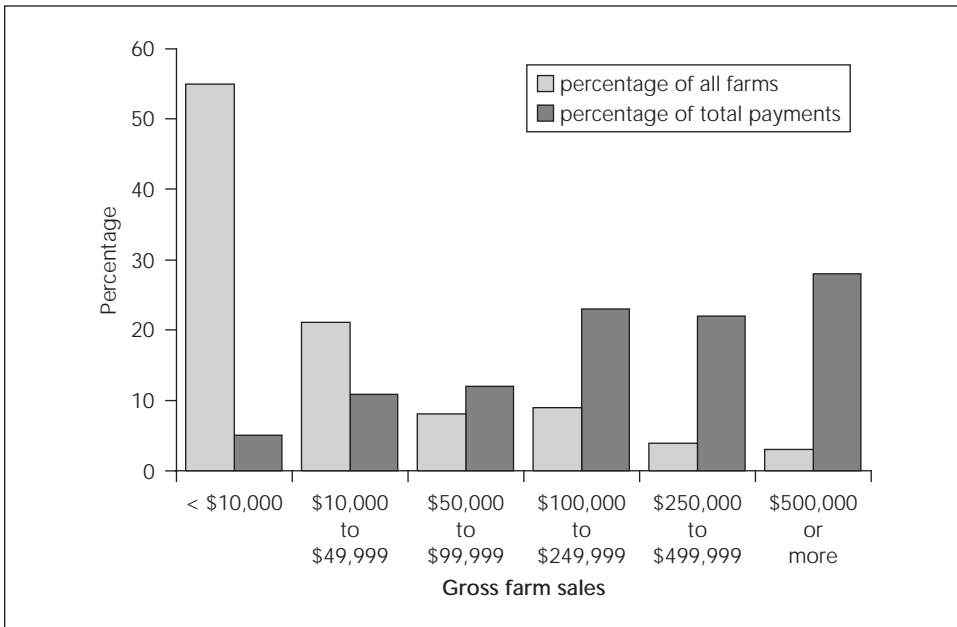


farms receive €0–1,250 each year. Within this group one-quarter receive nothing. The 15 percent of farms receiving more than €20,000 account for 60 percent of total payments.

- Subsidy distribution in the United Kingdom provides the mirror image of that in France, with a marked bias at the upper end of the distribution range. Just 870 farms—less than 1 percent of the total—receive 11 percent of total subsidies, or payments in excess of €200,000 a year. The top 5 percent of subsidy recipients account for over one-quarter of total payments. At the other end of the scale, one-quarter of all farms receive €0–1,250.

As in the European Union, government support in U.S. agriculture is highly skewed at both ends of the distribution curve (figure 9). Contrary to its stated purposes, the support system is exacerbating, rather than closing, income inequalities. In 2001, 60 percent of U.S. farms received no government payments at all. Of those receiving payments, the bottom half of recipients accounted for 5 percent of the total disbursed. By contrast, producers with sales exceeding \$250,000 accounted for 7 percent of farms, but for 50 percent of receipts from government payments (McElroy et al. 2002, p. 28). Given that this group has by far the highest net income in the farm sector, the system is highly regressive. Average household incomes on the farms in question are more than double the average national household income

FIGURE 9.
The Distribution of Direct Payments for Agriculture in the United States
by Size of Payment (2001)



Source: McElroy et al. 2002.

(Roberts and Jotzo 2002, p. 58). The highest payments went to cotton farmers—a sector dominated by large-scale commercial operations. As in the European Union, the much larger payments going to big rather than smaller farms arises because support has been related to production levels and land size.

Research by the United States Environmental Working Group, using records of actual payments to farmers, further illustrates the scale of inequity. Its analysis covers the main forms of direct payments provided under the previous Farm Act. For the period 1996–2000, the study identified 100 farms receiving subsidies in excess of \$2.4 million (Environment Working Group 2002). Commercial secrecy makes it impossible to conduct a similar analysis for the European Union—pointing to an obvious area for governance reform.

The picture that emerges from a consideration of the facts on the distribution of agricultural subsidies is the opposite of that painted in public policy debates. Indeed, if policy makers were seeking to create a system of support designed to maximize inequality they would be hard pushed to better current arrangements.

“Second Round” Effects Are Equally Regressive

Agricultural support systems further skew distribution through “second round” effects created by leakage. By stimulating output, and hence demand for inputs,

much of the finance pumped into agriculture is paid back out to input suppliers, or capitalized into land value. Only a small part of the overall benefits trickles down to farmers.

Not surprisingly, input suppliers reap a large share of any benefits associated with input subsidies. By encouraging high productivity, the CAP has stimulated demand for agrochemicals and farm machinery, creating serious environmental damage in the process. This is part of a wider problem in industrial country agriculture. OECD estimates suggest that input suppliers capture respectively around one-third of the benefits resulting from market price support and deficiency payments, rising to one-half of those linked to input subsidies (OECD 2003, p. 28).

In the case of payments based on area, a large share of any payments is absorbed in increased land value. Since government payments contribute to farm income and the value of land is a function of future earnings expected from production and ownership, landowners capture a large portion of any transfer. Anticipated government payments explain why agricultural land value and land rent in the United States has trended upward since 1996, despite falls in commodity prices. One simulation analysis carried out by the United States Department of Agriculture (USDA) suggests that decoupled payments alone have accounted for an 8 percent increase in land asset value. Farmers retained only 40 percent of the benefit (Burfisher and Hopkins 2003). Research in the United Kingdom points to a similar inflation in land values associated with CAP payments (UK Ministry for Agriculture, Fisheries and Food 1999).

Payments that effectively accrue to landowners are likely to have negative implications for equity. They are certainly of limited benefit to tenant farmers—a group that includes a large section of the poorest households. For these farmers, higher land prices mean higher rents. About 40 percent of EU farm land is tenanted (Thurston 2002, p. 19). In the United States direct payments are determined on the basis of ownership of acres registered under farm programs. Almost 60 percent of these acres are rented, two-thirds of them by landlords outside of the farming sector (Burfisher and Hopkins 2003). This suggests not only a high degree of inequity, but also the transfer of agricultural support outside of the farm sector.

In addition to leakage, a large share of agricultural support goes directly to agribusiness interests, notably to firms involved in dairy, sugar, and oilseeds processing. The EU sugar sector vividly demonstrates the problem. In 2002, export refunds financed by taxpayers cost €1.3 billion (European Commission 2003, p. 21). These refunds bridge the gap between the (high) guaranteed prices prevailing on the domestic market and (low) international prices. They are directed not toward farmers but toward sugar processing firms allocated quotas by national governments. In most EU countries just two or three firms control the entire quota, making it one of the most highly concentrated sectors in manufacturing (Swedish Competition Authority 2002, pp. 51–2). Using national quotas to estimate transfers to individual companies, Oxfam estimates taxpayer transfers to six of the largest processors in the European Union—a group that includes Sudzucker, Beghin Say, and Tate and Lyle—at €819 million (Oxfam 2004, p. 25). Importantly, this total does not include export subsidies indirectly financed through consumer transfers.

The Impact of Northern Agricultural Policies on Poverty in Developing Countries

Small farmers and the rural poor in developing countries are largely invisible in agricultural policy debates in rich countries. Yet producer support systems in the United States and in the European Union have a direct bearing on poverty—and on prospects for poverty reduction. Working through the mechanisms of international trade, these systems affect the livelihoods of producers in developing countries by influencing relative prices and market share.

Capturing the overall effects is a hazardous exercise. Agricultural trade is just one among a broad range of factors that influence the markets in which poor people operate. Moreover, trade can generate contradictory effects. Measured in terms of short-run consumer welfare, higher producer prices can produce positive income effects for one group of households (producers of surplus) and negative effects for another (net consumers). To these complexities can be added another factor: global agricultural markets are complicated by a bewildering array of preferential systems that generate different effects in different countries.

With these caveats in mind, the impact of Northern agricultural support systems is still overwhelmingly negative. Restrictions on market access, subsidized overproduction and export dumping act to depress and destabilize markets of vital importance to smallholder farmers in developing countries. This section examines the negative linkages.

Assessing the Overall Costs of Northern Agricultural Policies

High levels of agricultural support and protection in industrialized countries affect developing countries in various ways. The immediate costs come through four principal channels:

- **Restricted demand.** Import controls drive a wedge between world prices and domestic prices. High tariffs and quotas create import substitution effects, with producers in rich countries gaining market share at the expense of producers in poor countries. They also have a bearing on the expansion of international trade. Agricultural trade represents a shrinking share of world trade. Moreover, in contrast to their experience in manufacturing, developing countries have seen their share of world agricultural exports shrink slightly over the past two decades—it is now 36 percent of the total. The growth rate in developing country agricultural exports to rich countries was 4 percent in the 1990s, or less than half the rate for manufacturing. While these exports have been increasing, this is a product of South-South trade. Import growth into industrialized countries slowed from an average of just under 5 percent in the 1980s to 2 percent in the 1990s.
- **Lower prices and price instability.** Where domestic support increases net exports, it increases supplies onto world markets, driving down international food prices. This hurts other exporters, including nonsubsidizing exporters in developing countries. Beyond this immediate price effect, agricultural support in industrial-

ized countries insulates producers from world price changes, shifting the burden of adjustment to other countries. This instability can cause fiscal and balance-of-payments problems.

- **Lost world market share.** Direct or indirect export subsidies in rich countries artificially expand those countries' share of world markets, with attendant losses for developing countries. Almost half of world agricultural trade is still accounted for by intra-industrial country exchanges.
- **Domestic market effects.** When subsidized exports from rich countries enter the food markets of poor countries they create contradictory effects. Agricultural producers suffer welfare losses as a result of lower prices, while consumers make short-term welfare gains. This has important implications for food security.

The size and distribution of the costs associated with industrialized country agricultural support have been extensively analyzed through general and partial equilibrium models.⁸ Standard practice involves simulating the effects of a given reduction in support. The results produced by such exercises are highly sensitive to assumptions. They depend on a large number of parameters whose estimated values are imprecise, not least because supply and demand elasticities under the scenarios being tested are largely unknown (Raikes 1988, p. 155). Even so, a broadly consistent picture emerges from a large number of studies.

Most simulations indicate that full agricultural liberalization by industrialized countries would expand agricultural trade, raise world prices, and redistribute market shares in favor of developing countries (Anderson, Hoekman, and Strutt 1999). The potential for liberalization to raise prices generated concerns that it could hurt food-importing countries, jeopardizing the welfare of consumers and causing balance-of-payments pressures. However, the projected price increases are modest for most basic food staples, though somewhat larger for beef, dairy produce, and sugar. In the case of wheat, rice, and coarse grains projections point to price increases of between 1 and 8 percent depending on assumptions (Valdes and Zeitz 1995; IMF 2002, p. 89; Rosegrant and Meijer 2002, p. 10). Additionally, higher prices would have the effect of stimulating investment and productivity gains in domestic agriculture, thereby neutralizing adjustment costs over the longer run.

Assessment of costs and benefits for individual developing countries depends upon a further set of assumptions about supply and demand elasticities. Most projections suggest that if rich countries were to eliminate their agricultural support systems tomorrow, incomes in poor countries would increase, both because of price and market share effects. Estimated welfare gains for developing countries range from \$8 billion in the IMF model to \$16 billion in the International Food Policy Research Institute's partial equilibrium model and \$40 billion in a general equilibrium model prepared by the same institution (IMF 2002, p. 85; Rosegrant and Meijer 2002). Most developing regions, with the notable exception of net food importers in North Africa, gain in both models, with Africa and Latin America achieving the largest gains. This results from an increase in exports and import substitution effects. The projected increase ranges from \$10 billion in sub-Saharan Africa to \$46 billion in Latin America (Diao, Diaz-Bonilla, and Robinson 2002).

Questions can be asked about the relevance of modeling for policy debates at several levels. As already noted, there is clearly a strong speculative element involved. Moreover, some models suffer from serious design flaws. The IMF simulation fails to take into account Africa's trade preferences, thereby overstating both the level of tariffs faced by African exporters and, by extension, the potential gains from tariff reductions. Other studies underestimate the potential benefits of reducing production-distorting subsidies in rich countries by focusing on the more limited interventions covered under the AMS rather than the PSE (Hoekman, Ng, and Olarreaga 2001). The high level of aggregation involved in global simulations also raises questions about the political economy of reform. Most projections point to relatively small income gains (0.6 percent of sub-Saharan African GDP and 0.1 percent of GDP for all developing countries in the IMF model) from sweeping, and arguably implausible, policy reform scenarios. Viewed through the perspective of the political economy of reform, this could be interpreted as a dubious signal to send to Northern governments.

Set against such an interpretation, econometric modeling may understate both the potential gains for poverty reduction and the costs of current policies. The understatement of gains derives from dynamic effects: new market opportunities could boost investment and create growth linkages. One study suggests that these dynamic effects would triple the static gains from liberalization by developed countries (World Bank 2002a). In addition to these broader dynamic gains there are grounds for anticipating wider benefits for the rural sector. As noted above, every additional \$1 generated in the rural economy can raise incomes by as much as \$3.

Further understatement of costs associated with Northern agricultural policies results from the aggregating effects of global models. These tell us little about the costs incurred for specific commodities and by individual countries. As might be expected, the biggest costs in absolute terms are borne by countries that compete most directly with subsidizing exporters. One simulation exercise has attempted to capture the impact of EU agricultural policies on Latin America, the region most subject to CAP-related market vagaries (Hoekman and Martin 1999, p. 958). The exercise takes into account direct effects (import restrictions) and indirect effects (including the price-depressing effects of export subsidies). The impacts are particularly large for Argentina, which suffered losses of \$2 billion in 1999, or almost 1 percent of GDP. In proportional terms, the losses were even larger for Uruguay, amounting to over 2 percent of GDP. For countries facing chronic balance-of-payments problems, these are exceptionally large losses.

Access to Northern Agricultural Markets

The agricultural sectors of industrialized countries are among the most heavily protected in the international economy. High levels of protection restrict opportunities for developing countries and limit the overall expansion of agricultural trade.

Agricultural trade has lagged significantly behind trade in manufactured products. Although it increased in absolute terms during the 1990s, its share in total trade

almost halved, to 10 percent in 2000. This trend shows no sign of changing: agricultural trade expanded in the second half of the 1990s at less than one-third of the rate for trade in manufactured goods. Northern domination is another unchanging feature of the world agricultural trading system. Industrialized countries account for about three-quarters of both global exports and imports of agricultural products (OECD 2000a). These shares have remained virtually constant over the past decade. Today, developing countries account for roughly the same share of agricultural exports as they did in 1980. The upshot is that the world's poorest countries are more reliant than rich ones on the slowest-growing sector of world trade—and they have been unable to expand their share of a slow-growing market.

Agricultural support policies in rich countries reinforce the agricultural trade trap. High tariffs, quotas, and other instruments associated with these policies severely restrict market opportunities for exporters in developing countries. The sheer complexity of import barriers makes it impossible to obtain a single unit for measuring the scale of import protection. Simple ad valorem duties are supplemented by specific duties in the form of fixed amounts payable on weight or volume, different rates are applied for in-quota and out-of-quota imports, and seasonal marketing requirements produce further complications. In addition, most industrialized countries operate preference systems. These result in differences between Most Favored Nation (MFN) duties and those applicable to other more preferred suppliers, for instance under the U.S. Generalized System of Preferences (GSP) and the European Union's Cotonou Agreement with African, Caribbean and Pacific (ACP) states.

With these various provisos in mind, it is still clear that agricultural tariffs far exceed average tariffs in most industrialized countries—and by some distance. Average post-Uruguay Round MFN rates understate real tariff levels. These are reported as 19 percent and 9 percent for the European Union and the United States respectively. Factoring in ad valorem tariffs, the World Bank estimates average applied tariffs on agricultural goods at 22 percent for the European Union and 14 percent for the United States (Hoekman, Ng, and Olarreaga 2001). This is some three to four times higher than tariffs on manufactured goods. Preferential trade arrangements lower applied tariff rates, especially in the European Union.⁹ However, preferences are more circumscribed in agriculture than any other sector (see box 1). Average tariffs also conceal high rates of dispersion and tariff peaks (defined as a level in excess of 15 percent). In the European Union and Japan, over 40 percent of agricultural tariff lines covered under the Uruguay Round AoA fall into the tariff peak category. Average tariff or tariff equivalents on these lines are 28 percent and 50 percent respectively (Stevens and Kennan 2003, p. 11). These averages conceal far higher levels of protection in some sectors. Many individual product peaks are exceptionally high. Maximum tariffs on fruit and nuts in the United States exceed 200 percent, and on meat in the European Union 300 percent (Hoekman, Ng, and Olarreaga 2001).

Tariff escalation, or duties that rise with each step of processing, is especially pronounced in agriculture. In the European Union, fully processed food products face tariffs almost twice as high on average as tariffs on products in the first stage of processing (World Bank 2002a, p. 70; OECD 2001b, table 2.4). In the United States,

Box 1. Rich Country Preferences: A Mixed Blessing

It is sometimes claimed that agricultural protection does not bear heavily on developing countries, either because they do not produce temperate goods or because of preferences. The European Union in particular likes to argue that a high proportion of its agricultural imports from the poorest countries enter duty free because of arrangements under the Cotonou Agreement with African, Caribbean and Pacific (ACP) states, and the Everything But Arms initiative (Fischler and Lamy 2003). Reality is more prosaic. Although preferences do mitigate the effects of agricultural protectionism, product coverage is highly selective and governed by an arguably perverse rule: the most-limited benefits are reserved for countries with the greatest capacity to export.

Agricultural trade relations between the European Union and countries in Mercosur—Brazil, Uruguay, and Argentina—illustrate the point (Bouët 2003). In Mercosur, average customs duties on agricultural imports are around 12 percent, compared with an average of 18 percent under the European Union's GSP system. The level of preference over Most Favored Nation rates averages 1 percent. Typical tariff peaks in Mercosur are also much lower than in the European Union. Tariff peaks under the GSP are exceptionally high in products such as meat (69 percent), dairy produce (57 percent), edible fruit (20 percent), processed vegetables (15 percent), and cereals (72 percent) where Mercosur countries have a strong competitive advantage.

Preferential margins are wider for Latin American countries under the GSP than for the European Union, but a limited number of countries—29 in total—are beneficiaries in agriculture. High tariff peaks in the United States help to explain imbalances in tariff levels with some of the country's major trading partners. The average tariff or tariff equivalent levied by the United States on Brazil's 20 most important export products is three times higher than the Brazilian equivalent for the United States (Government of Brazil 2002).

Poorer developing countries enjoy bigger preference margins, but there are distinct limits to Northern generosity. For example, the Everything But Arms (EBA) initiative granted duty free access into the European Union for all products from the least-developed countries (LDC). This was an important initiative, even though most LDC imports already entered the EU market on a duty-free basis.¹⁰ What was new about the EBA was the extension of duty-free access to agricultural goods covered by the CAP (Stevens and Kennan 2001a). Liberalization was to be immediate, but not in all cases. Following intensive lobbying from producer groups and agribusiness interests, duty-free tariff quotas were introduced for sugar and rice. These are to be gradually increased until 2009, when tariffs will be lowered to zero. Countries with the capacity to increase exports of sugar—such as Malawi, Zambia, and Mozambique—lost export opportunities as a result. Over 85 percent of the value of exports from the LDCs in new product lines covered by the EBA to the European Union in

2001 were in sectors subject to delayed liberalization tariffs (Brenton 2003). Of the 313 items covered by the Cotonou Agreement, almost 200 face tariffs above peak levels. Sub-Saharan Africa is also a significant exporter of products facing tariff peaks in the United States and Japan, including meat, tea, sugar, cotton, and fruits and vegetables.

It should be emphasized that the problems outlined above relate to the structure and design of preferences. Multilateral liberalization and preference erosion create their own problems. For example, sub-Saharan Africa exporters enjoying large preferential tariff margins in the European Union stand to lose as those margins are eroded. Holders of quotas for access to the EU market stand to lose even more, as highlighted by ACP and LDC concerns over the future of the European Union's Sugar Protocol. Against this backdrop, it is important that any weakening of preferences through WTO agreements should be cushioned through an adequate transition period, compensation, and increased aid to address supply-side constraint problems.

Latin American exporters of processed tomato sauces face tariffs that are five times higher than those levied on fresh tomatoes (Stern 2002, p.33). Such practices undermine the efforts of developing countries to benefit from trade, notably by creating barriers to entry in higher value-added markets. Escalating tariffs create disincentives for investment in local processing, in effect transferring value-added and employment creation from poor to rich countries. They help confine developing countries to low value-added and slow-growing sectors of agricultural trade. Although Northern tariffs cannot be considered in isolation from supply-side constraints operating in developing countries, they do help to explain why rich countries have been able to expand the share of processed agricultural products in their overall agricultural exports more rapidly than developing countries. For the least-developed countries (LDCs), the share has declined, from 27 percent to 17 percent (OECD 2000a).

The potential benefits of preferential trade arrangements are further eroded by other factors. Complex rules of origin define the conditions to be satisfied for a product to be deemed as originating in the country seeking preferential access. The stated purpose is to restrict trade diversion. However, the sheer complexity of the rules, allied to limitations on value-added through the use of imported goods, can serve as formidable barriers to entry. Only around half of the imports from LDCs eligible for preferential access to the European Union actually request preferential access.

Phytosanitary rules impose another layer of constraints. In many cases, stringent health regulations on imported products are a legitimate response to consumer health concerns. That said, there is ample evidence to suggest that phytosanitary rules can serve as convenient protectionist purpose. The European Union's discovery of a phytosanitary risk associated with citrus black spot on fruit exported from South Africa

is a recent illustration. The spot is a benign lesion appearing on fruit grown in the Eastern Cape and Limpopo—and has done since fruit exports to Europe started in 1925. No infection of European orchards has ever been reported. But the European Union now operates a zero tolerance policy, impounding entire consignments if a single blemished fruit is found.

From Global to Local: The Costs of Northern Dumping for Small Farmers

Unfair competition in global and local markets compounds the damage caused to small farmers in developing countries by exclusions from Northern markets. That competition derives from the use of production subsidies to generate large export surpluses, and the associated use of direct and indirect export subsidies to dump those surpluses overseas. EU and U.S. agricultural trade policies frequently undermine the benefits associated with development assistance.

Cotton provides a particularly stark illustration (see case study 1 in the annex). The United States is the world's largest exporter of cotton, and also the world's heaviest subsidizer of cotton production. In 2001 cotton farmers in the United States were provided with government support amounting to \$3.4 billion, receiving more per capita than any other sector.

Farmers in Africa and other parts of the developing world are adversely affected. Subsidies in the United States cotton belt translate into lower world prices and smaller world market shares. West Africa, a region in which 10–11 million people depend on cotton cultivation as a major source of income, sustained an estimated \$190 million in lost export earnings in 2001 as a direct result of U.S. subsidies (Oxfam 2002c). In many countries, losses from unfair cotton trade have outweighed gains from development assistance. Mali lost more from falling cotton prices than it received in U.S. aid; Burkina Faso lost more than it was given in debt relief under the Heavily Indebted Poor Countries (HIPC) Initiative. The price-depressing effects of U.S. cotton subsidies translate directly into income losses at a household level, with attendant implications for poverty. In Benin, lower world prices associated directly with U.S. cotton subsidies are associated with a 4 percent increase in the national incidence of poverty (Minot and Daniels 2002).

Industrialized countries have in some cases partially offset the negative effects of agricultural support through preferential access schemes. For example, the European Union allows preferential access to its sugar market for 17 African, Caribbean, and Pacific (ACP) countries. Under this arrangement, the ACP countries receive EU guaranteed prices rather than prices prevailing on world markets. The European Union frequently cites the preferential sugar regime as an example of a poverty-focused preference system.

Such claims are difficult to square with reality, for two reasons. First, the vast majority of quota rents accrue to higher-income ACP states. Although these rents have played an important role in the economic development of at least one ACP country—Mauritius—and provided a stable source of foreign exchange for others, the distribution of benefits is clearly not poverty-focused. Least-developed coun-

tries with the highest levels of poverty gain far less than countries at higher average income levels. This is a reflection of the origins of the sugar regime: it was conceived as a post-colonial arrangement for securing sugar supplies, and not as a means of bestowing largesse on the world's poor (McDonald 1996). The second problem is that a large group of developing countries lose out as a result of the support that underpins the EU sugar regime. High guaranteed prices in Europe give rise to large export surpluses, which drive down world prices and push nonsubsidizing exporters out of third markets, imposing significant foreign exchange costs. Meanwhile, high tariffs in Europe restrict entry to the EU market (see case study 2 in the annex).

In the dairy sector, the European Union supports export subsidization on a large scale without the mitigating effects of trade preferences. According to the OECD, EU support to the dairy sector, measured in PSE terms, amounts to €16 billion a year—a sum that represents 40 percent of the value of production. This translates into the equivalent of \$2 per cow per day to subsidize the dairy sector (Oxfam 2002d, p. 2). Half the world's population live on less than this amount. Of more immediate relevance to dairy farmers competing against EU produce are the export restitutions used to finance the transfer of EU surpluses to world markets. Around half of the CAP budget support—\$1.5 to 2 billion a year—is earmarked for this purpose. This support enables milk processors to compete in overseas markets on far more advantageous price terms than would otherwise be the case. For the rest of the world, European production and export subsidies matter for a simple reason: EU surpluses represent about one-quarter of global trade in skimmed-milk powder.

Dairy farmers in developing countries have faced serious problems from subsidized competition in local markets. For example, in 1992 Jamaica reduced import tariffs on milk powder from the European Union. This was promptly followed by a surge in EU imports. Between 1992 and 2000, the volume of milk solids imported increased from 1,200 metric tons to 6,300 metric tons, with the European Union accounting for two-thirds of total imports in 2000. Local manufacturers have shifted demand away from local supplies of fresh milk, in particular cutting back on purchases from small farms in rural areas. Investment in the local infrastructure for collecting, processing, and selling milk and linking small farmers to urban markets appears to have broken down. Although there may have been some short-term gains in consumer welfare as a result of cheaper supplies, cheap subsidized milk powder has severely compromised the livelihoods of farmers in a potentially viable local industry, weakening economic linkages between the rural and urban sectors (CAFOD 2002, pp. 8–9; NOVIB 2001). Similar problems have been reported in the Dominican Republic and East Africa (Oxfam 2002d).

Implications for Food Security

For countries—and for households—that are net importers of food products, standard consumer welfare models register lower food prices as a positive gain. The problem with these models is that they fail to capture some of the more complex food security problems associated with Northern policies that artificially depress import prices.

As noted earlier, presumed benefits in developing countries constitute weak grounds for defending Northern agricultural support. Even full liberalization would generate modest price inflation effects. On the other hand, subsidized exports can cause serious problems. They distort competition, destabilize prices, and expose countries that liberalize imports to the threat of sudden import surges, with potentially adverse consequences for balance-of-payments stability and local markets. Moreover, while low food prices might bring benefits for poor consumers, they are less advantageous for small farmers seeking to earn income from sales of food surpluses. As the primary producers of food staples, women farmers stand to bear a disproportionately greater loss from lower prices. There are also wider costs that have to be considered.

Subsidized exports from rich countries may reinforce a tendency to supply urban centers from world markets rather than from domestic rural areas. This in turn is likely to undermine prospects for rural growth and weaken the farm and nonfarm linkages vital for poverty reduction.

Subsidized exports from industrialized countries can create serious problems for small farmers in developing countries, destabilizing local markets by flooding them with products sold at prices that bear no relationship to the costs of production. Control over tariff policy is an essential requirement for dealing with these problems.

Evidence from India is instructive (Gulati and Narayan 2002). Cost of production analysis indicates that India is a competitive producer of wheat and dairy produce. However, import liberalization has created problems in both sectors. In 1997 tariffs on wheat imports were lowered in the face of pressure from domestic millers. This coincided with a sharp decline in world prices. The resulting surge in imports forced the government to raise tariffs from 0 percent to 50 percent. Imports of milk powders also increased, again prompting the restoration of higher tariffs and the introduction of import quotas. In both cases, import prices reflected the distortions associated with heavy subsidization by exporters, notably the United States (for wheat) and the European Union (for dairy products). To put these distortions in context, the PSE for EU dairy farmers at the end of the 1990s was \$17 billion, equivalent to 44 percent of the value of production. Wheat farmers in the United States were receiving support estimated at \$5 billion, or just under half of the value of production (OECD 2002a). It is difficult to see an obvious market rationale to justify forcing Indian farmers to compete against such heavily subsidized competition.

Rapid import liberalization under current market conditions can severely damage the interests of highly vulnerable small farmers. In 1995, Haiti cut import tariffs on rice from 50 percent to 3 percent almost overnight. Trade liberalization led to a rapid increase in imports from the United States, lowering domestic producer prices by around 25 percent. Domestic production fell from 180,000 tons in 1986–9 to 105,000 tons in 1997–9. From a position of near self-sufficiency in the mid-1990s, by the end of the decade imports accounted for two-thirds of local production (IMF 1998, p. 45; IMF 2000). Competitiveness in this case was a function of relative subsidization. Government support to the rice sector in the United States represented 40 percent of the value of output at the end of the 1990s (OECD 2002a, p. 224). The World Bank (2002a, p. 43) continues to defend the decision to liberalize imports on

the grounds that it lowered prices for the urban poor and generated efficiency gains. However, the external shock delivered to resource-poor rice farmers by the dramatic change in price pushed many to destitution, with damaging consequences for rural poverty (Oxfam 2002a, pp. 141–2).

The distributional consequences of import liberalization depend on what the poor produce—and on whether the losses they sustain in one area are compensated by gains elsewhere. Clearly, outcomes will reflect country-specific circumstances. But liberalization designed without reference to basic poverty consideration poses acute dangers to small farmers, even in middle-income countries.

The experience of Mexico under the North American Free Trade Agreement (NAFTA) demonstrates how import liberalization can produce distributional outcomes that are bad for poverty reduction. Regional trade liberalization has opened up markets in fruits and vegetables, generating a multibillion-dollar export boom. However, the boom has been concentrated on large-scale, irrigated commercial farms in areas of the North Pacific coast and the valleys of El Bajío. The maize sector has experienced very different trends, with imports from the United States growing rapidly. In volume terms, imports in 2001 were three times the average level for 1990–3 and equivalent to one-third of domestic production (USDA 2002). Maize is the crop produced on around 60 percent of rain-fed land by 2.4 million small farmers. Thus liberalization under NAFTA may have benefited large-scale commercial agriculture while creating severe adjustment pressures for low-income farmers in the maize sector (Appendini 1994, pp. 59–78).

Policy makers in the United States frequently point to NAFTA as a free market model for wider application. They rationalize this model by reference to familiar trade arguments rooted in their theory of comparative advantage. Consider the following observation from a USDA report: “The outlook for US grain exports to Mexico is ripe with promise, because that country’s demand for wheat and feed grains continues to outstrip its production capacity. At the same time, Mexico’s policy makers are moving away from the concept of self-sufficiency and embracing greater market orientation” (USDA 1998). But what does *market orientation* mean in this context? In 2001, U.S. maize growers received \$6.2 billion in direct payments under various government support programs (USDA 2002, p. 65). The OECD estimates total support for the same year at around one-third of the value of output. To put these numbers in a context relevant to Mexico–United States agricultural trade relations, direct payments to America’s maize farmers for 2001 were some five times the *total* Mexican government budget for agriculture.¹¹

An important question in any debate on food security relates to the sustainability of food supply, including that delivered through imports. Sub-Saharan Africa faces especially acute problems in this area. There are currently 19 countries in the region where food imports account for more than one-quarter of export earnings. In addition to commercial imports, sub-Saharan Africa is also heavily dependent on food aid, which accounts for around half of total imports by volume (Stevens and Kennan 2001b, p. 178). This is a source of danger. High levels of external debt, the stagnation of aid, uncertainties surrounding future world prices, and rapid population growth point to a precarious future.

Increased food self-sufficiency is clearly not a sufficient condition for enhanced food security. India and Brazil combine self-sufficiency in food with high levels of malnutrition. Even so, there are strong grounds for suggesting that increased self-sufficiency might be a necessary condition in Sub-Saharan Africa. Those grounds extend beyond balance-of-payments considerations. There is a pressing need to connect rural Africa to urban markets in order to generate dynamic growth linkages (Kydd et al. 2002, p. 16). The central role of women farmers in food staple production suggests that gender equity goals may also be served by an increased emphasis in this area. More generally, poverty reduction strategies need to place far more emphasis on developing the productive capacity of smallholder farmers. As Pinstrip-Anderson (2002) has written:

Sub-Saharan Africa in particular is unlikely to have the capacity to commercially import the difference between food needs and production. The central challenge in the next 20 years is to . . . increase the capacity of poorer countries to produce food, not only to increase their food supply, but to generate personal income and employment.

National policies and international cooperation, rather than industrialized country agricultural reform, will be the primary factors deciding whether this challenge is met. But current practices in Northern agriculture do not help. Small farmers in Africa, as in other developing regions, are highly innovative and efficient given the state of their infrastructure and the wider constraints. However, they are not well equipped to compete against large-scale industrialized country producers backed by massive government subsidies. By artificially depressing the price of food imports, such producers shift relative prices against local producers, create disincentives for investment in food staple production, and systematically weaken rural-urban linkages. Chronic dependence on food imports in parts of West Africa can be traced to these effects (Andrae and Beckman 1985). Looking to the future, continued export dumping by rich countries will make it easier for African governments to continue their neglect of smallholder farmers and the rural infrastructure.

Changing Patterns of Agricultural Support: From the Uruguay Round to the Doha Development Round

Multilateral trade rules can have important implications for competition between producers in rich countries and poor countries. The AoA, adopted at the end of the Uruguay Round, began the process of extending WTO rules to agriculture. It established disciplines in three areas that have a direct bearing on prices and market shares: tariffs, domestic support, and export subsidies. Unfortunately, the agreement was crafted primarily to accommodate the interests of the European Union and the United States, rather than to address the concerns of developing countries.

In this section we show how the AoA blurred the distinction between different forms of subsidies, institutionalizing an increasingly artificial distinction between trade-distorting and non-distorting, or decoupled, support. The distinction is artificial because decoupled payments often include both a production and an export-subsidizing component. Although some aspects of the distinction remain valid in

principle, in practice it has enabled rich countries to continue on a business-as-usual basis. Multilateral trade rules have remained an ineffective device for addressing the problems faced by developing countries outlined in the previous section.

The Uruguay Round Agreement on Agriculture (AoA)

The Uruguay Round AoA has been extensively analyzed (Hathaway and Ingco 1996; Konandreas 2002; OECD 2001a). Built on a bilateral accord—the Blair House Agreement—negotiated in advance by the United States and the European Union, it extended WTO rules to agriculture in the following key areas:

- **Domestic support.** Financial support, *other than for measures agreed to be exempt*, was to be cut by 20 percent. The amount to be reduced was termed the *aggregate measure of support* (AMS).
- **Export subsidies.** Taking 1986–90 as a base period, the value of export subsidies was to be reduced by 36 percent and the volume by 21 percent. The use of export credits and food aids to facilitate subsidized commercial exports was subject to weaker, voluntary disciplines.
- **Market access.** All tariffs and nontariff barriers were to be turned into tariff equivalents, “bound,” and reduced by an average of 36 percent (and a minimum of 15 percent).

The importance of the provisos attached to domestic support reductions was not fully appreciated at the time, especially by developing countries. Three main categories of exemptions were allowed, all of them originating in the Blair House Agreement. These were as follows:

- **Green Box payments.** Deemed to be minimally trade-distorting, these include “decoupled” payments not related to production, world or domestic market prices, and the provision of inputs, along with a wide range of measures—such as safety nets, insurance provision, infrastructure spending—provided as general services to agriculture.
- **Blue Box payments.** These had to comply with two basic conditions: (1) the formula for calculating payments had to be based on fixed areas and yields, and (2) payments were made on the basis of 85 percent or less of the base level of production. This corresponded to the existing U.S. system, which was extended to the European Union under the 1992 CAP reforms. Blue Box payments corresponding to the production limiting requirements set out in the AoA (Article 6.5) are included in the calculation of the AMS, but exempt from reduction commitments.
- **De minimis exemptions.** Under this rule WTO members are not required to reduce product-specific support amounting to less than 5 percent of the total value of production of that commodity. Similarly, non-product-specific support not exceeding 5 percent of the total value of production is exempt. The corresponding value of production figure for developing countries is 10 percent. *De minimis* payments are not included in the calculation of current AMS, even though they may be trade distorting.

By any standards, the AoA was an act of considerable generosity to the European Union and the United States. Under the AMS reduction commitments, Europe retained the right to provide AMS support up to €69 billion and the United States \$19.8 billion. In the case of the European Union, Blue Box payments exempted from reduction commitments and Green Box payments exempted from the AMS were almost equivalent to Amber Box payments. The European Union accounted for over 90 percent of OECD Blue Box payments in 1997. In the case of the United States, 1996 farm legislation shifted the locus of support away from programs incorporating supply control elements and toward direct payment systems classified as Green Box. By 1998, the United States accounted for around half of OECD Green Box support, with overall support levels under this category of \$51 billion (OECD 2001a, annex table 11.2).

The economic rationale for decoupling is well established, as is the economic theory. As applied to financial transfers, decoupling describes the replacements of output-related measures—such as production subsidies—by lump-sum payments based on historic criteria without any requirements relating to current resource use. The theory is that such a move can prove to be Pareto improving by lowering costs to taxpayers and consumers, but without reducing producer welfare. However, decoupling as developed in the WTO vision owed less to economic theory than to politics. Partially decoupled support was introduced in the United States with the 1985 Food Security Act (which froze the yields on which payments were based) and the 1992 reform of the CAP.

The *de minimis* system provided another inbuilt weighting factor in favor of the European Union and the United States. While the 10 percent ceiling for developing countries appears to offer real special and differential treatment advantages, these have been circumscribed by some obvious factors. In many developing countries the value of agricultural production is large in relation to national income, while revenue-raising capacity is limited by poverty. The upshot is that most countries, especially the poorest, lack the budget capacity to take advantage of the *de minimis* provision. By contrast, EU and U.S. budgets are large relative to the value of agricultural production, creating scope for expenditure not subject to WTO constraints. In 2002, the United States was able to claim a *de minimis* entitlement of \$9 billion (WTO 2003c, p. 16).¹² To put the figure in context, it was some five times the total Mexican agricultural budget. The European Union's *de minimis* level, based on the value of production, is around €12 billion. These provisions create scope for expenditures on agricultural support that dwarf the resources available to developing countries for whom agriculture is far more important, both in terms of its weight in national income and as a source of employment.

Wider problems in the AoA have been extensively discussed elsewhere. The reference years (1986–8) chosen for measuring the AMS were marked by low prices and, by extension, high levels of export subsidization. In effect, this inflated the benchmark against which cuts in income support, tariffs, and export subsidies would be measured. In the case of export subsidies, a rollover provision initially allowed countries to carry forward unused subsidy allowances (OECD 2002a). This meant that export subsidy rights could be accumulated during periods of high prices (though the provision has not been used since 2001). Additionally, there was no upper limit

on the unit export subsidy that could be applied, so that the value and volume constraints did not apply simultaneously. This allowed for huge disparities in the rate of subsidization between commodities and over time. In the case of domestic subsidies, AMS reduction commitments were aggregated across all commodities, thereby making it possible to reduce commitments in some areas while raising them in others.

Market access disciplines were similarly riddled with loopholes. Protection actually increased for some commodities as the bound rates agreed for the 1986–8 base period afforded higher protection than applied rates in the pre-base period (Tangermann 2001). Special safeguard (SSG) provisions also allowed developed countries to impose additional tariffs for over 6,000 tariff lines in the event of an import surge or a fall in import price below a specified reference level (Tangermann 1998). The SSG is far easier to invoke than other safeguard provisions because it is not necessary to prove injury to domestic producers. Few developing countries are entitled to use the special safeguards measure.¹³

These various provisions amounted to major concessions for industrialized countries, effectively securing them the right to continue providing large, trade-distorting agricultural support measures. No comparable concessions were made to developing countries. Indeed, the round was marked by a concerted effort to erode the principle of special and differential treatment for poor countries.

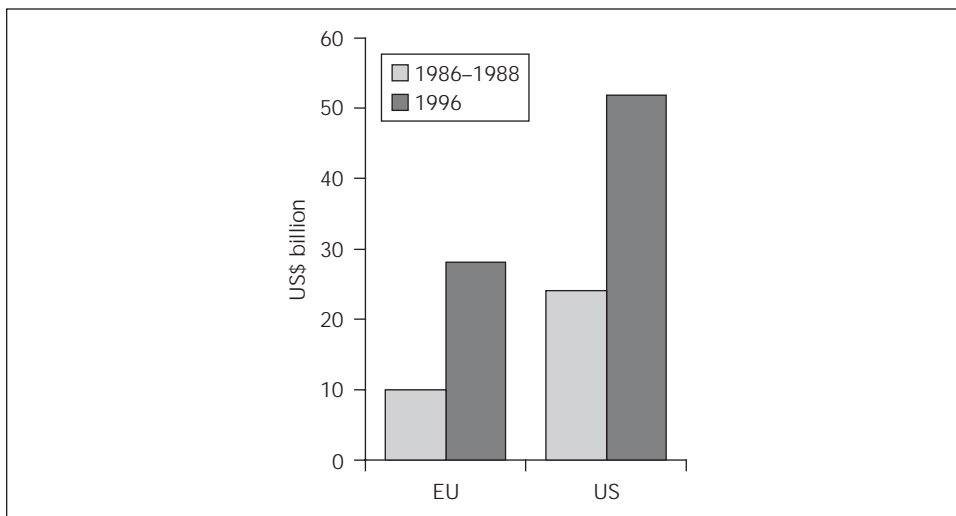
Green Boxes, Blue Boxes, and the Restructuring of Farm Support

The European Union and the United States have taken full advantage of the loopholes built into the AoA. Both have shifted support into areas that are either not counted in the calculation of the AMS or not subject to reduction commitments. In important respects, WTO agreements have been tailored to accommodate EU and U.S. reforms and to limit adjustment pressures. Indeed, it might be argued that in the case of agriculture the WTO has been used to enshrine a bilateral private agreement between the institution's most powerful members in a multilateral arrangement—a state of affairs that raises fundamental questions about the WTO's legitimacy.

One of the most visible indicators of restructuring is provided by the surge in Green Box payments, especially in the United States (figure 10). Prior to 1996, the United States linked direct payments to production programs requiring farmers to set aside a specified acreage, thereby placing associated subsidies in the Blue Box. From 1996, the set-aside and production requirements were removed, enabling the United States to relocate subsidies to the Green Box. The transition reflected major adjustments in the system of farm support (see Orden 2003 for a comprehensive account). Briefly summarized, the 1996 Federal Agriculture and Improvement Reform (FAIR) Act lowered guaranteed prices, or loan rates,¹⁴ removed the target price, and initiated a system of annual payments that farmers would receive over the lifetime of the legislation. Known as *production flexibility contract payments*, these were fixed in advance on the basis of production and yield in a given reference period. For WTO purposes, these direct payments were classified as decoupled on the grounds that they were not dependent on current production.

FIGURE 10.

Green Box Expenditure: The European Union and the United States
1986/88–1996 (US\$ billion)



Source: OECD 2001.

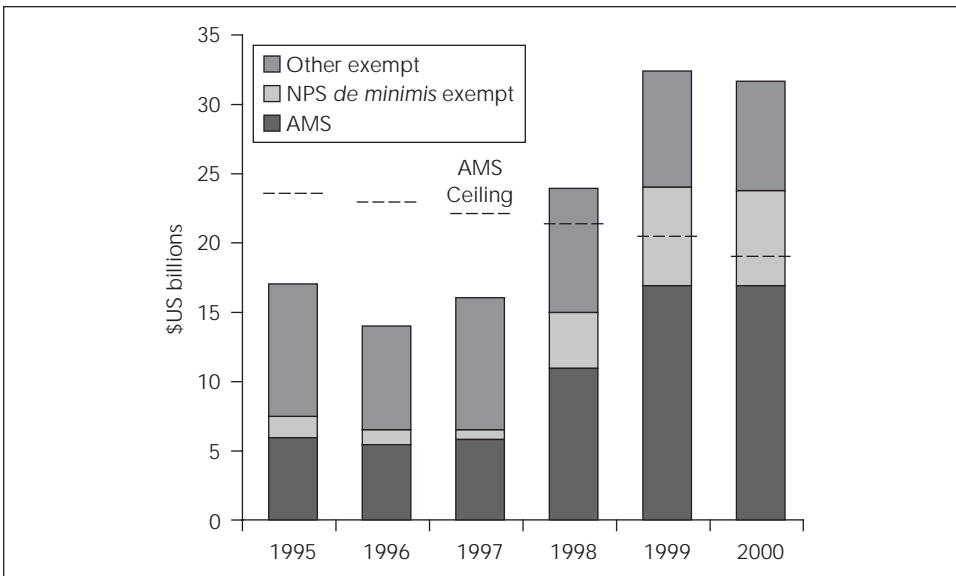
Shortly after the FAIR legislation was enacted, crop prices began to fall sharply. Congress promptly responded with “emergency” legislation that produced the Market Loss Assistance (MLA) program. Between 1998 and 2001, MLA payments totaled around \$27 billion. In 2000, these payments accounted for over one-third of overall government payments to agriculture—and more than transfers linked by guaranteed prices support (ERS 2000). Overall, payments based on output were some five times higher for the last two years of the 1996 Farm Act as for the first two, primarily reflecting low commodity prices. These emergency payments were classified by the U.S. Department of Agriculture as “Amber Box” AMS transfers, and exemption was (somewhat dubiously) claimed under the *de minimis* provisions of the AoA. Payments based on historical entitlements and area also increased as market prices fell below the loan rate, prompting the government to extend loan deficiency payments.

It is not clear that payments under the FAIR Act were less trade-distorting than previous payments. However, the terms of the AoA made it possible for the United States both to sustain a massive increase in farm support in the second half of the 1990s *and* stay within the parameters of the AMS ceiling set under the Uruguay Round agreement. Figure 11 demonstrates this effect.

At one level, the 2002 Farm Security and Rural Investment (FSRI) Act, which governs legislation through to 2007, continued the previous direction of reform (Westcott, Young, and Price 2002; Orden 2003). It includes three elements:

- **Market price support.** Provided through the loan rate system, this is deemed Amber Box for WTO purposes.

FIGURE 11.
U.S. Direct Support by WTO Category



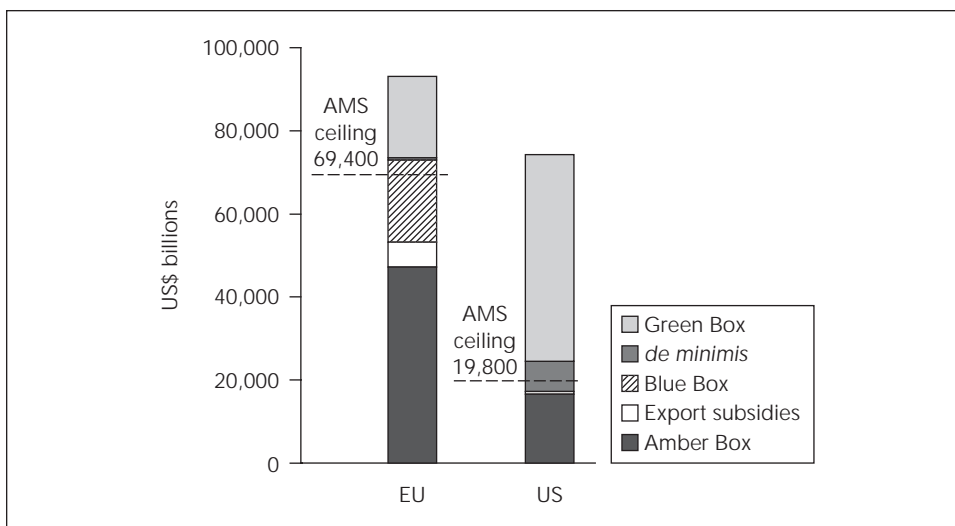
Source: Sumner 2002.

- **Direct payments.** Arrangements are broadly similar to the FAIR system of payments: rates are fixed for each crop based on historical acreage and yields, and not tied to production. These are deemed Green Box by the WTO.
- **Countercyclical payments.** The ad hoc emergency payments introduced under FAIR have been institutionalized in a new program of countercyclical payments. These are triggered when the market price for a commodity is lower than the level necessary to meet a specified level of producer income, or target price. Payments are countercyclical in the sense that they are related to world prices.

Both direct fixed payments and countercyclical payments are made on 85 percent of base acreage. However, the 2002 FSRI also introduced new measures and institutionalized trends already in place under FAIR. It increased loan rates, introduced new crops into the loan rate scheme, and allowed updating of the base acres and payment yields for calculating direct payments—thereby contravening the first principle of decoupling (De Gorter 2003). In addition, the 2002 legislation institutionalized what had been treated as emergency payments into a new countercyclical payments scheme, with transfers triggered by changes in price (rather than quantity produced, as had been the case).

The trajectory of EU farm policy reform has broadly followed that of the United States. Deep cuts have been introduced in guaranteed price levels for arable crops, with producers partially compensated through direct payments from the budget (Thurston 2002). These payments have been exempted from most WTO cuts under the Blue Box arrangements. Further price reductions were envisaged under

FIGURE 12A.
Patterns of Support in EU and U.S. Agriculture

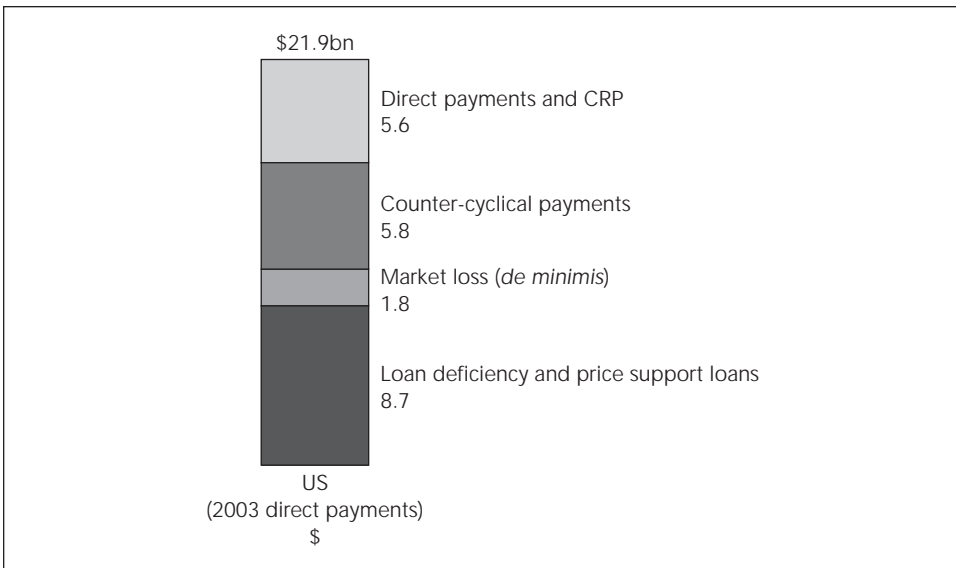


Source: WTO.

the Agenda 2000 reforms. The European Commission was seeking to move to a U.S.-style decoupled payments system of the type enshrined in the FAIR legislation (Buckwell 2002). In the event, the CAP reform agreement adopted in June 2003 introduced partial decoupling (75 percent of the value of transfers for cereals and 50 percent for dairy and sheep). Decoupled single-farm payments would be based on average payments claimed over the period 2000–2. Modest reductions in payments would be phased in, along with cuts in support prices. However, the overall CAP budget would increase slightly in real terms.

The categorization of payments associated with EU and U.S. agricultural policy reform has important political ramifications. These can be partially illustrated retrospectively. Figure 12a provides a breakdown of the structure of EU and U.S. support at the end of the 1990s. It shows that both camps were operating well within the limits of their AMS ceilings. For the European Union, combined Amber Box and export subsidy support represented 76 percent of the ceiling, rising to 84 percent for the United States. Clearly, the flexibility provided by the Green Box, Blue Box, and *de minimis* provisions allowed policy makers considerable room for maneuver. For the United States at least, the 2002 farm legislation may have changed this picture. Figure 12b provides a breakdown of direct payments in agriculture for 2003, based on Commodity Credit Corporation data. Overall payments amounted to just under \$22 billion, which exceeds the AMS ceiling. Classification of the component parts of these payments remains uncertain, not least in the light of the WTO panel ruling in the dispute between the United States and Brazil over cotton. On one interpretation of that ruling, both direct payments and countercyclical payments could now be categorized as Amber Box. If this is the case, U.S. policy makers may find themselves in breach of their WTO obligations.

FIGURE 12B.
U.S. Direct Payments to Agriculture (2003)



Source: USDA, Commodity Credit Corporation.

Decoupled Export Dumping

In theory, the AoA introduced stronger disciplines relating to export subsidies than for any other area of agricultural policy. Outcomes have been very different from those anticipated. Decoupled payments have been directed toward sectors in persistent surplus, effectively supporting production for exports. The upshot: hidden export subsidies have been replacing direct export subsidies. European and American farmers continue to sell products abroad that would otherwise not be able to compete.

Part of the confusion surrounding export subsidies derives from definitional problems. For WTO purposes, an *agricultural export subsidy* is a payment that bridges the gap between (high) domestic prices and (lower) world prices. On this definition, export subsidies do not feature prominently in U.S. farm support programs, with only \$80 million in payments reported to the WTO in 1999. In the same year, the European Union accounts for over 90 percent of export subsidies reported to the WTO, or some \$6 billion. Reform of the CAP has reduced the dependence of the CAP on export subsidies. While the unreformed dairy and sugar sectors continue to depend heavily on direct export subsidies, cereals are now exported without formal export subsidies. The overall export restitution component of the CAP budget fell from around one-fifth at the end of the Uruguay Round to only 14 percent in 2001 (European Commission 2001; European Research Office 2001). As in the United States, this reflects a move toward the alignment of domestic guaranteed prices with world prices, and the transfer of farm income support to direct payment systems.

Measured against the yardstick of current WTO rules, export subsidies are in steep decline. The problem is that the criterion used to measure export subsidies is increasingly out of step with EU and U.S. policies. Large financial transfers directed toward sectors in structural surplus clearly include an export subsidy component. To the extent that this component is covered by Amber Box or Blue Box provisions it does register as a subsidy, albeit as a domestic support rather than as an export subsidy (to which more stringent disciplines are attached). Direct payments categorized as Green Box, even when directed toward sectors in surplus, do not register at all.

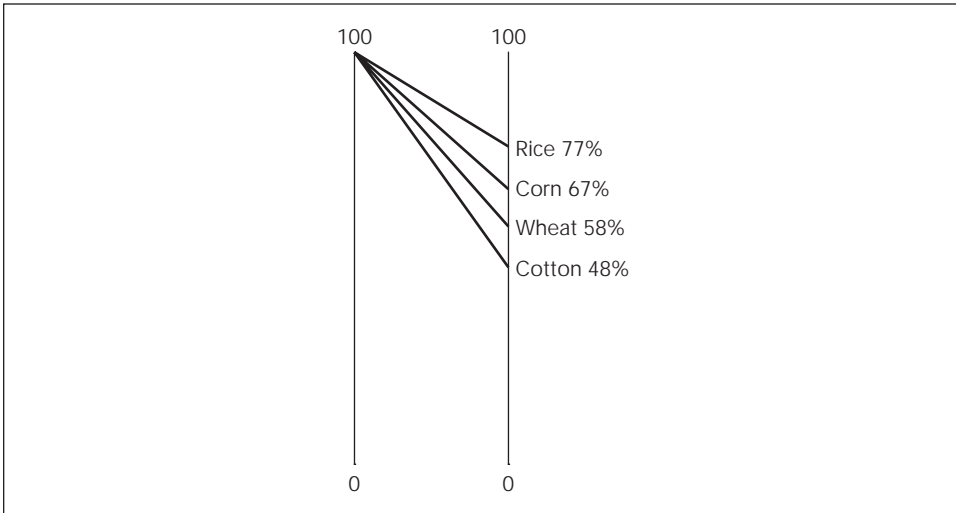
The sheer complexity and diversity of agricultural support systems makes it difficult to derive export subsidy equivalent effects. An alternative approach, still operating within the parameters of WTO rules, can be developed by reference to anti-dumping provisions. Measuring dumping is a difficult—and politically sensitive—exercise. Under the WTO, dumping is said to occur if the sale of goods in export markets takes place at a price below their normal value (Hoekman and Kostecki 2001, pp. 316–8). *Normal value* in this context is usually defined by reference to price charged by a firm in the domestic market. For example, if a firm from the Republic of Korea sells a car to America at a price lower than it charges at home, this would constitute grounds for an anti-dumping action by rival producers in the United States. In cases where markets are too distorted to assess the normal price, a reasonable estimate for costs of production and profit can be used—the so-called constructed value approach. This involves estimating costs of production and export, including transport and handling costs, and comparing the total with the export price.

In some respects, Northern agriculture provides a useful model for developing a constructed value approach. Northern governments are able to abuse this approach in relation to developing countries, not least because reliable cost-of-production data are seldom readily available. The same problem does not apply to industrial country agriculture, where government agencies systematically compile such data. In other words, Northern governments themselves provide the evidence for production costs. One simple way of assessing dumping levels is to adopt the simple expedient of comparing these costs with export prices.

Applying this measure to the United States points to a large gap between cost of production and export prices. The USDA prepares detailed annual estimates of production costs for all major commodity groups. These estimates include operational and nonoperational costs. Figure 13 uses USDA cost-of-production estimates and associated transport charges as a reference point for assessing export dumping in 2001. It expresses export prices as a percentage of these costs. Briefly summarized, it shows that major export crops such as wheat, maize, rice, and cotton were being exported at prices 20–50 percent below the average costs of production. As research by the Institute for Agriculture and Trade Policy has shown, this is part of a consistent pattern that has intensified since the mid-1990s (IATP 2002).

Of course, it can be argued that constructed value is an accounting concept of little relevance to investment decisions. There is some truth in this argument. From the standpoint of any producer, what matters is marginal cost and marginal price. Opportunity costs for land and labor, and depreciation of assets, are not likely to

FIGURE 13.
U.S. Export Price (2001) as Percentage of Cost of Production (2002)
 (selected commodities)



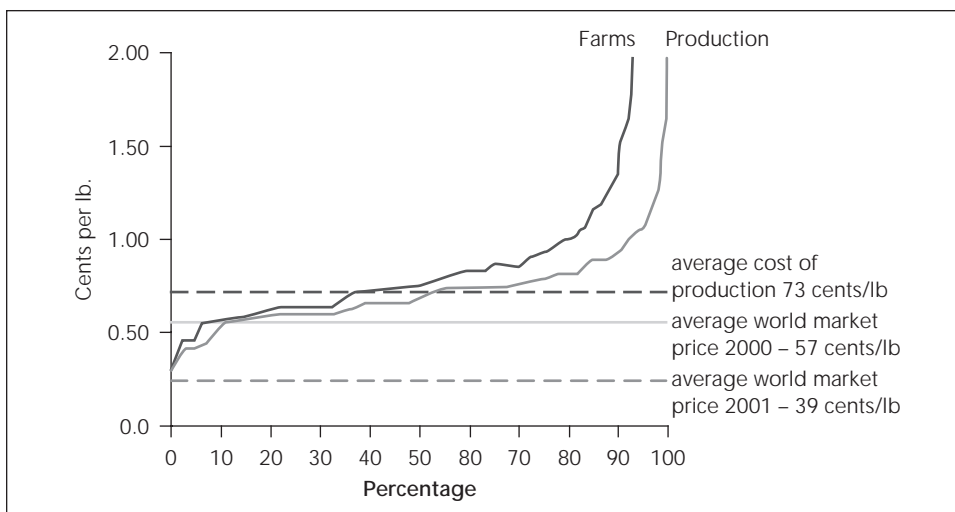
Source: Cost of production data from USDA 2003, table 1; transport costs IATP 2002; export price USDA 2002, table 24.

influence planting decisions, at least in the short-term. Even so, for some crops exported in large quantities a large share of U.S. production would not be feasible over the long term at current price levels without high levels of support. This is true even of the wheat sector, where the United States is a major exporter. Research by the USDA for 1998 found that only 15 percent of farmers were able to produce wheat at or below the prevailing market price (Ali 2002, p. 6).

Cotton provides a particularly stark example of the large gap between U.S. export prices and production costs. USDA data estimate the average cost of production at 73 cents/pound, which is evenly divided between operating and overhead costs (Brooks 2001). In recent years, world market prices have fluctuated between 35 cents/pound and 50 cents/pound. In the absence of government support, even some of the lowest-cost U.S. farms would be uneconomic at this price level. As shown in figure 14 virtually no U.S. cotton farm could cover costs at 2001 price levels, and only 10 percent could operate at 2002 price levels. Despite this, the United States has retained its dominant position in global markets through one of the deepest price slumps of the post-war period—and it has done so without recourse to export subsidies (as defined by the WTO).

This apparent defiance of economic logic has a simple explanation: direct payments to farmers (see figure 14). Cotton producers received \$3.8 billion in government support in 2001. Roughly two-thirds of this came in the form of price support and another third in Green Box payments. The end result was that U.S. cotton

FIGURE 14.
Cumulative Distribution of U.S. Cotton Production Costs and World Prices (1997)



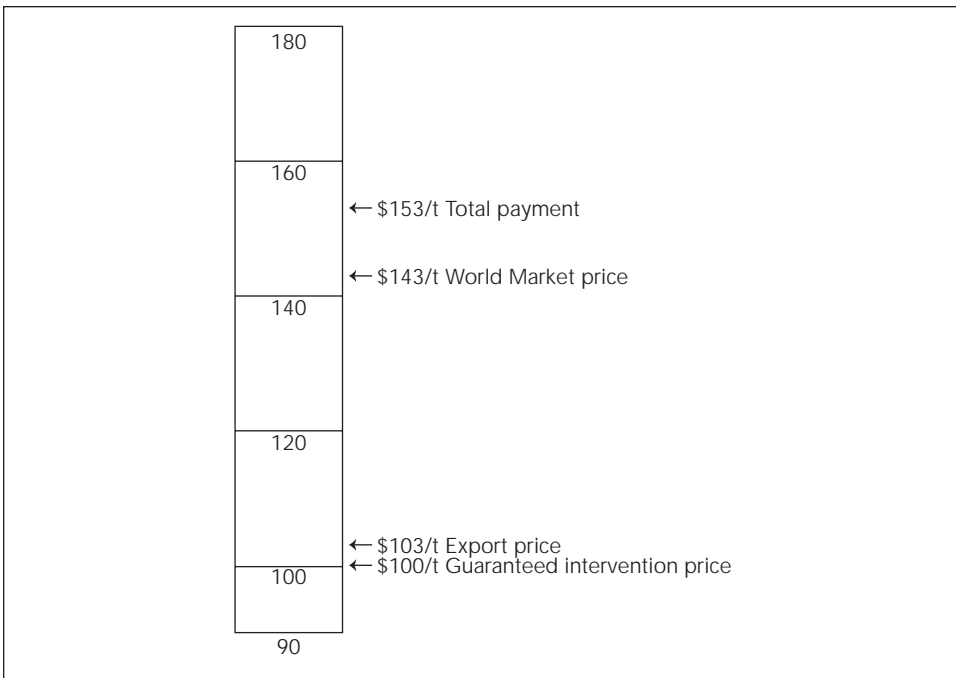
Source: Brooks 2001.

producers were paid a unit price 48 percent higher than the world market price. This is of some importance to Africa and other developing regions, not least because it means that millions of small farmers are competing in markets that are highly distorted by subsidized competition.

The hidden export subsidies built into current U.S. farm support systems can be further illustrated another way (figure 15). Production decisions in agriculture are shaped by assumptions about marginal price. In the case of agriculture, the anticipated marginal price is in turn influenced by government interventions in the market. The 2002 Farm Act effectively sets two price floors: the loan rate and the target price.¹⁵ The loan rate is a minimum guaranteed price, defended through market intervention. The target price plays a different role. It indicates the price needed to achieve a politically determined minimum income level for producers. Target prices provide the trigger for countercyclical payments. These are made when the sum of the market price (or the loan rate if the market price is lower) plus the automatic direct payments falls below the target price. In other words, the target price sets a minimum income that producers can anticipate, taking into account countercyclical payments and direct payments. Simulations carried out by the Economic Research Service of the USDA illustrate this by capturing market revenues and government program payments under different price scenarios. For the maize sector, these simulations show that when prices fall below the loan rate, producers are guaranteed an income one-third above this level through direct and countercyclical payments (ERS 2002b, p. 12).¹⁶

For sectors in structural surplus, the gap between the target price (which defines anticipated income) and export price includes an implicit export subsidy element. Obviously, the gap varies according to fluctuations in world price. Table 1 sets out

FIGURE 15.
Hidden Subsidies in the European Union: "Real" Prices for Wheat Producers (\$/ton)



Source: International Grains Council.

the relationship between the target price and the export price for three of the major U.S. export commodities: wheat, maize, and cotton. It takes as a reference point the 2001 export price and establishes the gap between this price and the target price, which broadly corresponds to the income that a producer would anticipate under prevailing market conditions.

For each of the three commodities investigated, the 2001 export price was below the target price, pointing to an implicit export subsidy. The level of that subsidy ranges from 10 to 16 percent for wheat and maize up to 40 percent for cotton. Column (5) converts the unit value of the subsidy into a \$/ton equivalent. Multiplying this unit value by the total volume of exports points to a high level of effective subsidization, amounting to around \$3 billion in total. For wheat and maize this amounts to \$1.1 billion, rising to \$1.9 billion for cotton. As shown in column (8) of table 1, these subsidies represent a significant share of the value of exports, amounting to 92 percent in the case of cotton and 11–14 percent for wheat and maize. Of course, both the level of export subsidy and the subsidy/value ratio would change under different export price conditions. But the important point is that the 2002 Farm Act includes a very significant potential to provide de facto export subsidies that fall outside of the WTO definition. No U.S. export subsidies were recorded for any of these crops in 2001.

**TABLE 1 .
Implicit Export Subsidies in the U.S.: Selected Commodities under 2002 Farm Act at 2001 Prices**

| Commodity | Price levels | | | Implicit export subsidy | | | | |
|-----------|--------------|-------------------|------------------------|-------------------------|---------------------------|---------------|------------------------|--|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | Loan Rate | Target Price (TP) | Export Price 2001 (EP) | EP as % TP | Unit value of TP – EP gap | Export volume | Export subsidy (5)X(6) | Subsidy as % share of total export value |
| Wheat | \$2.80/bu | \$3.86/bu | \$3.50/bu | 90 | \$13.2/t | 25.2 mt | 333 | 11 |
| Maize | \$1.98/bu | \$2.60/bu | \$2.20/bu | 84 | \$15.7/t | 48.2 mt | 757 | 14 |
| Cotton | \$0.52/lb | \$0.74/lb | \$0.39/lb | 60 | \$771/t | 2.5 mt | 1928 | 92 |

bu, bushel; lb, pound; t, ton; mt, metric ton.

Source: USDA 2002, table 19 (for loan rates and target prices); table 24 (for export prices; and table 27 (for export volume).

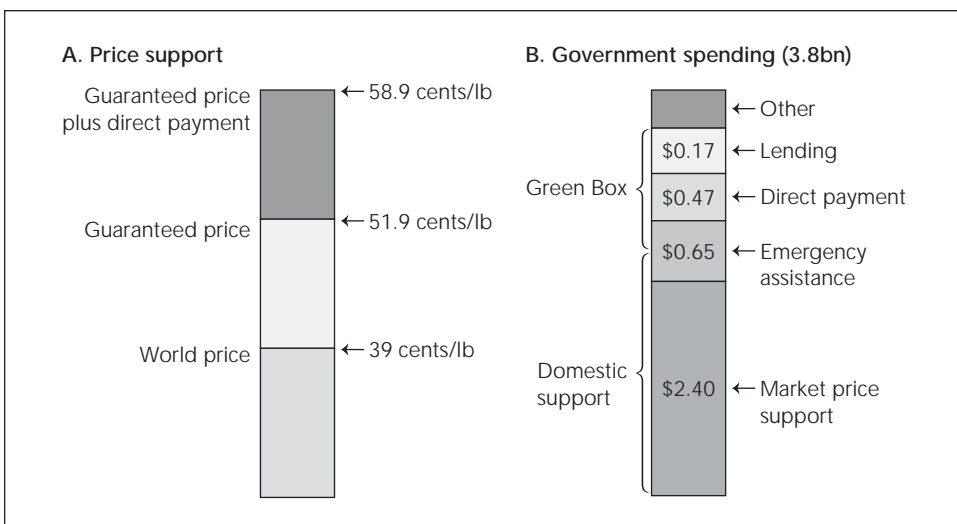
***Hidden Export Subsidization Through Direct Payments:
The Case of the European Union***

Applied to the European Union, measurement of the unit value of payments to farmers helps to dispel one of the myths that have accompanied CAP reform in the cereals sector: namely, that export subsidies have been eliminated.

Under the old CAP regime, export subsidies filled the gap between domestic guaranteed prices and export prices, thereby conforming to the WTO model of a direct export subsidy. With reform, prices have been pushed down toward world market levels, removing the need for direct export subsidies in most years. Producers have been partially compensated for lower guaranteed prices through direct payments to farmers (see Podbury and others 2001). Figures 16 and 17 illustrate how the new structure has shifted the distribution of support. Using 2000/2001 export prices and direct payment rates as a reference point, figure 17 shows that export subsidies of around €40/ton would have been required prior to reform in order to bridge the gap between export price and guaranteed price. In 2000/2001, no export subsidy was required because world prices were above the (lower) guaranteed price. However, the real income for producers per unit exported was only partly determined by world market price. This was because producers received a direct payment linked, in this case, to past production levels. Receipt of the direct payment thus has an important bearing on producer expectations about overall income.

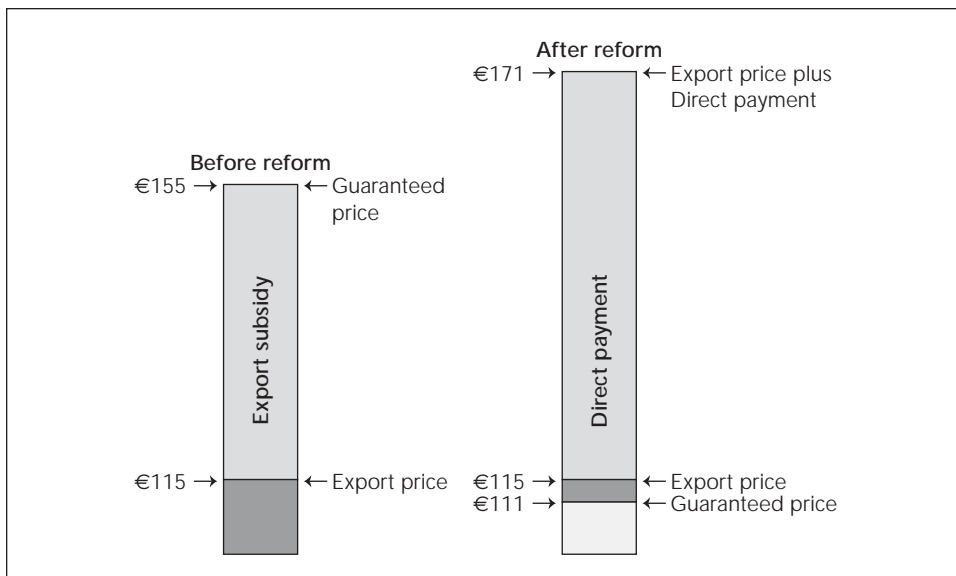
Converting direct payments into export subsidy equivalents is a relatively straightforward affair. Under the reformed CAP cereals regime, payments are provided through a formula that establishes a direct payment, or compensation rate, set in

FIGURE 16.
Dumping Without Export Subsidies: U.S. Cotton (2001)



Source: USDA/ERS 2002a,d.

FIGURE 17.
Effect of CAP Reform on Subsidy Structure: Wheat Sector



Source: Oxfam.

terms of €/ton.¹⁷ Each EU country then calculates output per hectare for a period at the end of the 1980s. These serve as reference yields. Producers are then paid on the basis of their land area under cereals cultivation or set aside from production.¹⁸ The formula for calculating payments is as follows: Land area \times reference yield \times direct payment rate = payment amount. Because payments are based on a fixed yield in an earlier period rather than on current production, they are not counted as market-based price support subsidies. Dividing the direct payments made on the basis of the formula described above by output in any given year provides a unit value subsidy in terms of €/ton of cereals. Output can be calculated by taking the area currently under cultivation (minus the set-aside area) and multiplying it by actual yield.

Table 2 shows the effective direct payment subsidy value expressed in €/ton for French wheat, the main source of EU exports. The unit value rises as production declines, hence the variations in the left-hand column of the table. We estimate the unit value at €56/ton for 2000 and €64/ton for 2001. We then convert unit payments into an export subsidy equivalent, multiplying them by export volumes for the relevant years. The figures tell a very different story from official EU records. They suggest that real export subsidies amounted to \$2.2 billion from 1999 to 2002—a period during which minimal direct export subsidies were recorded. These figures suggest that direct payments in the European Union play a critical role in the subsidized transfer of cereals surpluses to world markets—and that the cuts in subsidized exports under CAP reform are largely illusory.

TABLE 2.
Hidden Export Subsidies: EU Wheat (1999–2001)

| Year | Real unit value of direct payment | Wheat export volume | Implicit export subsidy (in millions) | |
|-----------|---|------------------------|---------------------------------------|---------|
| 1999/2000 | 51.4/t | 16.7 mt | €858 | \$926 |
| 2000/2001 | 56.1/t | 14.5 mt | €813 | \$772 |
| 2001/2002 | 64.4/t | 9.5 mt | €611 | \$537 |
| Total | | 40.7 mt | €2,282 | \$2,235 |

t, ton; mt, metric ton.

Source: Oxfam calculations.

Decoupling Revisited

The facts of disguised export dumping call into question the analytical basis for maintaining current approaches to decoupling. New conceptual and analytical approaches are needed that take into account real subsidy effects rather than WTO accounting arrangements.

Reduced to its essentials, the case for decoupling rests on assumptions about the relationship between income transfers and production. The elements of the case are well known. When the farmer is making planting decisions, so the argument runs, the marginal revenue of additional production is not affected by program benefits. This is because payments are fixed on the basis of yields and production in a past reference period. Thus the incentive price for output at the margin is unaffected. But even if it is true that direct payments may not change incentive prices, it does not follow that they do not influence production decisions and overall output. Although payments may not alter marginal price incentives, they increase the current income of producers and create expectation of future payments.

As for any increase in present or anticipated future flows on income, nominally decoupled payments can have important effects on investment, spending, and perceptions of future risk (Burfisher and Hopkins 2003; Josling and Tangermann 1999). There are three obvious channels of influence:

- **Risk effects.** Direct payments may create insurance effects, changing producer perceptions of risk. This is especially true of countercyclical payments. Such payments reduce revenue variability because they provide variable payments that compensate for losses associated with falls in market price. Analytical work on this theme has shown that countercyclical payments create risk-reducing incentives to produce that are comparable to those generated by market-based interventions, though on a smaller scale (Hennessy 1998). Guaranteed support based on land ownership also strengthens land value and hence capacity to borrow and undertake investments (McElroy and others 2002).

- **Wealth effects.** A guaranteed stream of direct income payments may increase producers' willingness to plant. It may also reduce liquidity constraints, enabling producers to increase investment in their operations, for example through the purchase of land, equipment, or inputs. Indirectly, guaranteed direct payments may make it possible for recipients to expand their access to credit. For example, they may raise the rental value of land and hence future income streams. In each case, there is clearly potential to stimulate output (OECD 2001c).
- **Land allocation effects.** As noted earlier, the 2002 Farm Act allowed farmers to update the base acreage on which direct and countercyclical payments are calculated. If updating today leads farmers to anticipate that future legislation will again update base acreage and yields, there is a clear incentive to build base acreage for the future. This raises the question of whether even fixed countercyclical payments can be considered to be production-neutral (Orden 2003; OECD 2001b).

Each of these effects is of special importance in the European Union and the United States, for two reasons. First, the scale of export production is such that any direct support that has an impact on production in surplus crop sectors includes both a production and an implicit export subsidy. Second, the level of financial resources directed toward a relatively small number of producers potentially generates far stronger production signals than it does in other countries.

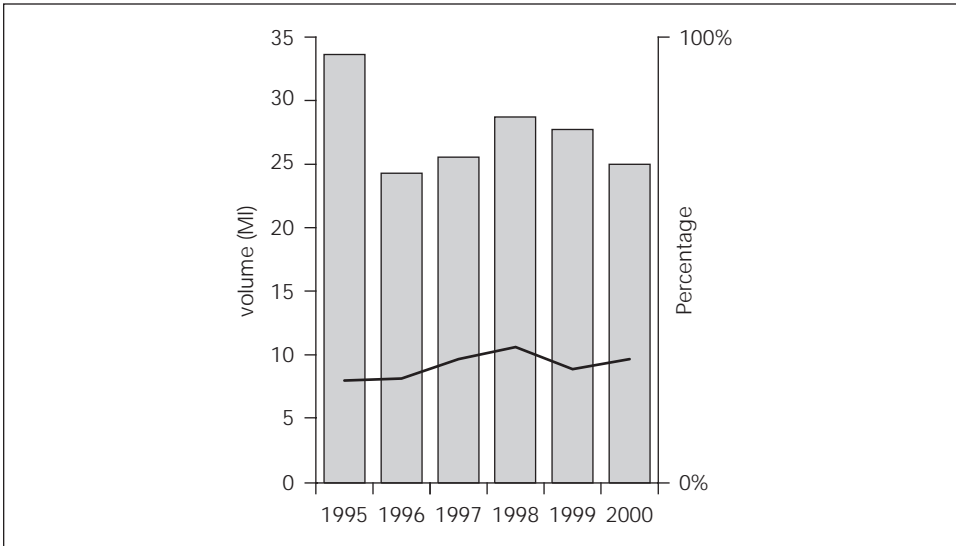
U.S. Export Credits and Food Aid as Disguised Dumping

With more stringent WTO disciplines being applied to export subsidies and, to a lesser degree, production-based interventions, there is a danger that countries will shift support to other measures not subject to WTO rules. Export credit and food aid programs are natural transfer points for the continuation of disguised dumping practices.

While most industrialized countries operate officially supported export credit and food aid programs, U.S. practices are especially important, for two reasons. First, by virtue of the dominant market position of the United States, any interventions it makes have global market effects. Second, the United States is the world's largest provider of food aid, accounting for some two-thirds of the total, and the largest user of subsidized export credit. Taken together, these programs account for a significant share of overall exports in some key commodity groups. For example, concessional food aid and officially supported export credits have consistently accounted for over one-fifth of U.S. wheat exports (figure 18).

It is difficult to extrapolate export subsidy equivalent figures from credit and food aid programs. However, it is clear that these programs already include significant subsidized export financing. Total financing capacity through under the 2002 Farm Act amounts to around \$7.7 billion. An additional \$101 million is provided through credit-based food aid programs. The overall aim of export credit programs is unambiguous. In the USDA's own words: "Programs are designed to develop and expand

FIGURE 18.
U.S. Wheat Exports: Share Covered by Concessional Sales and Export Credits
(1995–2001)



Source: ERS/USDA.

commercial outlets for US commodities” (ERS 2003a). Against this background, it is important that export credits and food aid figure prominently in any WTO negotiations aimed at addressing the problem of agricultural export dumping.

Export Credits

The impact of government-supported export credit programs is broadly similar to that of explicit export subsidies. They lower the effective purchase price paid by importers in favor of the exporting country, thereby encouraging diversion of demand. Government programs typically include direct and indirect subsidies. The direct subsidy rate can be thought of as the difference between the interest rate and repayment period for importers backed by an official guarantee, and the market rate faced by those that are not. Indirect subsidies arise from the reduction of risk implied by government guarantees and credit insurance (Rude 2000; Hyberg et al. 1995).

Industrialized countries rapidly increased the use of export credits following the Uruguay Round agreement. Government-sponsored export credits rose from \$5.5 billion in 1995 to almost \$8 billion in 1998 (OECD 2000b). Although the overall subsidy element was relatively low, this was not the case for the United States. Loan duration appears to have been the main factor: over 90 percent of officially supported U.S. credits were of more than one year in duration (compared with 2 percent for the European Union). OECD estimates suggest that the United States accounted for the overwhelming bulk of world subsidies provided through export credit programs at the end of the 1980s. This calls into question claims by the United States

that its agricultural export credit operations are commercial programs rather than export subsidies (Podbury et al. 2001).

U.S. export credit programs matter to world agriculture, partly because of the dominant position of the country in world markets and partly because of their sheer scale. The key credit programs are the GSM-102 and the (much smaller) GSM-103 (these programs are described in ERS 2003b). Both are essentially insurance programs, underwriting credits extended by the private sector on agricultural exports, for up to three years and ten years respectively. Taken together, these are by far the largest agricultural export credit programs in the world, with \$5.5 billion allocated under the 2002 Farm Act. Another important tranche of subsidized financing is provided through the USDA Supplier Credit Guarantee Program. Designed to encourage U.S. exporters to expand markets in areas where commercial financing is not available, the 2002 Farm Act doubled maximum credit terms under the program to one year. The Caribbean, Central America, and Hong Kong (China) figure prominently among the markets targeted. Financial allocations under the various credit subsidy packages are geared toward commodities covered by farm support programs: wheat, feedgrains, and protein meals account for over half of total allocations. This concentration on a narrow range of commodities, allied to a parallel concentration on strategic markets, has enabled the United States to deliver high levels of subsidized support in relation to market price. Financing provisions for subsidized credit programs are summarized in table 3.

TABLE 3.
Officially Supported US Agricultural Export Credit Programs

| Program | Funding (\$bn) | Purpose |
|---------------------------|----------------|--|
| GSM 102 / GSM 103 | 5.5 | GSM 102 - Guarantees repayments of short-term credits (90 days to 3 years) extended by US exporters to foreign banks. GSM 103 - Guarantees repayments of long-term credits (3 to 10 years). Both programmes widely used in developing countries. |
| Emerging Market Program | 1.0 | Provides credit or credit guarantees to emerging markets to support market development. |
| Supplier Credit Guarantee | 1.1 | Provides short-term credit to foreign buyers in markets where commercial financing is restricted. 2002 Farm Act doubled credit terms to one year. Used in Latin America, West Africa, and South East Asia in 2002. |
| PL 480 Title 1 | 0.1 | Provides direct financing for sales of US agricultural commodities to developing countries. Financing is provided on concessional terms with credit up to 30 years and five year grace period. |
| Total | 7.7 | |

Source: Economic Research Service 2002a.

Export Subsidy Effects

There are serious methodological problems in attempting to derive export subsidy equivalents from officially supported export credit figures (see OECD 2000b; Wilson et al. 1999). The OECD has attempted to calculate the direct subsidy element by comparing future payment streams for importers covered by officially supported export credits, and those not so covered (OECD 2000b, pp. 13–4). For 1998, the period covered by the study, the effective U.S. subsidy rate was estimated at 6.6 percent. The Commodity Credit Corporation (CCC), the financing body responsible for the credit programs, uses a different approach based on financial accounting. It calculates a subsidy rate that takes into account the terms of the loan, payment periods, fees, and the estimated amount of default. The time lag between credit provision and default introduces obvious accounting difficulties, but the inclusion of defaults is clearly a critical risk-related component that is important in determining real subsidies. For 1998, the CCC estimated the subsidy rate on credit programs to be 9 percent (OECD 2000b).

Using the OECD and CCC estimates as parameters makes it possible to provide an indicative figure for the credit-based export subsidy built into the 2002 Farm Act. For the combined programs, the implied export subsidy component is between \$508 and \$693 million. Actual subsidy payments will, of course, depend on the degree to which this capacity is utilized. To put this figure in context, it compares with \$80 million in direct subsidies reported by the United States to the WTO (OECD 2002a).

Export credits are strategically used by the United States to target key markets and products. Around one-third of GSM-102 funds are allocated to high value-added exports. For fiscal year 2003, around 40 percent of credit guarantees have been allocated for use in Latin America, with Mexico accounting for just under half of this total. One obvious implication is that the United States will be well placed to exploit any moves toward import liberalization under regional and multilateral trade agreements. But the advantages conferred by export credits have implications both for local producers competing with U.S. exports and for rival exporters.

Current international rules regulating the use of export credits are exceptionally weak. These rules are set out in the OECD's *Guidelines for Officially Supported Export Credits*—a nonbinding, voluntary arrangement from which any participant may withdraw at any time. The *Guidelines* set out a list of “best endeavours,” including broad commitments to avoid long-term credit provision and repayment periods. However, the maximum repayment time target for cereals is set at two years, and there are no effective provisions constraining interest rate subsidies (OECD 2000c).

Food Aid as a Trojan Horse

In a world where over 700 million people are malnourished, food aid is not an immediately obvious agricultural trade issue. Access to food is a fundamental human right—and food aid systems have a vital role to play in protecting that right. Food aid plays a vital role in alleviating suffering, responding to humanitarian emergencies, and supporting social development. All too often, however, food aid programs

are distorted by commercial export objectives. In some cases they are used to disguise the dumping of surplus commodities with a view to displacing local produce and fostering market development.

International food aid programs can be traced back to the mid-1950s. It was during this period that U.S. policy makers, faced with mounting agricultural surpluses, sought to create overseas demand through food aid. The predominant form of aid was not in grants but in concessional finance provided under Title 1 of Public Law 480 (PL 480). This finance was aimed at overcoming liquidity constraints that hindered imports and at developing new markets (Cathie 1985).

Many of the major recipients of aid over the following two decades—such as Mexico, Colombia, Korea, Taiwan (China), and the Philippines—subsequently became large commercial markets. Food aid became the Trojan horse of commercial agricultural trade (Cathie 1985). At best, food aid provision was weakly related to need. During the world food emergency of 1973, when prices for cereals peaked at record post-war levels and many developing countries faced chronic food security problems, PL 480 shipments dropped to less than one-tenth of the level provided in the mid-1960s. The reason: commercial sales made surplus disposal unnecessary (Lappe and Collins 1982, p. 93).

The central features of PL 480 remain intact, including the priority attached to market development (Ruttan 1993). Title 1 is still directed toward countries experiencing difficulties in financing commercial imports because of foreign exchange shortages. In all but name, it is a subsidized export credit program. Financing provisions include repayment terms of up to 30 years, low interest rates, and grace periods of up to 5 years (USDA/FAS 2001b). While local needs now figure in the U.S. mission statement, eligible countries “also must demonstrate the potential to become commercial markets for US agricultural commodities” (USDA/FAS 2003). Other programs—such as Food for Progress and Section 416(b)—authorize the use of concessional finance to transfer surplus agricultural stocks overseas. Availability depends on U.S. inventories rather than on any assessment of need.

In financial terms, government allocations for food aid are significant. For fiscal year 2002, foreign food assistance under the programs administered by the USDA were valued at \$598 million, or slightly over one-half of total financing for food aid (USDA/FAS 2003). Current budget authorizations for Title 1 programs amount to \$176 million. The 2002 Farm Act sets minimum annual commodity tonnage for the purchase of surplus produce and raises the financing ceiling for some of the key food aid programs.

Food aid continues to provide an important outlet for U.S. agricultural surpluses. There are large annual variations in aid disbursements, with supplies tending to decline as world prices rise and commercial outlets become available. In the high-price period 1995–7, food aid accounted for between 4 and 7 percent of U.S. exports, rising to 12–20 percent as prices weakened in 1999–2000.

Along with the surplus dumping, the Trojan Horse function of food aid has also continued. In the early 1990s, the Philippines was unable to sustain imports of high-protein soya meal because of foreign exchange difficulties. PL 480 was used to help

finance the purchase of U.S. exports. Ten years later, the Philippines was the largest market for U.S. high-protein soybean meal, with American exporters accounting for 90 percent of total imports (USDA/FAS 2001b, p. 7). The countries targeted under Title 1 as markets with a potential for high growth do not figure prominently in international assessments of countries needing additional food aid. For fiscal year 2003 the largest recipients will be Indonesia, Jordan, the Philippines, and Uzbekistan. In Latin America, Title 1 is heavily used to promote exports of wheat to El Salvador, Guatemala, and Peru (USDA/FAS 2002c).

Although large sections of the U.S. food aid program are of limited relevance to the food-insecure people in poor countries, they are of great benefit to U.S. corporations. Agribusiness companies are among the major beneficiaries of PL 480. Access to surplus agricultural stocks facilitated by concessional finance provides U.S. traders with a powerful mechanism for expanding markets, often at the expense of local producers and other exporters. USDA records for PL 480 transfers illustrate the point (USDA/FAS 2002a). For the period May–September 2001 these records show Archer Daniel Midland, one of the world’s largest grain traders, receiving Title 1 contracts worth \$35 million, around half of them for supplying corn and rice to the Philippines. The Cargill corporation was given access to another \$9 million in surplus commodities, principally for the Philippines and Indonesia.

Estimating export subsidy equivalents is even more difficult for food aid than it is for export credits. On the basis of financing arrangements and market destination, there is a strong case for arguing that the entire Title 1 program represents an export subsidy regime—one that allocated \$101 million in 2002 (USDA/FAS 2002c).

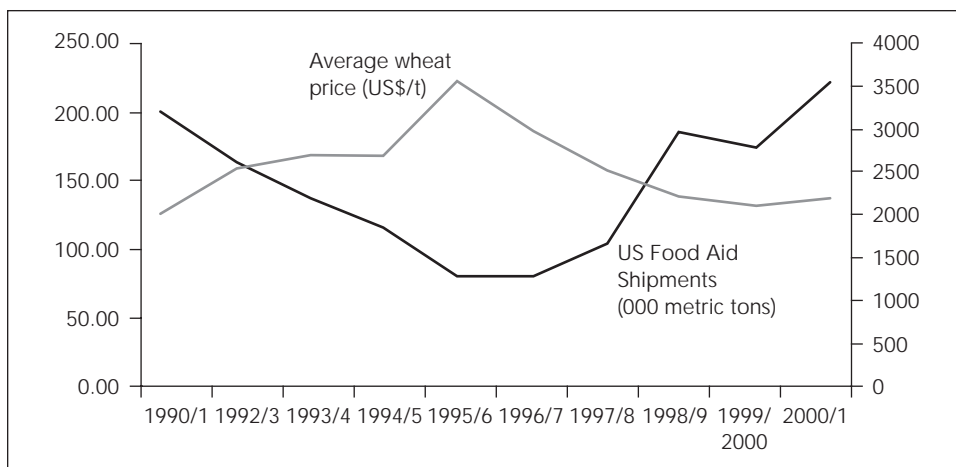
Including wider CCC surplus-purchasing activities aimed at expanding commercial markets would considerably magnify this figure.

Supply-Driven Food Aid

Policy makers in the United States frequently claim that, whatever the pre-history, current food aid policies are now governed by humanitarian imperatives. This claim is difficult to square with the evidence.

Even a cursory glance at the data raises fundamental questions about food aid priorities. For example, Ethiopia is at present threatened by a major famine, with 15 million people at risk. There are major shortfalls in international pledges of food aid. Yet the country receives approximately the same level of food aid from the United States as Peru receives, which is seen as an important commercial outlet for dairy and other agricultural surpluses (USDA/FAS 2002b).¹⁹ Notwithstanding the very real food security problems faced by the poor in Peru, such priorities are difficult to square with any genuine assessment of need. Similarly, the \$38 million provided in food aid to the Philippines is more than the combined total allocated to Malawi, Mozambique, Swaziland, Zambia, and Zimbabwe—countries facing chronic food shortages because of drought and bad governance (USDA/FAS 2002b, table 1). In southern Africa, as in eastern Africa, food aid transfers have fallen far short of the levels targeted by the United Nations.

FIGURE 19.
Average Wheat Price (US\$/ton) and U.S. Food Aid Shipments (000 metric tons)



Source: International Grains Council (seasonal data).

If food aid supplies were responsive to need, they would rise when world prices were high and fall when they were low. The stated purpose of program food aid (as distinct from emergency aid) is to provide financial assistance to countries with balance-of-payments difficulties. Recipients would be expected to experience the greatest balance-of-payments problems when agricultural prices were high. In fact, evidence from the 1990s suggests that supply is inversely related to need: food aid volumes have been greatest at times of low world prices, and have declined in periods of high world prices. Program food aid provides the greatest benefit when there is least need, and the least benefit in periods of greatest need. Figure 19 illustrates the relationship between world price and food aid transfers. As in earlier periods, the evidence strongly suggests that the scale of transfer is linked to the availability of domestic U.S. surpluses and to the availability or otherwise of commercial markets for these surpluses.

From a food security perspective, food aid volatility is a source of acute danger. Between 1992 and 1996 total U.S. cereals shipments fell for four consecutive years, to less than one-third of the 1992–3 level. When world prices for wheat rose by 30 percent in 1994–5, U.S. food aid fell by an equivalent amount as commercial markets offered more profitable outlets. The trend was thrown into reverse gear toward the end of the decade as world prices weakened. U.S. food aid disbursements almost doubled in 1998–9 when newly accumulating stocks of wheat were transferred to Russia and Indonesia (ODI 2000). Between 1999 and 2001 U.S. grain shipments under the Food Aid Convention (FAC) more than doubled again, to 10.2 million tons, as world prices collapsed and domestic surpluses accumulated.

Such facts suggest that the FAC, under which donors pledge to deliver specified annual amounts of food aid, has been largely ineffective in securing guaranteed and

predictable supplies. For regions that depend heavily on food aid this poses acute problems, notably in the case of sub-Saharan Africa. Food aid accounts for a large, though declining, share of the region's cereal imports, representing around one-fifth of the total. In the 1980s, low world prices and the rapid build-up of stocks in industrialized countries guaranteed food aid availability well in excess of the minimum levels guaranteed under the FAC. But in the 1990s food aid shipments fell sharply, from 15 million tons in 1992–3 to just under 9 million tons in 1998–9 (Stevens and Kennan 2001b, p. 178). The fall in shipments was steepest for low-income food-deficit countries, where transfers fell by 63 percent. Supply-side factors, rather than changing nutritional or economic circumstances, appear to have been the factor behind the decline.

The Case for WTO Disciplines

Food aid will continue to play a critical role in international poverty reduction efforts. Provided in response to natural disasters, crop failures, or humanitarian crises, it can save lives and alleviate suffering. In some circumstances, the “monetization” of food aid through local sales can also generate financial resources for spending in key areas, such as health, education, and rural infrastructures. The problem is that the absence of effective disciplines on the use of food aid both undermines its effectiveness and exposes small farmers in developing countries to the threat of unfair competition.

At present, the only rules in place—as for export credits—are voluntary arrangements. The FAO's “Principles for Surplus Disposal” set guidelines that include injunctions against the displacement of commercial imports and a requirement “that domestic production is not discouraged” (FAO 1992). However, these are nonbinding principles that have little real impact on food aid practices (Shaw and Singer 1996). Similarly, the USDA operates “usual marketing requirements” under which the U.S. government is required to consult with other countries to ensure that food aid sales do not disrupt normal commercial trade or local markets. Like the FAO's guidelines, these have done little to influence the use of food aid as a surplus disposal mechanism integrated into wider systems of farm support. To overcome these problems, food aid needs to be governed by binding multilateral disciplines, including more effective WTO disciplines on the use of export subsidies.

From the Uruguay Round to the “Development Round”

It is too early to assess whether or not the Doha Round of WTO negotiations will address the problems raised in this paper. Early signs are not encouraging. Eighteen months after their ministerial declaration, differences between the European Union and the United States have culminated in a deadlock.

It is important for poverty reduction efforts that this deadlock is broken. There are also less enlightened reasons for the European Union and the United States to negotiate constructively with developing countries. Article 13 of the AoA includes

an arrangement known as the “Peace Clause”—in effect a moratorium on formal complaints against its key provisions. Under this arrangement, Green Box and, to a slightly lesser degree, Blue Box measures are largely exempt from challenge in the WTO. The deadline for the expiry of the Peace Clause is the end of 2003. After this date the full range of exemptions and special provisions introduced on behalf of Europe and the United States in the Uruguay Round will be open to challenge. This raises the specter of an endless stream of bilateral and multilateral disputes, which could in turn jeopardize prospects for progress in the Doha Round and destabilize the global trading system.

In this section we look at the issues at stake in four key areas, focusing on the proposals of the European Union (European Commission 2002b, c), the United States (USDA/FAS 2002d), and the chairman of the WTO negotiating group on agriculture, Stuart Harbinson (WTO 2003a). The areas are as follows:

- export measures
- domestic support
- market access
- special treatment for developing countries

Export Measures

As shown in the previous section, direct export subsidies have fallen since the Uruguay Round. They have been virtually eliminated in the United States and almost halved in the European Union, which remains the major subsidizer. However, serious problems remain. These relate to the shift in subsidy structure toward direct payments not classified as export subsidies, and the use of food aid and export credits by the United States.

The United States has proposed eliminating direct export subsidies—a no-cost option for itself. However, it has been considerably more cautious in its approach to export credits and food aid. Recent proposals call for export credit programs to be permitted for arrangements involving interest and repayment periods of up to 6 months, and 30 months for developing countries, with a one-year grace period (USDA/FAS 2002d). Interest rates would be required to reflect borrowing costs for the government providing credit, thereby eliminating any assessment of the actual interest rate and risk premium subsidy in the borrowing country.

Constrained by the failure of member states to agree to CAP reform measures that would eliminate the need to subsidize exports, the European Union has proposed a 45 percent cut in subsidies over six years and the elimination of export refunds on cereals. The latter option is now possible because intervention prices have been aligned with world prices, with the burden of income support shifted to direct payments. In fact, the European Union could achieve a 45 percent export subsidy cut with limited pain. This is especially true in the cereals sector, where the combination of higher world prices and reduced intervention prices have almost eliminated direct export subsidies.

Proposals from the WTO secretariat have fallen between the parameters set by the European Union and the United States. They are based on a complex formula that

would reduce and eventually eliminate export subsidies over a six-year period, from 2006 to 2013. Deeper cuts would apply in the early years. The Harbinson proposals on the use of export credits are stronger than those proposed by the United States. They envisage shorter grace periods, the application of full commercial interest rates plus a risk premium, and hedging for foreign exchange risk where credits are repayable in local currencies. However, export credits for developing countries would be subject to weaker repayment rules and, for basic foodstuffs, less stringent rules on repayment. If the aim is to protect developing country farmers against subsidized competition, this is the opposite of what is needed.

The most serious problem with all of these proposals is that they fail to address what is arguably the key policy challenge: namely, how to respond to the conversion of export subsidies into direct payments. As argued earlier in this paper, direct payments may be different to export subsidies, but they include a clear export subsidy component. More analytical work is needed to quantify this effect. More immediately, the agricultural trade negotiations need to revisit the increasingly artificial distinction between direct payments on the one side, and production payments and export subsidization on the other. This is especially true in sectors that are in constant surplus production. Among the measures needed are:

- **The development under OECD auspices of an export subsidy equivalent measure for direct payments.** A preliminary report was to have been delivered in advance of the Cancun ministerial meeting in September 2003.
- **An export subsidy prohibition and “early harvest” of subsidy cuts.** A prohibition on direct and indirect export subsidies should be introduced by 2010. More immediately, the European Union and the United States should agree to early harvest measures, including the phasing out of export subsidies on products of special significance to the world’s poorest countries. U.S. cotton and EU sugar should be immediate priorities. The guiding principle for the prohibition on export dumping should be that agricultural goods are not exported at prices below the *effective price* received by producers, taking into account direct payments, or costs of production. This would bring agriculture into line with the basic principles of WTO anti-dumping rules: namely, no export at prices below costs of production or those received by producers.
- **A prohibition on export credit subsidies.** Export credits should be provided at full market interest rates and commercial repayment terms, taking into account market conditions in the importing country. No distinction should be made between developed and developing countries. An OECD committee should be created to monitor and assess implicit export subsidy elements in officially supported export credit programs. New rules were to have come into force in 2005.
- **Elimination of export subsidies from food aid programs.** Food aid should be provided exclusively through untied financial grants, to be used for the purchase of food by the recipient country. Where it is provided in the form of food stocks, this should be provided on grant terms within the framework of programs operated by specialized United Nations food agencies or nongovernment organizations. All ties between food aid and commercial aid programs should be broken, including a

prohibition on the use of export credits and blending of food aid with commercial exports. As for export credits, new rules on food aid should come into operation by 2005.

Taken together, these measures would address some of the most serious problems associated with export dumping. They would also go some way toward restoring the spirit of international rules on dumping. In this context, it is worth quoting Article XV1 of the General Agreement on Tariffs and Trade (GATT), which stipulates: “If, however, a contracting party grants directly or indirectly any form of subsidy that operates to increase the export of a primary product from its territory, such subsidy shall not be applied in a manner which results in ... more than an equitable share of world export trade in that product” (Steinberg and Josling 2003). As shown in the second part of this paper, it would certainly be difficult to square with this principle the dominant position of the European Union and the United States in commodity markets of concern to developing countries.

Domestic Support

One of the key challenges to be faced in developing rules on domestic support is a revision of the distinction between decoupled and trade-distorting payments. As shown in the previous section, many decoupled payments fulfill some of the critical functions of export subsidies: that is, they encourage production and facilitate sales overseas at prices below the effective price received by farmers.

Both the European Union and the United States are seeking to perpetuate current subsidy distinctions. Under the European Union’s proposals, trade-distorting domestic supports would be cut by 55 percent. The United States wants to limit such supports to a ceiling of 5 percent of the value of production. However, as indicated earlier, only around one-half of U.S. government payments fall into the category of trade-distorting. And the scope of the EU proposal would depend on the fate of the Blue Box. What is clear is that a very large support capacity will remain intact under either scenario.

The Harbinson proposals challenge some of the discrepancies inherited from the Uruguay Round agreement. Blue Box payments of the type used mainly by the European Union would be cut by 50 percent (or alternatively be included in the AMS), and Amber Box subsidies by 60 percent over 10 years. For individual products, the AMS would not be permitted to exceed the average recorded over the period 1999–2000. But the proposals envisage the continuation of the Green Box system, in effect legitimising current U.S. practices, and inviting the European Union to go over to this model.

The Harbinson proposals are particularly weak on the question of *de minimis* payments. These would not be eliminated, but reduced by half—to a 2.5 percent ceiling—over five years. This would leave both the United States and the European Union with a very large financing parameter because of the overall value of agricultural production. For 1999, a 2.5 percent *de minimis* provision would have translated into a non-product-specific support entitlement of \$4.6 billion for the United

States, creating a loophole to accommodate the countercyclical payments envisaged under the 2002 Farm Act.²⁰

There is an obvious case for policy makers in rich countries to retain the right to support models of agricultural production that genuinely meet social and environmental policy goals, but without creating incentives for the production of large export surpluses. For example, the underdeveloped second pillar of the CAP reform program could be used to link income transfers to farm management plans geared toward less intensive agriculture. Against this background, more ambitious and forward-looking approaches are needed. These should include:

- **Narrowing of the Green Box.** Direct payments based on past production and land ownership should be treated as Amber Box measures, with an export subsidy component calculated and subject to full export subsidy disciplines. The Green Box should be redefined to include only measures that meet clearly defined public policy objectives *and* do not support surplus production.
- **Deeper cuts for Amber Box payments.** Amber Box transfers should be cut by a minimum of 70 percent, with deeper cuts for payments targeted toward sectors in surplus.
- **Elimination of the Blue Box.** EU Blue Box payments should be subject to the same disciplines as Amber Box payments.
- **Redefinition of the AMS.** Support measures subject to reduction requirements should include all payments that generate overproduction and export dumping, including those currently falling outside the AMS definition.

Market Access

The market access agreement under the Uruguay Round gave considerable discretion to industrialized countries in determining their commitments, and a large number of loopholes to escape effective disciplines. Abundant use has also been made of special safeguard provisions allowing for restrictions on imports. Tariff rate quotas (TRQs) were introduced to establish minimum access opportunities. However, the fill rate for these quotas has fallen over time, pointing to widespread evasion of commitments (Konandreas 2002, p. 4). Each of these problems needs to be addressed in the Doha Round.

Conflict has so far centered on the broad approach to be applied in cutting tariffs and on the depth of cuts. There are two broad approaches: the so-called Uruguay Round approach and the Swiss formula. Under the former, so named because it mirrors the method adopted in the Uruguay Round, tariffs would be reduced by a specified average. The Swiss formula would apply an escalating approach: higher tariffs would be lowered proportionately more than lower tariffs. Most versions of the Swiss formula include a ceiling that no tariff could exceed.

Not surprisingly, countries with high average tariffs and a concentration of tariff peaks have tended to favor the Uruguay Round approach. Those with lower average tariffs and fewer tariff peaks advocate the Swiss approach. The European Union and Japan belong to the former camp; the United States—supported by the Cairns Group—are the major advocates for the Swiss formula.

The United States has called for the harmonization of global tariffs over five years below a ceiling of 25 percent, coupled with a 20 percent increase in tariff rate quotas. The European Union has advocated a 36 percent cut in average tariffs, with a 15 percent minimum for any given tariff line.

The Harbinson's proposal is hybrid of the Uruguay Round and Swiss formula. It combines average tariff cuts with a sliding scale that would reduce higher tariffs proportionately more than lower ones. It envisages a three-tier model:

- The highest tariffs (in excess of 90 percent) would be subject to an average reduction of 60 percent and a minimum cut of 45 percent.
- The middle band (covering tariffs of 15–90 percent) would be subject to average cuts of 50 percent and a minimum cut of 35 percent per tariff line.
- The lowest band (tariffs of less than 15 percent) would be cut by 40 percent, with a minimum cut of 25 percent per tariff line.

These proposals have to be evaluated against the high levels of tariff peaks currently applied in agriculture. Clearly, any cut in tariff has to be assessed in the light of the initial height and the level after any agreed cut.

Thus viewed, the Uruguay Round formula proposed by the European Union produces some distinctly unimpressive results. It would reduce tariffs of 100–150 percent only to 64–96 percent. The average tariff peak would be cut from 28 percent to 18 percent, and the average tariff in agriculture to around 15 percent—still some four times the level for manufactured goods. It has to be emphasized that these figures are simple headline averages. They do not take into account the ample opportunity provided by the use of simple average formulas for creative allocation of tariff cuts. As noted earlier, industrialized countries took full opportunity of the opportunities provided in this area to minimize the real cuts associated with the AoA adopted at the end of the Uruguay Round.

The Harbinson proposals imply some adjustment costs, especially in the European Union and Japan. For example, in the case of the European Union they would leave import prices below guaranteed prices for the unreformed sugar sector. However, import prices for wheat would remain well above guaranteed prices, reflecting the shift in support toward direct payments (Horseman 2003). Such facts suggest that Harbinson's framework would force the European Union more rapidly in the direction of decoupled payments. But it would leave also in place an impressive array of high tariffs. Those currently in the 100–150 percent range would be lowered to 40–60 percent (Ruffer and Swinbank 2003).

Detailed analysis for the European Union has identified 29 EU tariff line items for which tariffs will remain in excess of 50 percent after implementation of the proposed Harbinson cuts, and another 62 products for which tariffs will be in the range of 25 to 50 percent. These tariff lines include products of major interest to developing-country exporters. They include meat, sugar, a wide range of fruits and vegetables, and bananas (Stevens and Kennan 2003, pp. 21–2). Japan would be left with 43 tariff lines in excess of 25 percent and the United States with 31. Once again, the use of averages would also enable Northern governments to repeat the

post-Uruguay Round practice of applying large tariff reductions in commodities representing a small share of output, trading this off for small reductions in tariffs representing a larger share of output.

Failure to reach agreement even on the Harbinson market access proposals, inadequate as they are, raises fundamental questions about the willingness of industrialized countries—notably the European Union and Japan—to expand market opportunities for developing countries. If the commitment to a development round is to be realized, more ambitious approaches are needed. These could include action in the following areas:

- **Overall tariff levels.** All of the proposals would leave developing countries facing tariffs on agricultural goods far higher than average tariffs on trade between the OECD countries. There is a strong case for all industrial countries extending to LDCs and low-income countries the duty-free and quota-free model applied by the European Union. For other developing countries, a modified version of the Swiss formula could be considered: one option would be to set tariff ceilings in the range of 10–15 percent for developing-country agricultural exports.
- **Developing-country preferences.** TRQs provide an opportunity to provide early market-opening opportunities for developing countries. The underutilization of existing quotas suggests that more could be done in this area. More generous provisions of TRQs for developing countries could help increase benefits from trade and reduce adjustment costs associated with the loss of preferences.
- **Tariff escalation.** None of the proposals adequately addresses the task of cutting tariffs on developing-country exports that rise with the level of processing and value-added.²¹ One option would be a simple formula limiting the tariff on processed agricultural goods from developing countries to a level no more than, say, 1.10 times the level on the unprocessed goods.

Special Treatment for Developing Countries

The agricultural negotiations in the WTO have become a flashpoint for wider tensions over the status of developing countries. In principle, the right of these countries to special and differential treatment is universally recognized. That right implies that countries should not have to take on obligations that are not commensurate with their level of development. The Doha Ministerial Declaration reaffirmed that special and differential treatment measures “are an integral part of WTO agreements” and that provisions in this area would be reviewed “with a view to strengthening them and making them more precise, effective and operational” (WTO 2001). Nowhere is this more important than in agriculture. With vital issues of food security and national development at stake, it is imperative that WTO rules support poverty reduction strategies. But little progress has been made in negotiating provisions that respond to the problems faced by developing-country governments and vulnerable populations. While less weight is now attached to (largely illusory) balance-of-payments problems that might affect food importing developing countries as a result of

liberalization in industrialized countries, no coherent framework has emerged for addressing the deeper links between agricultural trade and poverty.

The Problem of Modulation

Most WTO agreements allow for a modulation of commitments. That is, they impose different obligations on different countries. Thus the AoA required developing countries to reduce tariffs by 24 percent over ten years, while industrial countries were required to make cuts of 36 percent over six years. Current proposals from industrial countries and the WTO envisage a continuation of this approach. For example, the European Union advocates a repeat of the Uruguay Round formula. Following the same framework as applied to industrial countries, the Harbinson proposals envisage import tariff cuts ranging from 27 percent (on tariffs under 20 percent) to 40 percent (on tariffs over 120 percent), implemented over ten years. Domestic support would have to be cut by 30 percent over ten years, though payments to small-scale farmers for the purposes of supporting rural economies, and wider payments to maintain domestic production of food staples, would be treated as Green Box payments.

One departure from the Uruguay Round approach to modulation proposed by Harbinson, and broadly endorsed by most Northern governments, is the introduction of a new category of Strategic Products (SPs). Defined as products with an important bearing on food security, these would be subject to lesser requirements for cuts in import tariffs and domestic support. They would also be eligible for coverage under a new special safeguard mechanism to enable developing countries to effectively take account of their development needs, including food security, rural development, and livelihood security concerns. Broadly, the special safeguard would allow for more flexibility in responding to surges of imports (see below).

The issue of country coverage for special treatment in agriculture raises issues of wider concern. An obvious starting point is that states suffering from high levels of food insecurity might expect inclusion. But for WTO purposes, eligibility depends on membership of one of two groups recognized as facing special problems. These are the 23 Net Food Importing Developing Countries (NFIDCs), identified on the basis of balance-of-payments problems faced in importing food, and the 49 Least Developed Countries (LDCs).

An important question is whether this broad approach to modulation and country coverage is sufficient to address the problems of poverty and underdevelopment at the heart of food insecurity. The answer is an emphatic “no.” There are serious problems in a number of areas: namely, tariff flexibility, the identification of Strategic Products, and country coverage.

Tariff Flexibility

Insufficient attention has been paid to the modulation of tariff levels, partly because many developing countries took the opportunity to bind their tariffs at levels far above the applied rate, leaving room for flexibility. For example, India adopted an average bound tariff of 115 percent, against an average applied rate of 34 percent (Gulati and Narayan 2002, p. 4). Under the Harbinson proposals this would leave

India with scope for retaining average tariffs in excess of 70 percent, which is well above applied rates. However, countries that bound tariffs at lower levels could face problems. This group could include Brazil, Ecuador, Egypt, Peru, the Philippines, and Thailand, all of which bound tariffs at less than 40 percent (Konandreas 2002). In some cases—such as Egypt and Thailand—bound rates are already close to applied rates, limiting the scope for flexible tariff responses.

The dangers are readily apparent. Volatile world prices and high levels of subsidization in rich countries have already exposed producers in a number of developing countries to import surges. As shown earlier, India was forced to raise the import tariff on wheat and dairy products when world prices collapsed in the second half of the 1990s. Other countries have also faced difficulties in coping with import surges. In Jamaica, the beef and sugar sectors were damaged by subsidized imports of ground beef and processed sugar at the end of the 1990s. The Jamaican government was unable to respond because applied tariff rates were fixed under regional trade arrangements (FAO 2000). In other cases, agricultural import surges have exacerbated balance-of-payments difficulties and destabilized markets for small-holder farmers. Import tariffs are among the few instruments available to governments to protect their producers against what may be ruinous, often heavily subsidized, competition.

An obvious question to raise in this context is whether it makes sense to liberalize imports in world markets that are so heavily distorted by Northern agricultural policies, past and present. That question takes on a special significance in relation to the livelihoods of small farmers and agricultural laborers. This is not to suggest that agricultural tariffs are in every case an appropriate vehicle for achieving food security goals. However, in many cases they may form an important part of a wider strategy aimed at supporting rural development and wider national food security goals. In a WTO context, rich countries spending \$1 billion a year on agricultural subsidies are not well placed to dictate rules requiring liberalization elsewhere.

Special Products for Food Security

Poor people in rural areas secure entitlements to food through diverse livelihood strategies, including the production of food for their own consumption, cash crops for generating income, and off-farm employment (Dreze and Sen 1989). Redefining food security in terms of a small range of identifiable products would appear to be a particularly opaque way of thinking about the causes of poverty and malnutrition. There is an obvious sense in which, say, cassava in West Africa or rice in Vietnam can be thought of as a food security crop. But as the Government of India and others have pointed out, palm oil, rubber, and cotton production also play a central role in supporting the livelihoods of millions of poor people. Leaving aside the issues of definition, there are serious political questions to be raised over the type of arrangements proposed by Harbinson. Developing countries would be required to submit their list of Strategic Products to the WTO, where they could be subject to protracted—and costly—legal challenge. For many of the poorest countries this prospect would act as a hidden constraint, closing down choices in public policy.

Country Coverage

Realpolitik at the WTO dictates that the effectiveness of special and differential treatment will be inversely related to country coverage. This is for an obvious reason: namely, industrial countries are unlikely to accept far-reaching special provisions in countries they see as major markets. The logic of this starting point has prompted some to advocate a tradeoff, with higher-income and large-population developing countries such as India and China accepting the need for weaker protection in the interests of securing stronger protection in poorer countries (Ruffer and Vergano 2002). That logic poses major risks in the areas of agricultural trade and food security.

The problem can be illustrated by reference to the LDC and NFDCs group. Low per capita income and a high level of dependence on imports can cause problems of food insecurity, but they are not necessarily related. For much of sub-Saharan Africa, low incomes and import dependence are readily identifiable sources of food insecurity. By contrast, Brazil is a major food exporter, but it has an incidence of malnutrition of around 10 percent, with around 16 million people affected. As in other parts of Latin America, agricultural exports and relatively high average income levels (by comparison with LDCs) obscure high levels of rural poverty.

Viewed from a food security perspective, the grounds for excluding large countries from special and differential treatment are weak. India is not categorized as an LDC and the country is not a major food importer. But it is estimated that one-fifth of its population—194 million people—are malnourished. The majority of the poor continue to live in rural areas. At first sight, China may appear to present a weaker case for special and differential treatment on food security grounds. The economy has grown fivefold over the past two decades, with average incomes quadrupling. Inequality has increased almost as dramatically as average incomes, with the Gini coefficient rising from 34 to 41 between 1990 and 1999. One reason for the rise in inequality has been the relatively slow growth of average income in poor rural areas. Around 100 million people, or one-quarter of the country's rural population, still live on less than \$1 a day (Chen and Wang 2001, table A6). Similarly, the grounds for excluding China on the basis of population size are weak: for all the success achieved in reducing poverty, it is estimated that 100 million people in rural areas of China continue to live on less than \$1 a day.

As these cases demonstrate, there are no simple criteria for identifying countries that face major public policy problems in dealing with food insecurity. If absolute numbers in rural poverty is one factor, then India and China have claims that are more pressing than those of Africa: between them they account for over one-third of rural populations living on less than \$1 a day. High levels of rural poverty and malnutrition might also credibly be used to make a case for Brazil enjoying special and differential treatment rights. Some commentators have not unreasonably suggested adding average calorie supply to the criteria under consideration (Stevens 2002). However, even here there are problems: most obviously, averages disguise inequalities between groups and regions. Ultimately, the critical policy requirement is that each developing country retains sufficient flexibility to develop and implement

food security policies decided at a national level. The Africa Group has called for all developing countries to retain the right to “modify their commitments if this is found necessary to protect the public interest in ensuring food security and alleviating rural poverty” (WTO 2002a, p. 13; 2003b). This starting point implies a departure from the wider multilateral principles of the WTO, in that it would allow developing countries a greater level of policy sovereignty. But the specific issues raised in the context of agricultural trade and food security merit rebalancing in this direction.

Ways Ahead

Widespread malnutrition and vulnerability to food insecurity make special and differential treatment in agriculture vital to poverty reduction efforts. Although trade policy is only one factor involved, it is nonetheless important. Unlike farmers in rich countries, poor farmers in developing countries have no access to safety nets, insurance systems, or welfare arrangements capable of protecting them against price declines caused by import dumping. Even temporary external shocks can have significant and long-lasting effects on the poor. Exposure to highly distorted and unstable markets has the potential to wreak havoc, raising fundamental questions about current approaches to import liberalization.

Several developing countries have proposed the idea of a “development box” or “food security box” to encompass special and differential treatment provisions in agricultural trade (WTO 2002b; WTO 2002c). Specific proposals vary, but include the following elements:

- **A special safeguard (SSG).** Under Article 5 of the AoA, industrialized countries retained the right to use a special safeguard (SSG) provision in the event of a surge in agricultural imports. In contrast with the WTO’s general safeguard provision, the SSG can be invoked without proof of injury or causal links (for example, between the injury claimed and import prices) to domestic producers. Two conditions are set for intervention under the SSG: a surge in import volume or a fall in import prices. Volume-based and price-based triggers are defined in the AoA (Ruffer and Vergano 2002, p. 7). Few developing countries have recourse to the SSG—and they have made limited use of general safeguard provisions. Only seven of these countries sought to initiate WTO safeguard measures between 1995 and 2001, largely because of the cost and complexity of the processes involved (Konandreas 2002).

Because the SSG is automatic, it could provide developing countries with the flexibility to address the threat posed by cheap, often heavily subsidized imports, and to meet national food security goals. Each country could define trigger thresholds in its WTO schedule on the basis of national assessments for crops regarded as vital to rural livelihoods. The Government of India has created a structure for doing this, establishing strategic food security committees to market price trends in over 300 product groups (Gulati and Narayan 2002).

- **A positive list approach.** Under the strategic products approach, developing countries would be required to identify a group of products—a negative list—for special treatment. This approach should be turned on its head. Under a positive list

approach, developing countries would identify which products would be subject to liberalization, enabling them to exclude crops on food security grounds.

- **Renegotiating tariff bindings.** Developing countries should be allowed to renegotiate tariff bindings on products identified as important to food security, taking into account problems faced with import surges. This would include staple food crops as well as commercial cash crops produced by significant numbers of poor producers.
- **Alignment of WTO commitments with national poverty reduction plans.** WTO commitments should reflect the priorities and public policy objectives set out in national poverty reduction plans. In low-income countries, agricultural liberalization commitments should be subject to an impact assessment to capture possible implications for the poor.

Conclusion

The Doha WTO round provides an important opportunity to address longstanding inequities in agricultural trade. Viewed in a broad public policy context, this has the potential to be a win-win scenario. Current agricultural policies are bad not just for developing countries, but also for the majority of producers, consumers, and taxpayers in the United States and the European Union. There are also high environmental costs associated with current practices. The central reform dilemma is well known. The losers from existing policies are politically unorganized, geographically diverse, and—in the case of small farmers in developing countries—lacking in voice. The winners are small groups of producers and agribusiness interests that combine financial power with high levels of political organization. In the case of the European Union, differences between countries add a further layer of complexity.

Ultimately, success—or failure—at Doha will depend on the extent to which Northern governments act on their rhetorical commitments to a new pattern of globalization. The most immediately pressing issue is to make progress toward a WTO prohibition on export dumping. Such a prohibition will require far more stringent disciplines in other areas of subsidization, including those currently defined as decoupled. Aligning domestic policies with such a prohibition would imply a fundamental shift in the direction of farm policy reform, both in the European Union and the United States, with a far clearer focus on strategies for reducing surplus production, while redirecting support toward more clearly defined social and environmental policy goals.

Notes

This paper benefited from discussions with several people. Special thanks are due to Penny Fowler of Oxfam, especially for her insights into issues raised by Common Agricultural Policy reform. Discussions with Jesus Anton, Celine Charveriat, Gonzalo Fanjul, Patrick Messerlin, and Nicholas Stern have helped to inform the ideas set out in the paper. Two anonymous referees provided detailed and helpful comments on an earlier draft. None of the above share responsibility for errors of commission or omission in the final paper.

1. A billion is 1,000 million.
2. In the United States, the percentage of disposable income allocated to food has fallen from 18 percent in 1960 to around 10 percent today (ERS 2001).
3. In Britain farming accounts for only 0.9 percent of GDP, compared with 8 percent for the food sector broadly defined (Policy Commission on the Future of Farming and Food 2002). In the United States, farming accounts for a similar share of GDP and employment, but the agro-industrial system—spanning inputs, processing, manufacturing, and exporting—contributes an estimated 16 percent of GDP (USDA 2002).
4. The Producer Support Estimate (PSE) is a narrower indicator than the Total support Estimate (TSE). It measures the monetary value of transfers from taxpayers and consumers at the farm-gate level.
5. The AMS is measured as the total value in nominal terms of (nonexempt) domestic support, including budget outlays and consumer–producer transfers. The key provision is a distinction between Green Box policies deemed to be minimally trade distorting and those that distort trade, which are categorized as Amber Box and Blue Box. Green Box payments are not counted in the AMS. The Blue Box reflects the provisions of the Blair House agreement between the European Union and the United States. It encompasses support linked to production, but under programs that limit supply. Blue Box payments are included in the AMS, but unlike Amber Box payments they are not subject to reduction obligations.
6. The Lorenz curve represents the actual distribution from which the Gini coefficient is derived. It ranks incomes (or, in this case, agricultural subsidies) in ascending order and plots the cumulative percentage of total income against population share.
7. The data for distribution of direct income payments are taken from a European Commission statement entitled “Commission Publishes Indicative Figures on the Distribution of Direct Farm Aid,” 1 October 2002 (MEMO/02/198).
8. General equilibrium models seek to capture the economywide effects of liberalization, including cross-sectoral linkages within the agricultural sector. Partial equilibrium models differ in that they focus on supply and demand functions for individual commodity groups, while simplifying assumptions about spillover effects across commodity groups. For a description of general equilibrium modeling, see Diao et al. (2003).
9. Gallezot (2003) finds an average agriculture tariff in the European Union of around 10 percent, taking into account trade preferences.
10. The EBA liberalized 919 product lines, mostly for agricultural goods covered under the CAP. Least developed countries exported to the European Union in only 80 of these product lines, representing 0.5 percent of their total exports to the region (Brenton 2003).
11. The 2003 Mexican agricultural budget allocation was 40.1 billion pesos (about \$4 billion) (SAGARPA 2003).
12. The United States actually notified \$7.4 billion in *de minimis* payments for the marketing year 1998, which is the most recent year reported to the WTO.
13. This was because most developing countries did not apply tariffs to import barriers.
14. The “loan rate” is effectively a minimum price. It is so called because it represents the collateral value of a crop determined by government against which producers can secure a loan. If the market price falls below the loan rate, the government takes the crop in repayment for the loan.
15. The target price is used as a reference point for countercyclical payments. It defines the income level that market intervention and other support measures are aimed at achieving. Countercyclical payments come into operation if the market price falls below the target price (minus the rate set for direct payments).

16. The simulation assumes a producer growing 100 acres of maize.
17. In the late 1990s the direct payment rate was 54.3 per ton, rising to 63 per ton for 2001–2.
18. Producers with farms above a certain size are required to remove part of their land from cultivation in order to qualify for direct payments.
19. In fiscal year 2002 Ethiopia received \$42.9 million in food aid while Peru received \$40.5 million (USDA/FAS 2002c, table 1).
20. The value of agricultural production reported to the WTO in 1999 was \$184.7 billion, creating an entitlement of \$9.2 billion in *de minimis* payments (WTO 2003a, p. 38).
21. Under the Harbinson proposal of March 2003, a coefficient of 1.3 was proposed for the cut on tariffs for processed products (with 1 for raw materials).

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Annex. Dumping Case Studies

CASE STUDY 1

The "Level Playing Field" in Cotton: U.S. Subsidies and Africa

Cotton is a vital source of foreign exchange for some of the world's poorest countries—and a crucial source of income for poor farmers in West Africa. It is also one of the most heavily subsidized crops in the United States. Subsidies in the United States translate into poverty in Africa.

In 2001 world cotton prices fell to 39 cents/pound, their lowest levels since the Great Depression. Several factors contributed. Worldwide recession caused stagnation in demand, China reduced government stocks, and the United States—the world's largest exporter—posted record levels of production and exports. The ability of the United States to expand output was a direct consequence of government assistance.

America's 25,000 cotton farmers are first among equals in the harvesting of subsidies. Government spending on cotton reached \$3.8 billion in the 2000–1 marketing year—roughly equivalent to the market value of output. Cotton producers receive the highest average payment per capita (\$55,859) of any crop specialization. In 2001–2, every acre of cotton farmland was worth \$230 in subsidy, compared with \$40–50 for wheat and maize. Almost three-quarters of total subsidy payments went to the largest 10 percent of farms; the top 1 percent collected one-quarter of the total. Just 10 commercial farms received \$17 million in cotton subsidies among them.

Because the United States is a major exporter, accounting for 40 percent of the world market, its domestic subsidies depress world prices. The International Cot-

ton Advisory Committee (ICAC) estimates that America's cotton support policies reduced world prices by 26 percent in 2001.

This price effect has important implications for the 10–11 million cotton-growing households in West Africa. Cotton is a major source of foreign exchange, household income, and employment in the region. The world price decline associated with U.S. subsidies cost West Africa around \$191 million in lost foreign exchange in 2001. Falling cotton prices also exacerbated longstanding debt problems: Burkina Faso lost more (\$28 million) as a result of cotton subsidies than it gained in debt relief.

Deteriorating world prices also have implications for poverty at a household level. West African cotton-producing countries are among the poorest in the world, with average incomes ranging between \$240 to \$380 in countries such as Benin, Burkina Faso, and Mali. Over half of the population lives below the poverty line. Child death rates are exceptionally high. Income from cotton plays a critical role in the livelihoods of poor farmers and agricultural laborers. In Benin, which lost an estimated \$33 million in foreign exchange earnings, cotton accounts for around one-third of the value of agricultural output and a similar share of employment.

Using household income data for cotton producers, research by the International Food Policy Research Institute (IFPRI) has estimated that a price comparable to that associated with U.S. subsidies results in:

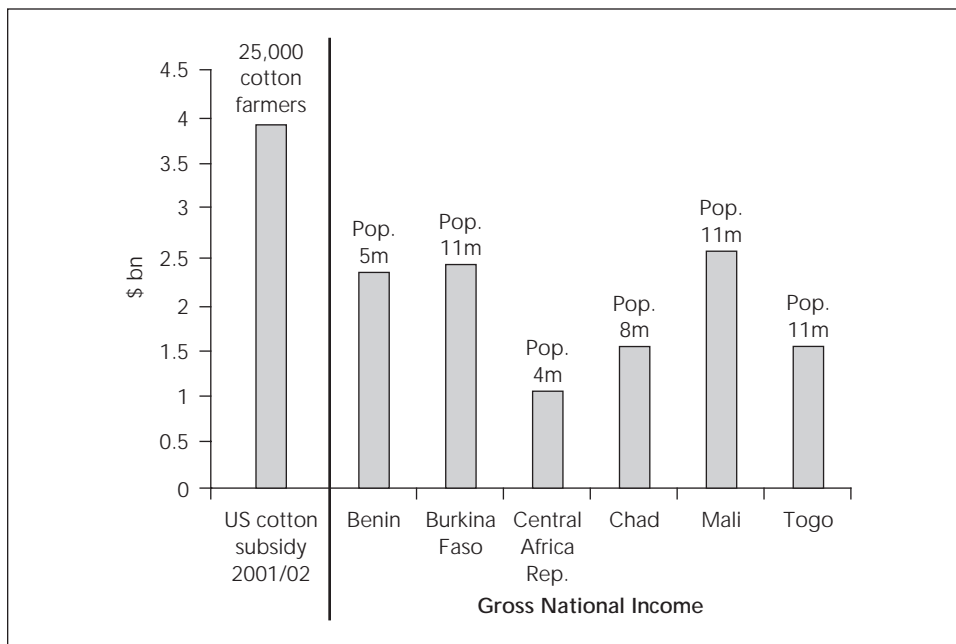
- a 10 percent decline in average income;
- a 12 percent increase in poverty among cotton farmers and a 4 percent increase in national poverty, resulting in some 250,000 people falling below the poverty line; and
- an 11 percent increase in the depth of poverty.

U.S. cotton subsidies starkly illustrate some of the double standards governing agricultural trade relations between rich and poor countries. West Africa is one of the world's most efficient cotton-producing regions. The IMF estimates that the sector can operate profitably at world price levels of around 50 cents/pound. Few producers in the United States could compete at this price. Indeed, the USDA estimates average production costs at 75 cents/pound. Over the past decade, cotton has been an important success story in West Africa: output has almost doubled and exports have grown rapidly. While serious problems remain, notably in relation to the position of farmers in more marginal areas, the evidence strongly suggests that cotton cultivation has made an important contribution to poverty reduction. That contribution is being weakened by the price-depressing effects of U.S. subsidies.

Political leaders in the United States frequently advise their African counterparts to embrace free market programs. They also espouse the virtues of a level playing field in agriculture. Yet the subsidies provided to American cotton farmers represented over 90 percent of the value of output in 2001—a level that the IMF and its major shareholders would regard as intolerable in an African context. Expressed differently, U.S. cotton subsidies exceeded the total national income of major cotton-producing countries such as Burkina Faso and Mali. Viewed from Africa, the level playing field in cotton appears to slope downward from the U.S. cotton belt (figure 20).

FIGURE 20.

The “Level Playing Field” in Cotton: U.S. Subsidies and National Incomes for Selected West African Countries in 2000 (\$ billions)



Sources: Badiane 2002; McElroy 2002; Minot and Daniels 2002; Oxfam 2002a; USDA 2002c.

CASE STUDY 2.

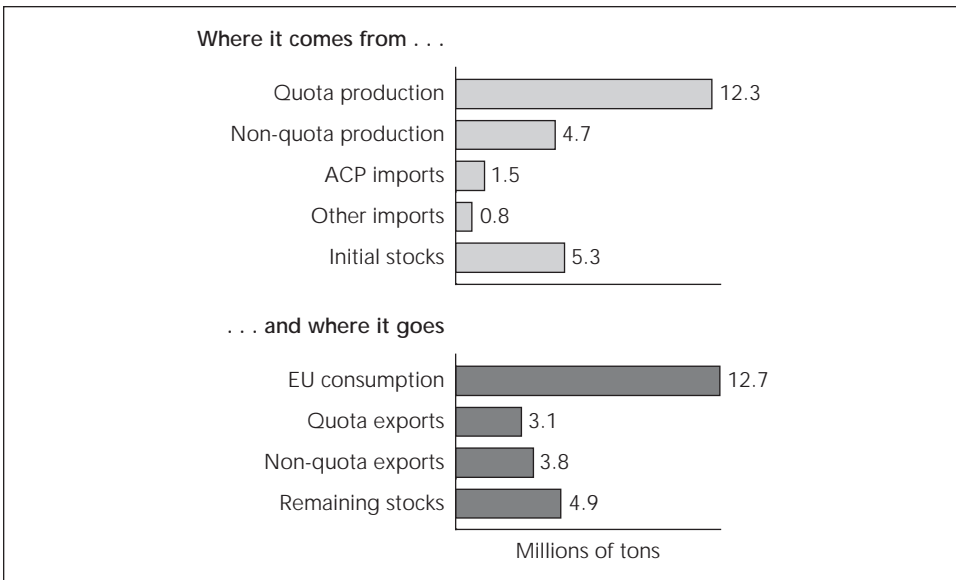
The Great EU Sugar Scam

EU sugar policies illustrate the costs associated with agricultural support programs in industrialized countries—and the problems raised by preferential trade systems. High guaranteed prices, sustained through import restrictions, mean that overproduction and subsidized export disposal are built-in features of the CAP sugar regime. Some countries benefit from access to that regime, receiving prices linked to those on the EU market for a fixed quota. But the aggregate costs to developing countries resulting from EU import restrictions and the price-depressing effects of exports outweigh the benefits.

The European Union is a high-cost sugar producer. Average costs of production amount to around 25 cents/pound, which is more than four times the level for Brazil (the world’s lowest cost producer) and efficient producers in southern Africa. Despite this disadvantage, Europe is the world’s largest exporter of white sugar. In 2001–3, exports averaged around 6 million tons a year, accounting for 14 percent of the global market (and 40 percent of the white sugar market).

How does the European Union maintain its global market position despite the absence of any comparative advantage in sugar? Through a complex system of price support. Guaranteed prices are paid for a quota of around 14 million tons, which is around 1.5 million tons more than consumption. These prices are sustained through

FIGURE 21.
The European Union Sugar Balance, 2000–1



Source: Oxfam 2004.

import tariffs insulating the EU market from global competition. The tariffs were equivalent to 324 percent in 2004. Under the Sugar Protocol, ACP countries enjoy a quota of around 1.6 million tons and LDCs have a far smaller quota—around 100,000 tons in 2004—under the terms of the Everything But Arms initiative. In addition to the supply of domestic and external quota sugar, the European Union also produces a large amount of non-quota sugar, averaging 2.7 million tons for 2000–3. Non-quota production, which has to be exported or stored, is made possible by the hefty subsidies on quota sugar. The latter effectively cross-subsidize exports of non-quota sugar.

European consumers bear the brunt of financing the sugar regime: they pay three times world market prices. Direct export subsidies—amounting to €1.3 billion in 2003—are financed by transfers from taxpayers and by a small tax on the processing industry. The subsidies are paid to dispose of the surplus of quota sugar, and to export an amount equivalent to ACP imports.

The CAP sugar regime supports some politically powerful winners. Sugar-processing companies lead the league table of vested interests capturing the benefits of subsidies. The quota system creates what amount to national marketing monopolies. It also supports extraordinarily high profit margins, amount to around 25 percent for British Sugar in 2003. The largest share of export subsidies are captured by six processors, headed in terms of the size of subsidy transfer by Beghin Say, Sudzucker, and Tate and Lyle. Large-scale farmers also benefit from the intervention price: sugar beet is one of the most profitable crops grown in the European Union and a major source of subsidies for big farms.

Developing countries figure as winners and losers in the EU sugar balance sheet. The European Union itself points to the Sugar Protocol with the ACP as a model for poverty-focused trade preferences. However, just three ACP countries—Fiji, Guyana, and Mauritius—account for over half of the quota. The LDCs, a far poorer group, account for only 4 percent. As a mechanism for transferring resources, the Sugar Protocol suffers from some fundamental defects. Because the European Union insists on exporting an amount equivalent to ACP imports, every €1 delivered through the Sugar protocol costs EU taxpayers €2 in export subsidies. The negative effects of the sugar regime are transmitted through a variety of channels.

- **Lower world prices.** It has been estimated that the CAP sugar regime lowers world prices by 20–23 percent, lowering the value of exports from countries such as Brazil and Thailand on world markets (Borrel and Hubbard 2000). The implied foreign exchange losses range from \$60 million for exporters such as India and South Africa to \$151 million for Thailand and \$494 million for Brazil.
- **Reduced market shares.** Subsidized exports from the European Union keep low-cost sugar-producing countries out of valuable markets. For example, in 2002 Europe exported 831,000 tons of white sugar to Algeria, reducing market opportunities for Thailand and Brazil. Exporters such as India, South Africa, and Mozambique also face competition from the European Union in regional markets.
- **Restricted market access.** Under the EBA, countries such as Mozambique and Ethiopia have been granted quotas in the EU market. However, the total EBA quota currently amounts to 1 percent of EU consumption. Mozambique and Ethiopia have the right to export an amount equivalent to about one day's worth of consumption. Were Mozambique allowed to export its entire sugar surplus to the European Union on current terms, it would boost export earnings by \$38 million.

The impending reform of the CAP sugar regime poses considerable challenges. In the short-to-medium term, full liberalization would inflict severe damage on LDCs and ACP countries: they would suffer from increased competition—notably from Brazil—and from lower prices. An alternative reform scenario (outlined in Oxfam 2004) envisages an immediate end to the direct and indirect subsidization of exports through deep quota cuts, allied to a redistribution of quotas from EU growers and processors to their LDC counterparts. Additional compensation and aid measures would be needed to provide adjustment support in ACP countries.



Migration Flows: Political Economy of Migration and the Empirical Challenges

KEVIN H. O'ROURKE AND RICHARD SINNOTT

Immigration barriers began being erected in the New World in the late nineteenth century, motivated by fears that the immigration of unskilled workers would increase inequality. Controlling for economic factors, there appears to have been little independent role for factors such as racism or xenophobia in driving the retreat from liberal migration policies. A statistical analysis of individual voter attitudes toward immigration in the late twentieth century leads to somewhat different conclusions: nationalism is strongly associated with more hostile attitudes toward immigrants. Heckscher-Ohlin theory and the Borjas theory of immigrant self-selection also help explain individual voter attitudes.

Despite the best efforts of the academic economics community and some politicians, ordinary people remain sceptical about the benefits of the international economy. Although the “anticapitalism” or “antiglobalization” protest movement may not be representative of the population at large, nonetheless many remain opposed to the free international movement of people, commodities, and capital. Table 1 reports the results of a major international survey (described in the fourth section of this paper) carried out in 24 countries (in the OECD, Central and Eastern Europe, and the Philippines) in 1995. Of the many questions that respondents were asked to answer, two directly bear on their attitudes toward globalization. The first asked to what extent they agreed with the statement that their country “should limit the import of foreign products in order to protect its national economy”; responses were ordered from 1 (strongly disagree) to 5 (strongly agree). In addition, respondents were asked if the number of immigrants to their economy should be increased a lot (1), a little (2),

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Annual World Bank Conference on Development Economics—Europe 2004

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remain the same (3), be reduced a little (4), or reduced a lot (5). Table 1 reports the mean response to these questions in each country: a score greater than 3 indicates that on average respondents were leaning toward greater restriction, rather than freer trade or immigration. In every country in the sample, respondents on average favored lowering the number of immigrants; in every country in the sample bar 2 (the Netherlands and Japan) respondents on average favored limiting imports.¹

History suggests that we need to understand what drives these anxieties, since globalization is not irreversible: rather, it has periodically been supplanted by the forces of disintegration. Sometimes, these forces have been unleashed by war; at other times, by world depression; and sometimes they have arisen as an endogenous political response to the distributional consequences of globalization itself

TABLE 1.
Summary Statistics, Selected Variables

| Country | Protect | | Anti-immigrant | |
|---------------|---------|-----------|----------------|-----------|
| | Mean | Std. Dev. | Mean | Std. Dev. |
| Australia | 3.997 | 0.988 | 3.768 | 1.042 |
| W. Germany | 3.083 | 1.232 | 4.226 | 0.910 |
| E. Germany | 3.563 | 1.189 | 4.338 | 0.871 |
| Britain | 3.723 | 1.004 | 4.052 | 0.962 |
| United States | 3.707 | 1.016 | 3.873 | 1.044 |
| Austria | 3.873 | 1.163 | 3.804 | 0.933 |
| Hungary | 4.047 | 1.075 | 4.402 | 0.817 |
| Italy | 3.571 | 1.216 | 4.151 | 0.900 |
| Ireland | 3.65 | 1.128 | 3.071 | 0.829 |
| Netherlands | 2.912 | 0.992 | 3.826 | 0.924 |
| Norway | 3.144 | 1.038 | 3.847 | 0.982 |
| Sweden | 3.228 | 1.081 | 3.961 | 1.017 |
| Czech Rep. | 3.415 | 1.294 | 4.158 | 0.880 |
| Slovenia | 3.465 | 1.174 | 3.939 | 0.868 |
| Poland | 3.787 | 1.083 | 3.888 | 1.060 |
| Bulgaria | 4.190 | 1.09 | 4.219 | 0.990 |
| Russia | 3.670 | 1.282 | 3.717 | 0.971 |
| New Zealand | 3.406 | 1.147 | 3.742 | 1.053 |
| Canada | 3.264 | 1.135 | 3.317 | 1.135 |
| Philippines | 3.624 | 0.918 | 3.796 | 1.102 |
| Japan | 2.919 | 1.282 | 3.391 | 1.008 |
| Spain | 3.813 | 0.906 | 3.401 | 0.813 |
| Latvia | 4.042 | 1.18 | 4.182 | 0.884 |
| Slovakia | 3.488 | 1.273 | 4.004 | 0.911 |

Source: Data from ISSP National Identity Survey 1995.

(O'Rourke and Williamson 1999). O'Rourke (1997) shows how the different responses of European countries to the influx of cheap grain at the end of the nineteenth century can be understood in terms of the different distributional impact that the grain invasion had in each; Timmer and Williamson (1998) show that the best predictor of countries' decisions to tighten immigration restrictions in the late nineteenth century is the relative income of unskilled workers. In turn, the rising inequality that provoked a gradual restriction of immigration into the New World was largely a result of the immigration of unskilled workers (Williamson 1997; Hatton and Williamson 1998).

Might history repeat itself, and might globalization once again go into reverse, even in the absence of a major world conflict? In order to come to grips with this question, we need to understand the underlying causes of voters' preferences regarding globalization. This paper examines those preferences, focusing on just one dimension of globalization: international migration. While there are many variables that can potentially determine attitudes toward migration, one central focus of this paper will be the extent to which these preferences are driven by purely economic considerations. Do citizens look to their pocketbooks when deciding where they stand on immigration, or do such noneconomic factors as nationalism or chauvinism also matter? And if economic factors do play a role in determining preferences, what economic models are consistent with those preferences? In particular, to what extent do the theoretical insights of the workhorse Heckscher-Ohlin (HO) model of international trade help us in understanding how individuals feel about immigration?²

In previous work (O'Rourke and Sinnott 2001) we have exploited international survey evidence in order to explain the determinants of individual preferences regarding trade policy. The major conclusions there were twofold. First, noneconomic factors such as nationalism and chauvinism do indeed play a major role in determining attitudes, with nationalism, and especially chauvinism, having a major positive effect on protectionist attitudes. Second, individual preferences relate to individual skill levels in a manner fully consistent with HO theory. That is, in rich countries being high-skilled is negatively correlated with protectionist attitudes, other things being equal; but this negative correlation declines in poorer countries, and is actually replaced with a positive (if small, and statistically insignificant) correlation in the poorest countries in the sample. Mayda and Rodrik (2001) independently arrived at very similar conclusions, using the same dataset.

The HO model yields very clear predictions about the links between skill and attitudes toward imports, since trade in the HO model is driven by comparative advantage. By contrast, immigration is driven by absolute advantage (that is, absolute factor price differentials, namely wage gaps) rather than by comparative advantage (that is, relative factor prices, such as the ratio of skilled to unskilled wages). The second section of the paper will therefore review what trade theory has to say about the determinants of attitudes toward both trade and migration, as well as the relationship between those attitudes.

The third section will introduce a broad historical perspective on the matter, by reviewing the late nineteenth century evidence that suggests that rising immigration

barriers in the New World were driven by economic factors rather than by racism or xenophobia. In particular, immigration restrictions were driven by rising inequality, which was itself a by-product of the mass migration of unskilled workers from Europe to the New World. The fact that the mass migrations of the late nineteenth century largely involved unskilled workers is thus crucial to the argument. The section will then go on to discuss how the migration environment is now different from that pertaining 100 years ago, in terms both of the size and nature of the migration flows, and in terms of the types of migration policies that governments are adopting.

The fifth section then introduces the survey data that are used in the paper. The following section estimates a series of equations relating individual attitudes toward immigration in 24 countries to individual level characteristics, including skills, nationalism and chauvinism, age and gender, place of birth, geographical mobility, attitudes toward trade, and other factors. The final section concludes.

Theory

Standard HO trade theory is quite clear in its predictions regarding who should benefit and who should lose from free trade in commodities. Imagine a two-factor world in which countries are distinguished only by their relative endowments of skilled and unskilled workers. The relative wages of skilled workers will be lower, other things being equal, in skill-abundant countries (which we will denote by R , and refer to as *rich countries*) than in unskilled labor abundant countries (denoted by P , and referred to as *poor countries*): we have $(w_S/w_U)^R < (w_S/w_U)^P$. It is this inequality that drives comparative advantage: the rich countries will export skill-intensive goods, while the poor countries will export unskilled labor-intensive goods. The result is then relative factor price convergence (or, in the limit, factor price equalization): when countries move toward freer trade, the relative price of skilled labor rises in rich countries and falls in poor countries. Moreover, the abundant factor gains in real terms in all countries, while the scarce factor loses. Thus the skilled should favor free trade in rich countries, while they should favor protection in poor countries; the unskilled in rich countries should favor protection, while the unskilled in poor countries should support free trade.

In a pure HO world in which technology is identical across countries, and in which countries are distinguished only by their relative endowments of skilled and unskilled labor, it is again possible to make unambiguous predictions about who should favor immigration and who should not. This is the case, even though international migration is not driven by comparative advantage and relative factor prices, but by absolute advantage and by absolute factor price differentials. In a pure HO world, the real wages of skilled workers will be higher in poor countries (where skilled workers are scarce) than in rich countries (where they are abundant), while unskilled wages will be higher in rich countries than in poor countries: we have (in real terms) $w_S^P > w_S^R$, but $w_U^R > w_U^P$. Thus, we should observe skilled workers migrating from rich to poor countries, and unskilled workers migrating from poor

to rich countries. Immigration will hurt skilled workers in poor countries, but benefit the unskilled there; in poor countries the unskilled should favor immigration, while skilled workers should oppose it. The situation is the reverse in rich countries: immigration will hurt the unskilled, but benefit skilled workers. Thus skilled workers should be pro-immigration, while the unskilled should oppose it.

Note that in such a pure two-country, two-factor HO world, in which countries are distinguished solely by their relative factor endowments, agents are consistent in their attitudes toward globalization. That is, in rich countries skilled workers favor both trade and immigration, while unskilled workers are protectionist and anti-immigration. In poor countries, it is the unskilled who are liberal in their attitudes toward both trade and immigration, while the skilled favor both protection and immigration restrictions. This symmetry reflects the fact that in a pure two-factor HO world in which technology is identical across countries, trade and factor flows are substitutes: they have identical effects on factor prices (that is, they both lead to relative and absolute factor price convergence). Thus the more you have of one dimension of globalization, the less incentive there will be for the other dimension to take place. In such a world, scarce factors lose as a result of either trade or immigration, while abundant factors gain from either. One immediate political consequence of the fact that trade and migration are substitutes for each other is that agents who are protectionist should also be anti-immigration: both trade and immigration have to be simultaneously restricted, since either phenomenon will hurt the scarce factor. Protection without immigration restrictions will not work, since protection without immigration restrictions will simply lead to more immigration; immigration barriers without protection will not work, since immigration barriers on their own will simply lead to more trade (Mundell 1957).

Things get a lot more complicated when we admit the possibility that technology may differ across countries, or that there are more than two factors of production. First, it is no longer the case that trade and factor flows are necessarily substitutes: they could instead be complements. For example, Markusen (1983) shows that technological differences between countries can lead to trade and factor mobility being complements; while in the context of a three-factor model such as the specific factors model, trade and factor mobility can be either substitutes or complements (O'Rourke and Williamson 1999, ch. 13). Second, if technology is better in the rich country, or if the rich country is better endowed with some third factor of production than the poor country, then it no longer follows from an inequality such as $(w_S/w_{US})^R < (w_S/w_{US})^P$ that skilled workers will migrate from rich to poor countries: it is quite possible that $(w_S/w_{US})^R < (w_S/w_{US})^P$, but that (in real terms) $w_S^R > w_S^P$. In this case, skilled workers will move from poor (unskilled labor-abundant) countries to rich (skill-abundant) countries: unskilled workers will move in the same direction as skilled workers. This is, of course, what happens in the real world, suggesting that richer countries do indeed enjoy superior technology to poor countries, and that endowments alone cannot explain differences in income, or for that matter trade patterns and factor flows. The issue of whether skilled or unskilled workers should be more anti-immigration in rich countries thus becomes unclear. Presumably it depends on whether immigra-

tion predominantly involves skilled or unskilled workers; but which is true is not immediately obvious.³

In fact, there is a large theoretical literature that asks whether migrants are more likely to be skilled or unskilled, but this literature tends not to be located within standard HO trade models. For example, Katz and Stark (1984) argue that asymmetric information can lead to migration flows disproportionately involving unskilled workers, since employers in rich countries may not be able correctly to discern the skill levels of potential migrants, although the equilibrium outcome can change if various devices reinstating informational symmetry are employed (Katz and Stark 1987). An alternative theory is provided by Borjas (1987), who adapts Roy's (1951) model of occupational self-selection to the issue of migration. The conclusion of the analysis is that there will be positive self-selection of migrants if (1) the correlation between the earnings that they receive in the home and destination countries is sufficiently high, and (2) if income is more dispersed in the destination country than in the home country. On the other hand, there will be negative self-selection if (1) the correlation between the earnings that they receive in the home and destination countries is sufficiently high, and (2) if income is less dispersed in the destination country than in the home country.

O'Rourke and Sinnott (2001) stress that it is important, when using survey data to test HO trade theory, to use data for more than one country. For example, previous findings (for example, Scheve and Slaughter 2001) that the unskilled are more protectionist than the skilled in the United States are not on their own evidence in favor of the HO view, since in principle it might be the case that the unskilled everywhere were protectionist (due, for example, to their being less familiar with the lessons of economic theory). This would be completely at variance with HO theory. It is the variation in the correlation between skills and attitudes across countries that is crucial in testing the theory. In this respect, it seems easier to empirically test the Borjas theory of migrant self-selection than other theories stressing asymmetric information. To test the Borjas theory, we need to see how the correlation between skills and attitudes toward immigration varies across countries, and in particular to see if this correlation varies systematically with domestic income distribution.⁴ Data on income distribution are more easily available across countries than information on the relative importance of informational asymmetries across countries, and so it is the Borjas theory (along with HO theory) that is the focus of this paper.

History

Late nineteenth century labor markets were clearly more globalized than today. Although the barriers to immigration that are the focus of this section were being erected by the end of the period, by and large the late nineteenth century stands out as a relatively liberal interlude in terms of migration policy, and falling transport costs eventually led to huge migration flows (roughly 60 million Europeans emigrated to the temperate and land-abundant regions of the New World between 1820 and 1914).

Late Nineteenth-Century Migration in Comparative Context

At the beginning of the century, transport costs remained high, free labor flows were still small, and intercontinental migration was dominated by slavery. During the 1820s, free immigration into the Americas averaged only 15,380 per annum, compared with a slave inflow of 60,250 per annum. By the 1840s, the free inflow had increased to 178,530 per annum (and the slave inflow had declined to 44,510 per annum: Chiswick and Hatton 2003, p. 68, table 2.1), although it was not until the 1880s that the cumulative European migration exceeded that of the African (Eltis 1983, p. 255). In the first three decades after 1846, European intercontinental emigration averaged around 300,000 per annum; the numbers more than doubled in the next two decades, and rose to more than a million per annum after 1900 (Chiswick and Hatton 2003, p. 69, figure 2.1). There were also significant migrations within Europe and the New World, as well as substantial intercontinental emigration from Asia.

One feature of these nineteenth century migrations that deserves to be noted is that they were ultimately self-limiting. That is, in those countries where the process had time to run its course before the intervention of the World War I, emigration followed an inverse U-shape, first rising and then declining (Hatton and Williamson 1998). Demographic forces were an important cause of the upswing, with path-dependence playing a strong reinforcing role; but eventually emigration led to international wage-convergence, and this led to emigration rates falling in countries such as Ireland.

As was the case with trade and capital flows, this dimension of globalization went into reverse after 1914. European emigration had averaged over 1.2 million per annum in the decade before the war, but was less than half that between 1916 and 1930; during the 1930s it was lower than it had been in the late 1840s (Chiswick and Hatton 2003, p. 69, figure 2.1). Decline was followed by recovery: gross immigration into the United States was 4.1 million during the 1920s, 0.5 million in the 1930s, 1 million in the 1940s, 2.5 million in the 1950s, 3.3 million in the 1960s, 4.5 million in the 1970s, and 7.3 million in the 1980s (Chiswick and Hatton 2003, p. 76, table 2.2). However, this recovery is not yet complete. The world stock of migrants was 2.3 percent of the total world population in both 1965 and 1990. Within Western Europe, the share of migrants in the total population increased from 3.6 percent to 6.1 percent over the same period, while within North America, the migrant share increased from 6 percent to 8.6 percent (Zlotnik 1999). By contrast, the foreign born accounted for 14.7 percent of the population of the United States and 22 percent of the Canadian population in 1911. Similarly, 1990s immigration rates into countries such as the United States (roughly 30 per thousand), Canada (70 to 80 per thousand in the early 1990s), and Germany (roughly 80 per thousand in the first half of the decade, and 50 per thousand thereafter), while substantial, were much smaller than those of the late nineteenth and early twentieth centuries: in the first decade of the twentieth century these were 167.6 in Canada, 118.4 in Cuba, 102 in the United States, and 291.8 in Argentina (O'Rourke 2002).

Immigration Restrictions in the Late Nineteenth Century

Given the unprecedented nature of late nineteenth century migration flows, it would have been surprising if there had been absolutely no political response: especially from the 1890s or so, when the U.S. frontier was officially declared closed and states were no longer able to cope with expanding populations by increasing the amount of land under cultivation. And indeed, there was a gradual closing of New World labor markets to would-be immigrants from the 1880s or so (Timmer and Williamson 1998; O'Rourke and Williamson 1999, ch. 10), manifested in such legislation as head taxes, Chinese exclusion acts, the definition of various categories of persons as "excludable," and so on. What explains this international trend toward excluding immigrants, which was common across the "regions of recent settlement"? Was increased racism to blame; or a constant level of racism, combined with a shift in the ethnic composition of the migrants (fewer north-western Europeans, more southern and eastern Europeans)? Or were the roots of this backlash economic?

In order to understand the political economy of late nineteenth century immigration restriction, it is necessary to first be clear about who the migrants were (Hatton and Williamson 1998, chs. 7, 8; O'Rourke and Williamson 1999, ch. 7). . . . Late nineteenth century migrants were typically young adults—for example, 76 percent of immigrants entering the United States between 1868 and 1910 were aged between 15 and 40. They were thus disproportionately likely to enter the workforce, implying that the labor market impact of the mass migrations was large. Crucially, migrants were typically unskilled, partly reflecting the fact that they were young, but also reflecting limited educational opportunities in their home countries. Indeed, as the century progressed migrants became even less skilled, as the source of the European emigration shifted southward and eastward.

The implications of this were straightforward: immigration tended to lower the relative wages of unskilled workers in the New World. Williamson (1997) shows that the ratio of unskilled wages to GDP per worker hour fell sharply in New World countries such as the United States and Australia during the late nineteenth century, suggesting that unskilled workers were doing progressively less well relative to average income earners. By this measure, inequality was on the rise in the rich countries of the New World during the era of mass migration. Moreover, inequality got worse in countries that attracted more immigrants (Williamson 1997; O'Rourke and Williamson 1999, ch. 11). Several studies, using various methodologies, have shown that in immigrant nations such as the United States, immigration had a significant negative impact on unskilled real wages (O'Rourke and Williamson 1999, ch. 8).

What Timmer and Williamson (1998) do is to demonstrate that there was a causal link between this rising New World inequality, on the one hand, and rising barriers to immigration on the other. Their crucial contribution is to provide an index of immigration barriers in the United States, Canada, Argentina, Australia, and Brazil from 1850 to 1930, based on a careful reading of each country's immigration legislation. An increase in the index signifies more pro-immigration policies, while a decline in the index implies a tightening of immigration barriers. Having constructed this index, they are then able to analyze the causes of increasingly restrictive policies

in their sample countries, and their conclusions are striking. The most consistently significant variable in the analysis reported by Timmer and Williamson is the measure of inequality mentioned earlier—namely, the ratio of the unskilled wage to per capita income, or of income near the bottom of the distribution to income in the middle. Regardless of what else is included in the regression equation, this measure of unskilled labor’s relative economic position turns out to have been an important influence on policy. Rising equality encouraged more open immigration policies; rising inequality encouraged more restrictive immigration policies.

Other economic variables also seem to have mattered for policy: high real-wage levels were associated with liberal policy in some countries, high real-wage growth in others. Low and falling immigrant “quality,” as measured by real wages in source countries, induced immigration restrictions. . . . There is also evidence of policy spillovers during the period: for example, Argentinian policy tended to mimic policy in Australia, Canada, and Brazil, while Brazil tended to mimic policies in Argentina and the United States. However, there is no evidence that widening ethnicity gaps between immigrants and host-country populations were responsible for tighter controls: policy can be well explained by the economic effects of immigration, and by policy overseas. Once other variables have been controlled for, there does not seem to have been an independent role for xenophobia of the sort frequently stressed by qualitative histories of the period.

Immigration Policy in the Twentieth Century

The late nineteenth century experience indicates that absent international institutions that can restrain individual countries’ policies, globalization can undermine itself. Labor market integration undermined itself by increasing income inequality in the New World, which in turn led to immigration barriers. In a similar vein, cheap agricultural imports into Europe spurred a protectionist retreat across much of the Continent (Bairoch 1989).

In the trade sphere, the lesson that was learned from this experience was that international institutions were needed to spur international cooperation. Thus, the interwar League of Nations was supposed, among other things, to provide a forum within which countries could agree to lower trade barriers; even though it failed dismally, the promise of the League would eventually be fulfilled via the General Agreement on Tariffs and Trade (GATT) and the World Trade Organization (WTO). The history of international migration is quite different in this regard, since there was never an international organization dedicated to the removal of barriers to international migration. . . . Both the French and German delegations at Versailles suggested that free migration be stitched into the post-World War I international economic architecture, but these proposals came to nought (James 2001, pp. 176–7). The Treaty of Versailles did establish the International Labour Organization (ILO), and some countries—such as France, Italy, Japan, and Poland—argued that the ILO should be involved in regulating migration. New World countries disagreed, however, and the result was that the ILO found itself limited to issues of domestic regulation:

immigration control was left to the discretion of individual countries. The interwar period saw a progressive tightening of immigration restrictions. When Europeans found New World economies closed to them, they often migrated to other European countries, and this in turn prompted European immigration restrictions. Harold James has gone so far as to speculate that the inability of countries in the interwar period to solve their economic problems by exporting people prompted calls for territorial expansion (James 2001, pp. 184–5).

Although the post-1945 settlement did involve the promotion of freer trade, migration was once again left for individual countries to decide. The result has been enormous wage gaps between rich and poor countries, and equally enormous potential gains to freer migration: Hamilton and Whalley (1984) famously estimated that free migration could as much as double world income, gains that make the estimated effects of world trade rounds seem trivial. Within this overall context of restriction, immigration policies have taken a variety of forms (Chiswick and Hatton 2003). In the early postwar years, several European countries tried to attract low-skilled workers on a temporary basis, and short-term contracts for unskilled migrants have also been employed in the Persian Gulf and the United States. Another factor potentially encouraging the immigration of less-skilled labor has been the abandoning of traditional national quotas (biased in favor of Europeans) in New World economies such as the United States, Canada, Australia, and New Zealand. On the other hand, several OECD countries have adopted points systems discriminating in favor of high-skilled immigrants, and this bias against the unskilled and in favor of the skilled is perhaps the most striking feature of many rich countries' immigration policies today.

Compared with the late nineteenth century, therefore, early twenty-first century policies make it far more difficult for developing countries to use migration as a means of convergence on the rich. One hundred years ago mass emigration raised living standards significantly in countries such as Ireland, Italy, and Sweden, enabling them to converge on the core countries of the day, Britain and the United States. Indeed, mass migration can account for as much as 70 percent of the convergence in living standards worldwide that occurred during the late nineteenth century (O'Rourke and Williamson 1997; 1999, ch. 8; Taylor and Williamson 1997). Furthermore, since the emigration predominantly involved unskilled workers, it raised the incomes of the unskilled relative to average incomes in emigrant economies, making those economies more equal (Williamson 1997). From the point of view of poor countries, therefore, international labor markets offered not only higher living standards but more equal societies. Today's rich-country immigration policies not only prevent developing economies from raising their average living standards via emigration, but—by admitting skilled workers rather than unskilled workers—these policies may actually hurt developing economies via the brain drain effect, and also make them less equal (by raising the relative wages of skilled workers).⁵

From a developing-country perspective, therefore, it becomes crucial to understand the underlying forces driving rich-country immigration policies today. Is it true today, as it was a hundred years ago, that racism and xenophobia play a relatively minor role, and that economics alone can explain the existence and development of

immigration barriers? And if economic factors matter, what factors are these? What models of migration can help us to understand the contemporary political economy of immigration restrictions?

An indispensable element in any complete answer to these questions will be an account of what drives individual voters' preferences. As Scheve and Slaughter (2001) point out, individual-level preferences regarding trade must lie at the heart of any rational choice account of policy formation, and this paper follows them in using individual survey data. However, while Scheve and Slaughter use survey data for just one country, the United States, we use data for 24. The next section introduces our data set.

Data

What do we need to accomplish our objectives?⁶ We need a data set that provides information on individuals' attitudes toward immigration, socioeconomic position, sociodemographic characteristics, and political attitudes. Since the Borjas and HO models predict that skill levels will have different implications for trade policy preferences in different countries, the data should be cross-national in scope.

What we have are data provided by the 1995 International Social Survey Programme (ISSP) module on national identity. The ISSP national identity survey was conducted in 24 countries in 1995–6. The countries concerned were Australia, West Germany, East Germany, Great Britain, the United States, Austria, Hungary, Italy, Ireland, the Netherlands, Norway, Sweden, the Czech Republic, Slovenia, Poland, Bulgaria, Russia, New Zealand, Canada, the Philippines, Japan, Spain, Latvia, and Slovakia.

This data set provides individual-level measures of a range of demographic, socioeconomic and political variables. Among the socioeconomic variables, the most valuable from the point of view of testing the implications of the theories we surveyed earlier is the respondent's skill level. This is arrived at by coding the answers to questions on respondents' occupation using the International Labour Organization's ISCO88 (International Standard Classification of Occupations) coding scheme. While a complex coding scheme of this sort allows for very fine distinctions between different occupations, we are interested in the four main skill categories provided by ISCO88. In brief, these are: (1) "elementary occupations" (that is, "manual labor and simple and routine tasks, involving . . . , with few exceptions, only limited personal initiative" (ILO 1990, p.7); (2) "plant and machine operators and assemblers; craft and related trades workers; skilled agricultural and fishery workers; service workers and shop and market sales workers; clerks"; (3) "technicians and associate professionals"; and (4) "professionals." A fifth group, "legislators, senior officials and managers," do not have a skill coding under this four-step skill classification and were included as a separate, fifth, skill category. Finally, we excluded members of the armed forces, since it was unclear what their skill levels were. Skill data were available for 21 of our 24 countries; we have had to omit the other three (Italy, Japan, and Sweden) when estimating models involving skill.

We also make use of a subjective economic variable, namely the stated willingness of people to move from one location to another in order to improve their standard of living or their work environment. Respondents were asked: “If you could improve your work or living conditions, how willing or unwilling would you be to move to another neighbourhood or village; another town or city within this county or region; another county or region; outside [named country]; outside [named continent]?” Based on the responses to these questions, we derived two binary variables, indicating whether or not individuals were nationally mobile and internationally mobile.⁷ Arguably, those willing to relocate within the country should be more sanguine about the dislocation implied by immigration than those who are immobile. This will be particularly true if immigrants tend to concentrate in particular regions or cities. The rationale behind including the international mobility variable is that people who view themselves as potential emigrants may see migration as an opportunity rather than as a threat. Alternatively, being willing to live overseas may signal an openness to other cultures, and hence a greater tolerance for immigrants. By the same token, we also make use of a question that asks whether the respondent had ever lived abroad, on the basis that previous experience of living abroad may provide a signal regarding willingness to move again, as well as familiarity with foreigners. In addition, we have information on respondents’ age, on their gender, on their religion, on whether they and their parents are native born or not, on their marital status, and on a variety of other personal characteristics and attitudes.

The ISSP national identity data set includes a wide range of indicators of nationalist attitudes. Rather than focusing on just one or two of these as indicators of what is, after all, a complex phenomenon, the approach taken here is to seek to identify an underlying dimension (or dimensions) of nationalism that would be measured by a subset (or subsets) of the items. We focus on the following seven areas (versions implemented in Ireland, other country/nationality labels substituted as appropriate):

- “Generally speaking, Ireland is a better country than most other countries”
- “The world would be a better place if people from other countries were more like the Irish”
- “I would rather be a citizen of Ireland than of any other country in the world”
- “It is impossible for people who do not share Irish customs and traditions to become fully Irish”
- “People should support their country even if the country is in the wrong”
- “Ireland should follow its own interests, even if this leads to conflicts with other nations”
- “How important do you think each of the following is for being truly Irish?”
“to have been born in Ireland”

In each case, respondents were asked to rank their responses along a scale, in the case of the first six items, from 1 (strongly disagree) to 5 (strongly agree) and, in the case of the seventh item, from 1 (very important) to 4 (not at all important). The seventh item was reordered to make it consistent with the other six. Principal

TABLE 2.
Factor Analysis of Nationalist Items in ISSP National Identity Survey 1995

| Item | Factor 1 | Factor 2 |
|---|--------------|--------------|
| [COUNTRY] better country than most other countries | 0.86 | 0.02 |
| World better place if people from other countries more like the [NATIONALITY] | 0.78 | 0.2 |
| Rather be citizen of [COUNTRY] than of any other country in world | 0.61 | 0.29 |
| Impossible for people who do not share [NATNL.] traditions to be fully [NATNL.] | -0.01 | 0.71 |
| People should support their country even if country is wrong | 0.20 | 0.63 |
| Importance of having been born in [COUNTRY] to be fully [NATIONALITY] | 0.16 | 0.63 |
| [COUNTRY] should follow own interests, even if conflicts with other nations | 0.23 | 0.55 |
| Percent variance | 26.34 | 24.50 |

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

Source: O'Rourke and Sinnott (2001). Data from ISSP National Identity Survey 1995.

components analysis of these responses yielded two factors or underlying dimensions of nationalist attitudes. As can be seen from the rotated factor loadings in table 2, the first factor is a straightforward preference for and sense of the superiority of one's own country (here labeled *patriotism*). The second factor identifies a narrow or exclusive sense of nationality combined with a degree of chauvinism of the "my country right or wrong" variety (here labeled *chauvinism*). On the basis of this analysis, patriotism and chauvinism scores have been calculated by averaging responses across the relevant subsets of items identified in the factor analysis.⁸

Explaining Individual Attitudes toward Immigration

Table 3 presents the results of a series of ordered probit regressions that were run explaining attitudes toward immigration. The dependent variable is the scaled response to the question mentioned earlier, which asked respondents whether they thought that the number of immigrants to their economy should be increased a lot (1), a little (2), remain the same (3), be reduced a little (4), or reduced a lot (5). Skill 345 is a binary variable that takes the value one if the respondent's skill level is either three, four, or five, and zero if his or her skill level is one or two; the variable thus indicates whether the respondent is highly skilled or not. All equations include country dummy variables (coefficients not reported).

TABLE 3.
Exploratory Regressions: Ordered Probit

| | (1) | (2) | -3 | (4) | (5) | (6) |
|------------------------|-----------------------|-----------------------|-----------------------|------------------------|------------------------|-------------------------|
| Patriotism | 0.1090*** [0.0193] | 0.0997*** [0.0208] | 0.0787*** [0.0148] | 0.0606*** [0.0140] | 0.0613*** [0.0199] | 0.0597*** [0.0185] |
| Chauvinism | 0.3606*** [0.0461] | 0.3418*** [0.0484] | 0.3204*** [0.0516] | 0.2833*** [0.0497] | 0.2875*** [0.0686] | 0.3198*** [0.0457] |
| Skill345 | | -0.2662 [0.1765] | -0.2784* [0.1625] | -0.3045** [0.1544] | -0.1906 [0.1325] | -0.2609 [0.2001] |
| Skill345* | | -0.0072* [0.0041] | -0.0068* [0.0039] | -0.006 [0.0038] | -0.0132*** [0.0032] | -0.0057 [0.0051] |
| GDPCAP | | | | | | |
| Skill345* | | 0.007 [0.0047] | 0.0072* [0.0043] | 0.0083** [0.0041] | 0.0071** [0.0034] | 0.0069 [0.0045] |
| Inequality | | | | | | |
| National mobility | | | -0.0133 [0.0197] | -0.0119 [0.0195] | -0.0275 [0.0240] | -0.0283 [0.0236] |
| International mobility | | | -0.0806** [0.0326] | -0.0700** [0.0338] | -0.0434 [0.0436] | -0.0518 [0.0410] |
| Never lived abroad | | | 0.1228*** [0.0276] | 0.1106*** [0.0274] | 0.1099*** [0.0404] | 0.0978*** [0.0372] |
| Native | | | 0.1842*** [0.0569] | 0.1860*** [0.0581] | 0.1974** [0.0765] | 0.1394** [0.0608] |
| Native parents | | | 0.2002** [0.0779] | 0.1996*** [0.0730] | 0.1437* [0.0846] | 0.1635** [0.0806] |
| Age | | | 0.0075*** [0.0025] | 0.0064*** [0.0024] | -0.0076 [0.0049] | 0.0111*** [0.0028] |
| Age squared | | | -0.0001** [0.0000] | -0.00005* [0.00003] | 0.0001 [0.0001] | -0.0001*** [0.00003] |
| Female | | | 0.0327 [0.0261] | 0.0096 [0.0251] | 0.0185 [0.0329] | -0.0024 [0.0339] |
| Married | | | 0.0018 [0.0233] | 0.0006 [0.0231] | [0.0091] [0.0388] | 0.0134 [0.0310] |
| Catholic | | | -0.023 [0.0418] | -0.0281 [0.0418] | 0.0156 [0.0446] | -0.0702 [.0432] |
| Unemployed | | | 0.037 [0.0535] | 0.0284 [0.0533] | -0.0833 [0.0652] | 0.0102 [0.0608] |
| Protectionism | | | | 0.1228*** [0.0134] | 0.1080*** [0.0180] | 0.1442*** [0.0127] |
| Rural | | | | | 0.0914*** [0.0132] | |
| Public sector | | | | | -0.0486 [0.0316] | |
| Self-employed | | | | | 0.0314 [0.0421] | |

TABLE 3.
Exploratory Regressions: Ordered Probit—continued

| | (1) | (2) | -3 | (4) | (5) | (6) |
|---------------------------|-----------|-----------|-----------|-----------|----------------------|-----------------------|
| Trade union | | | | | 0.0083** [0.0037] | |
| Right-wing | | | | | | 0.0883*** [0.0304] |
| No. of observations | 26484 | 23246 | 21220 | 21191 | 10239 | 13443 |
| Log likelihood | -32707.20 | -28671.76 | -25883.56 | -25709.22 | -12550.889 | -16299.179 |
| Pseudo- <i>R</i> -squared | 0.07 | 0.07 | 0.08 | 0.08 | 0.09 | 0.09 |

Source: Author's calculations.

Note: Robust standard errors in brackets assume clustering at country level. * significant at 10 percent;

** significant at 5 percent; *** significant at 1 percent. Country dummy variables included; coefficients not reported.

Equation (1) establishes that both patriotism and chauvinism are strongly correlated with anti-immigration attitudes, with chauvinism having much the larger effect, as expected. These results are robust across all specifications, and indicate that noneconomic factors are extremely important in determining voters' attitudes toward immigration.

Does economic self-interest also have a role in explaining attitudes toward immigration, and if it does, which economic theories are useful in understanding what the interests of individual agents are?⁹ Equations (2) through (6) test the relevance of both the HO and the Borjas theories in explaining individual attitudes toward immigration. First, they include Skill345 as an explanatory variable. The coefficient on this variable is always negative, indicating (consistent with Scheve and Slaughter 2001) that the high-skilled are less likely to favor immigration restrictions than the low-skilled. However, the coefficient only becomes statistically significant at conventional levels when additional control variables are included (in equations [3] and [4]); and loses significance in equations (5) and (6), which use data for a smaller sample of countries. The test of HO theory, however, lies not in the sign of this coefficient, but in the sign of the coefficient on the interaction term between Skill345 and GDP per capita (measured in thousands of PPP-adjusted 1995 international U.S. dollars). If HO theory is correct, then it is the unskilled who should favor immigration restrictions in rich countries (that is, the coefficient on Skill345 should be negative in rich countries), but the skilled who should favor restrictions in poor countries (that is, the coefficient on Skill345 should be positive in poor countries). It follows that the interaction term between Skill345 and GDP per capita should be negative: the high-skilled should be less anti-immigration in rich countries than in poor countries.¹⁰ This prediction is broadly born out by the evidence in table 3: the interaction term is negative in all specifications, and significant in all but two (equations [4] and [6]).

The above exercises are fairly simple in their methodology. However, Mayda (2003) has recently and independently arrived at conclusions similar to these, using the same data set as well as the World Values Survey, but going into much greater detail and employing many additional individual- and country-level variables to test the basic HO predictions. She uses both education and skills as measures of human capital, and runs probit regressions explaining a dichotomous “immigrant opinion” variable. Her results are even more favorable for factor proportions theory than ours, even though she does not correct for differences in inequality across countries. Our findings regarding HO theory thus appear to be robust.

What about the Borjas theory? This predicts that in countries with less equal income distributions, immigration should predominantly involve skilled workers, while immigration should be biased toward the unskilled in more egalitarian countries. Thus, as we move from more equal societies to less equal ones, immigration should increasingly involve skilled workers, and skilled workers should become increasingly anti-immigration. That is, the coefficient on an interaction term between Skill345 and a measure of inequality should be positive; this is indeed the case. The measure of inequality used here is simply the Gini coefficient, taken from the World Bank's World Development Indicators. The Borjas theory is broadly speaking vindicated, since the coefficient is positive in all cases, and statistically significant in all but two (equations [2] and [6]).

Results for the other variables are mixed. As expected, people who have previously lived abroad are significantly more liberal in their attitudes toward immigration, while there is weaker evidence that those who describe themselves as internationally mobile are similarly more liberal; while the native-born, and those whose parents are native-born, are significantly more likely to favor immigration restrictions. Older people are more anti-immigration, although this is not true in all countries (and thus the effect vanishes in equation [5], which can only be estimated using data for some of the countries in our sample). Somewhat surprisingly, being unemployed has no effect on preferences either way (of which more later).

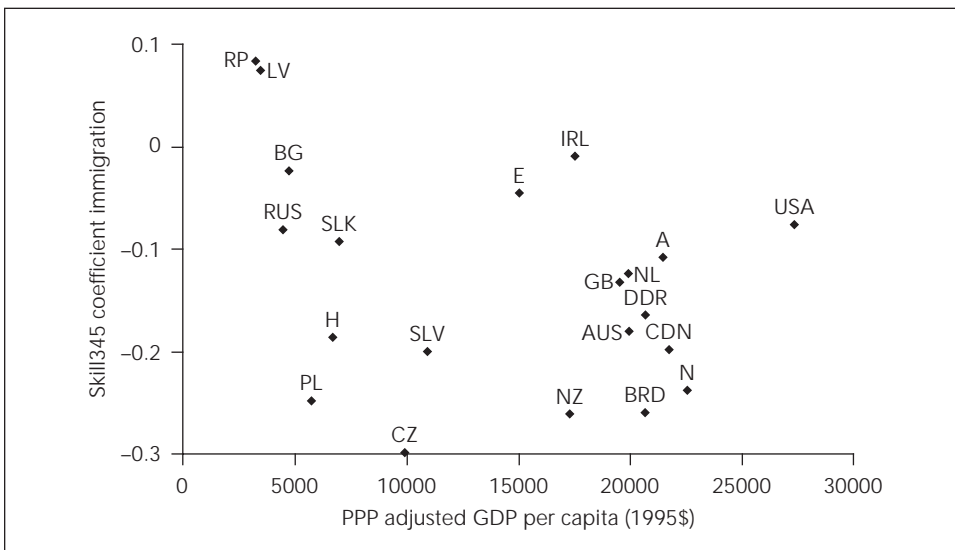
Equations (4) through (6) test another implication of HO theory: that agents who are protectionist will also favor immigration restrictions. “Protect” is the same variable as that given in table 1; that is, it contains responses to the question about to what extent respondents agreed with the statement that their country “should limit the import of foreign products in order to protect its national economy,” with responses ordered from 1 (strongly disagree) to 5 (strongly agree). If agents view trade and migration as substitutes, as HO theory suggests, then the coefficient on protect should be positive; indeed it is, in all equations.

For some countries, we have information on a number of other variables, and these are included in equations (5) and (6). Equation (5) shows that rural residents are significantly more likely to be anti-immigration, as are trade union members. Being self-employed, or being a public sector worker, has no effect on attitudes. Equation (6) shows that respondents who place themselves on the right of the political spectrum are more likely to be anti-immigration than those who self-identify as left wing.

Both the Borjas and the HO theories thus appear to be vindicated by the evidence. It is also the case that HO theory stands up better to the data when tested in a conditional form than when tested unconditionally. For example, when equation (2) is re-run, omitting the interaction term between Skill345 and inequality, the interaction term between Skill345 and GDP per capita becomes statistically insignificant (regression not shown). The HO theory assumes that countries are identical in all respects other than their relative endowments of skilled and unskilled labor, and the prediction of the theory is thus very much a *ceteris paribus* one; once inequality has been controlled for, the HO results begin to come through in these regressions.

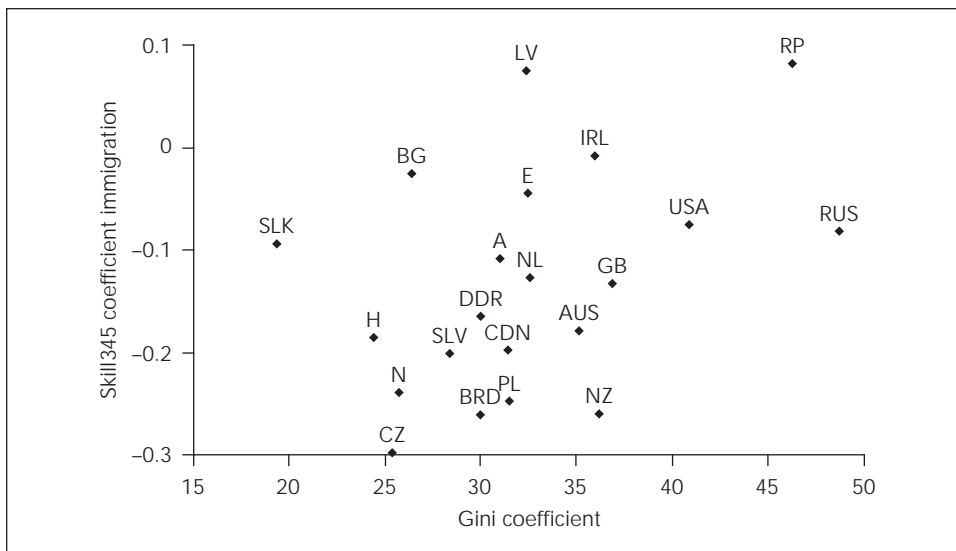
Another approach to testing the HO and Borjas theories is to run a series of regressions explaining attitudes toward immigration in individual countries, and compare the coefficients on Skill345 across countries. We did this using the specification in equation (3) (obviously we omitted the country dummies as well as the two interaction terms). Figure 1 plots the resultant coefficients on Skill345 for each country against that country's level of GDP per capita.¹¹ As can be seen, support for the HO predictions is in this case unclear. There is indeed a negative relationship between the coefficient on Skill345 and per capita GDP for the poorer countries in the sample (that is, the Philippines and the transition economies of Central and Eastern Europe); and in two of the poorest countries, Latvia and the Philippines, the impact of skills on anti-immigrant attitudes is actually positive. However, for the richer countries in the sample the relationship is unclear. This methodology provides stronger evidence for the Borjas theory: figure 2 shows a positive relationship between the Skill345 coefficient and the Gini coefficient (with a correlation coefficient of 0.401).

FIGURE 1.
Impact of Skill345 and GDP



Source: Author's calculations.

FIGURE 2.
Impact of Skill and Inequality



Source: Author's calculations.

Of course, figure 1 just plots the bivariate relationship between the Skill345 coefficient and GDP per capita; while the regressions in table 3 control for a simultaneous relationship between the Skill345 coefficient and inequality. It appears that the evidence for the predictions of Heckscher-Ohlin theory is weak when the unconditional version of that theory is tested; however, conditional on other factors the predictions of the theory hold up well.

Finally, one possible problem with the results in table 3 is that they do not take adequate account of the fact that attitudes toward trade and immigration are correlated with each other, and (crucially) that unobserved determinants of globalization could have similar effects on both variables. Table 4 therefore presents the results of seemingly unrelated bivariate probit regressions explaining attitudes toward both trade and immigration. It estimates two regressions with binary dependent variables (equal to one when respondents gave the most restrictionist response possible to the questions about trade and immigration restrictions, and zero otherwise); and allows the disturbance terms in both regressions to be correlated with each other.¹² The “rho” coefficient reported at the bottom of the table is the correlation between the disturbances in the two equations, or “(roughly) the correlation between the outcomes after the influence of the included factors is accounted for” (Greene 2002, p. 854). The results confirm that protectionism and anti-immigrant sentiment are correlated with each other, in that rho is strongly positive. The predictions of HO theory are also confirmed, in that the interaction term between Skill345 and GDP per capita in the anti-immigration equation is negative. There is less strong support for the Borjas theory: while the interaction term between Skill345 and the Gini coefficient in equation (2) is positive, it is statistically insignificant at conventional

TABLE 4.
Determinants of Antiglobalization Preferences (seemingly unrelated bivariate probit)

| Dependent variable | -1 | -2 |
|-----------------------------|--|------------------------|
| | Highly protectionist | Highly anti-immigrant |
| Patriotism | 0.1967*** [0.0214] | 0.0803*** [0.0225] |
| Chauvinism | 0.3677*** [0.0285] | 0.3754*** [0.0479] |
| Skill345 | 0.0387 [0.0717] | -0.2137 [0.1703] |
| Skill345*GDPCAP | -0.0137*** [0.0040] | -0.0093** [0.0038] |
| Skill345*Inequality | | 0.0057 [0.0040] |
| National mobility | -0.0301 [0.0189] | 0.0063 [0.0176] |
| International mobility | 0.0029 [0.0324] | 0.0233 [0.0292] |
| Never lived abroad | 0.0330 [0.0310] | 0.0537 [0.0363] |
| Native | 0.0873 [0.0827] | 0.2182** [0.0873] |
| Native parents | -0.0466 [0.0690] | 0.2515*** [0.0785] |
| Age | 0.0164*** [0.0049] | 0.0204*** [0.0031] |
| Age squared | -0.0001*** [0.0000] | -0.0002*** [0.0000] |
| Female | 0.0985*** [0.0262] | -0.0301 [0.0224] |
| Married | 0.0086 [0.0194] | -0.0239 [0.0231] |
| Catholic | 0.0588*** [0.0226] | -0.0082 [0.0293] |
| Unemployed | 0.0917** [0.0362] | 0.0986* [0.0580] |
| Constant | -2.8535*** [0.1675] | -2.7675*** [0.1754] |
| No. of observations | 24180 | |
| Rho [standard error of rho] | 0.221349 [0.013959] | |
| Wald test of rho = 0 | Chi squared (1) = 235.13, p-value = 0.0000 | |

Source: Author's calculations.

Note: Robust standard errors in brackets assume clustering at country level. * significant at 10 percent; ** significant at 5 percent; *** significant at 1 percent. Country dummy variables included; coefficients not reported.

levels (with a p-value of 0.151). The other big difference between the results here and those obtained earlier is that unemployment now has a positive effect on anti-immigrant sentiment (which is reassuring).

Conclusions

The late nineteenth century was a period of unprecedented intercontinental mass migration, which mostly involved unskilled workers. This mass migration helped poor countries along the European periphery to catch up with rich core countries such as the United States; it also led to more equal income distributions in those peripheral economies. Mass migration thus led to major economic benefits for poor countries, although these benefits were at the expense of widening income distributions in the New World. By contrast, the twentieth century saw much tighter immigration controls. Not only have these prevented mass migration from being a force for international convergence in our own period; by favoring the immigration of skilled workers, rich-country policies in recent years may have promoted a brain drain from developing countries, leading to divergence at the international level and worsening income distributions within the developing world (but see note 5).

Understanding the evolution of rich-country policies toward immigration is thus an area of major practical concern. Immigration barriers began to be erected in the rich countries of the New World in the late nineteenth century. During that period, immigration restrictions appear to have been motivated by economic concerns, and in particular by fears that the immigration of unskilled workers would lead to increased levels of inequality. Controlling for economic factors, there appears to have been little independent role for factors such as racism or xenophobia in driving the retreat from liberal migration policies. Rather, mass migration undermined itself via the distributional changes that it provoked. The basic message from the history of late nineteenth century immigration policies is broadly consistent with HO theory, despite all the complications implied by the existence of third factors and differing technologies: unskilled workers moved from Europe (where they were relatively abundant) to the New World (where they were relatively scarce), thus lowering unskilled wages in the New World. It was this fact above all else that prompted immigration restrictions in the decades leading up to World War I.

Our analysis of individual voter attitudes in the late twentieth century leads to somewhat different conclusions. Most notably, patriotism, and above all chauvinism, is strongly associated with more hostile attitudes toward immigrants: economics alone cannot explain the hostility that is directed against immigrants in many countries. On the other hand, economic factors are also important in explaining attitudes. The econometric exercises lend support to the basic HO prediction that the highly skilled should be less anti-immigration in rich countries than in poor countries, although the theory works better once other factors, notably inequality, have been controlled for. They also support HO theory in that protectionism is positively associated with anti-immigrant sentiment, suggesting that voters view trade

and factor flows as substitutes rather than as complements. The Borjas theory of immigrant self-selection also receives support from the data, in that the high-skilled are more anti-immigration in countries with unequal income distributions than in more egalitarian societies.

The two sets of results are not entirely comparable, however, since they use different data: the Timmer and Williamson results for the nineteenth century look at policy outcomes, whereas we look at individual preferences. Presumably there is some relationship between voter attitudes and policies, at least in democracies; but policies depend on not just on preferences, but on political institutions, the lobbying capacity of various interest groups, and so on. It may be that there was a strong individual-level correlation between chauvinism and anti-immigrant sentiment in the nineteenth century, but that for some reason politicians paid more attention to economic factors when making their decisions. To test such a hypothesis, we would need late nineteenth century survey data, something that we do not and never will have. Maybe today's policy makers similarly try to ignore racist sentiments when making policy, and focus solely on economics (although recent elections in countries such as Austria and Denmark cast some doubt on this possibility).

In order to test such a hypothesis, we would need measures of immigration policy that are consistent across countries. The striking difference between the amount of work that has been done trying to explain trade policy and the amount of work done on immigration policy is presumably largely because it is easier to measure the former than the latter (or, rather, it is easy to obtain average tariff data; whether these are a good measure of trade policy is another matter—see Anderson and Neary 1994). True, asylum systems generate comparable data across countries, such as recognition rates for asylum applicants. But the extent to which this measures immigration policy per se, rather than differing commitments to countries' international human rights obligations, is open to question. A major research focus should thus be to generate cross-country panel data on immigration regimes—on their overall restrictiveness, and on the extent to which they are biased in favor of skilled workers—which can then be analyzed using econometric methods. A second focus should be the collection of better immigration statistics—to nineteenth-century historians, it is striking how patchy are today's migration data. A third focus should be to generate more internationally comparable data on the characteristics of immigrants—their educational attainment, for example, since migrants' skill levels are of crucial concern to policy makers, and are also important when testing various theories of migration. A fourth focus should be the collection of data on skill differentials that are easily comparable across countries, since the nineteenth century experience suggests that these differentials could be important in explaining attitudes toward immigration. Finally, it would obviously be interesting to perform exercises such as the ones undertaken here using survey data for a series of years, in order to see how the determinants of attitudes toward immigration change over time, and in order to relate such changes to shifts in the economic and political environment.

While the agenda for researchers seems clear, the lessons for policy makers are more mixed. On the one hand, the fact that economics does have an impact on voter

attitudes leaves open the possibility that governments might compensate those who lose as a result of immigration by means of a range of side payments or other policies. On the other hand, attitudes motivated by nationalist attitudes are much less susceptible to such policies. The clear link between nationalism and anti-immigrant hostility that emerges clearly from these data suggests that politicians have a responsibility to avoid nationalist grandstanding during election campaigns.

From the point of view of developing countries, the experience of the late nineteenth century suggests that they are losing out by not being able to export surplus unskilled labor as peripheral European countries did a hundred years ago; the fact that some rich-country policies are promoting skilled immigration only compounds their difficulties. Current rich-country immigration policies increase the moral onus on the OECD to facilitate convergence through other means, for example, by liberalizing trade in "sensitive" products. This point should be made forcefully by poorer countries in the context of international trade negotiations.

Notes

We are grateful to Chris Minns and two anonymous referees for helpful suggestions. The usual disclaimer applies.

1. Note, however, that opinion surveys such as these may suffer from "hypothetical bias," in that were referenda to take place on (for example) restricting immigration, the actual results might well be quite different. De Melo, Miguet, and Müller (2002) found that this hypothetical bias was quite significant in the Swiss case: surveys indicated that a majority there were in favor of a 2000 proposal to reduce the proportion of foreigners in the population, but the proposal was in fact voted down. This discrepancy between hypothetical opinion surveys and the real referendum poll was largely due to differences between those who actually participated in the referendum and those who did not.
2. Recently economists have begun analysing the potential role of cultural preferences and other "noneconomic" factors in determining attitudes toward immigration, as well as immigration policies: see for example Hillman and Weiss (1999).
3. Things get even more complicated once we allow for the fact that households may own capital, as well as being endowed with labor (since immigration will affect returns to capital as well as labor): the distribution of capital among households will now also matter for preferences (see for example Bilal, Grether, and de Melo 2003).
4. In principle, self-selection should depend not only on income distribution within host countries, but on the relationship between host country and source country income distribution. A complete test of the Borjas theory would thus involve calculating source-country distributions for each host country. In this paper we make the simplifying assumption that source-country distributions are sufficiently similar for all host countries that self-selection varies across host countries based on differences in host country distributions alone.
5. This view is not universally accepted: some authors argue that skilled emigration can be a source of "brain gain" rather than "brain drain"; for a recent review of the literature, see Lucas (2004).
6. The next two sections draw on O'Rourke and Sinnott (2004).
7. Details available on request.
8. The Cronbach's alpha reliability coefficient for the three-item patriotism scale is 0.68 and the item-total correlations vary from 0.41 to 0.57. The four-item ethnic chauvinism scale

- is somewhat less satisfactory in this regard: an alpha of 0.53 and inter-item correlations ranging from 0.31 to 0.36.
9. Note that in all cases what is being tested below is a joint hypothesis: that agents' attitudes reflect economically rational calculations, plus the specific economic hypothesis being tested. Strictly speaking, therefore, the results allow us to conclude that agents' attitudes are consistent (or inconsistent) with particular economic models, and nothing more; but if their attitudes are indeed consistent—or inconsistent—with (say) Heckscher-Ohlin theory, then that is an interesting finding in itself.
 10. Strictly speaking, testing HO theory should involve using data on skill endowments; the assumption here is that these are strongly and positively correlated with GDP per capita. See O'Rourke and Sinnott (2001) for further discussion on this point.
 11. The country abbreviations used are given in Appendix Table 1.
 12. See Greene (2000, pp. 849–56).

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Comment on
“Migration Flows: Political Economy of
Migration and the Empirical Challenges”
by Kevin O’Rourke and Richard Sinnott

DEVESH KAPUR

Is globalization possibly laying the seeds of its own destruction? O’Rourke and Sinnott examine this provocative thesis by analyzing the economic and noneconomic factors that are shaping voter preferences on globalization in industrialized countries. The paper focuses on one particular aspect of the thesis—international migration—and sheds light not only on the broader issue of public attitudes toward globalization, but also on the micro-foundations of macro policy outcomes. Furthermore, with the Doha round in progress and Least Developed Countries (LDCs) pressing for discussions on Mode 4 (Movement of Naturalized Persons) under the General Agreement on Trade in Services (GATS), their paper also helps understand better the political constraints experienced by Organisation for Economic Co-operation and Development (OECD) governments on ongoing negotiations concerning international migration.

The central argument of the paper is that although economic concerns—particularly increasing levels of income inequality—led to immigration restrictions in an earlier era of large-scale international migration, in the current context, noneconomic reasons—patriotism and, in particular, chauvinism—are also important in explaining voter hostility to immigration. One of the principal strengths of the paper is the historical analog with the late nineteenth century, a period during which a large international migration from Europe to the “New World” raised incomes in the former.¹ However, since this migration to the New World was predominantly of low-skilled workers, it raised income inequality in receiving countries. In turn this led to a backlash in host countries, choking off a critical global equilibrating mechanism. By drawing our attention to this historic analog, the paper cautions us that a political backlash against globalization could once again result in a reversal of what otherwise seems an inexorable and inevitable trend.

What is the causal chain between immigration and immigration policies? Immigration has economic and social effects, which depend on the characteristics of immigrants

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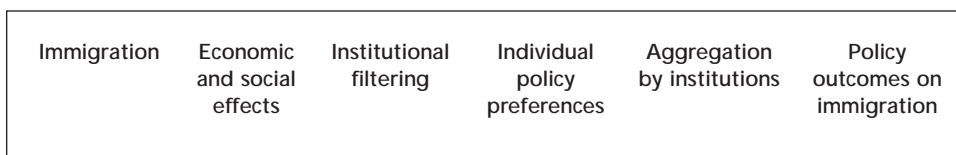
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(ranging from education and age to religion and race). These economic and social effects are, however, attenuated or amplified by the host country's institutional structures and policies, such as its labor markets and tax policies; the country's historical record of its treatment of minorities; and its political culture—for instance, the elite's tolerance for intolerance or inequality. It is only after this institutional filtering that the economic and social effects of immigration affect individual policy preferences. Even if voters express an antipathy toward things “foreign” (people more than goods), individual preferences by themselves do not translate into policy outcomes. Policy depends on the manner in which individual preferences are aggregated by a country's political institutions. Note that a country's institutions mediate both how the economic and social effects of immigration shape individual policy preferences and how these are aggregated, although of course it is not necessarily the same institutions that are doing both. Figure 1 is a schematic representation of this causal chain.

The interplay between economic and noneconomic factors in individual preference formation is exceedingly complex. Although the paper makes a good case for the importance of noneconomic factors in shaping individual preference formation today, its stress on the importance of economic factors in the earlier era (developed in greater depth in O'Rourke and Williamson 1999) is less convincing. Essentially we simply do not know whether noneconomic factors were even more important in the earlier epoch, because for the earlier period we have evidence only on three stages of the causal chain identified in figure 1. We have neither good evidence on individual policy preferences nor a good understanding of preference aggregation in that period. Indeed, looking back on the history of race and nationalism in the last century, it would be difficult to argue that public attitudes on these were not more extreme a hundred years ago than they are today in virtually all industrialized countries.

Thus the paper's argument—that concerns over negative selection effects were an important reason for putting the brakes on immigration—simply begs the question of why immigration from the South was ruled out, which would have dramatically increased the size of the selection pool. Why didn't immigration policy in the 1920s evolve in the same manner that it evolved in the 1960s? Race was clearly an important factor in immigration policies in many industrialized countries well into the 1960s. It is not surprising that opening up immigration into the United States after 1965 followed the successes of the domestic civil rights movement. A society that is racially hostile to its own minorities is very unlikely to be more racially tolerant of immigrant minorities.

FIGURE 1.
Causal Chain of Immigration and Policy



Source: Author.

The paper argues that a backlash against immigration, stemming from voters responding to the adverse distributional consequences of globalization, could affect voter preferences regarding globalization. The more interesting question is why—even though rising inequality may be less the result of immigration and much more the result of other factors, such as technological change and tax policies—it has become such a convenient scapegoat. Here the paper makes its principal contribution—immigration strikes the patriotism/chauvinism chord more easily than other factors. Thus even if as per Heckscher-Ohlin's model, trade and migration substitute for each other, in the public's mind they are not.

The empirical analysis in the paper on the effects of patriotism and chauvinism relies on data constructed from the 1995 International Social Survey Programme (ISSP). Other researchers who have also examined the issue of individual policy preferences on trade and migration (Scheve and Slaughter 2001; Myda 2002) have used the World Values Survey (WVS). In both cases I have to confess a degree of skepticism about cross-country comparisons of subjective data. Are these variables measuring identical concepts across countries?

The essential problem is that individuals understand the same question in very different ways, and the surveys make little attempt to address interpersonal incomparability, which would allow answers from different individuals to be attached to the same standard scale. Thus the same question designed to shed light on chauvinism can have very different answers not just across countries, but over time. For instance, in the United States, whether the question is posed after Watergate and the winding down of the Vietnam conflict, or during the ebullient years of the late 1990s, or following September 11, or during the Iraq War would elucidate very different answers. Do these survey responses simply reflect the prevailing *gestalt* of the time, or economic factors or immigration? Similarly, if a survey of immigration was done in France in 1998 in the aftermath of its World Cup victory when an Algerian immigrant played a critical role, the answers could be quite different than perhaps today. The point is that, even controlling for economic variables, the timing alone of a cross-national survey has implications for the degree of interpersonal comparability, especially across countries.² Ongoing work suggests that cultural and political identity is not primordial (that is, innate); rather, it is constructed—it is endogenous rather than exogenous. But we still have a very poor grasp of what dimensions of identity are salient in what specific contexts. Such an understanding might help us comprehend the degree to which survey responses on questions related to patriotism and chauvinism are endogenous to economic conditions—or distinct from it.

This is particularly the case since there is a general sense that the public does not see all migration as identical. The surveys used in the paper provide only a limited handle on this issue, since they focus on patriotism and chauvinism, not racism. There is a distinction because, although patriotism and chauvinism express a general dislike of foreigners, racism is much more selective. Today, religion appears to be replacing race as an important noneconomic factor conditioning public attitudes in Western countries. As one looks at the trajectory of international migration agreements, they are primarily bilateral (Japan, Philippines) or with a select group of countries (the

European Union, or countries that are signatories to the North American Free Trade Agreement), a trend that is likely to continue in the foreseeable future. If patriotism and chauvinism were the principal noneconomic factors, then we would observe a general allergy to all foreigners rather than this selectivity.

Furthermore, it is possible that attitudes toward foreign goods or people might really be reflecting something else, even apart from economic conditions, resulting in an omitted variable bias. The results in table 1 in the paper show that anti-immigrant bias is highest in East European countries. These were not countries with high levels of immigration but they were countries with a low level of generalized trust in society, the result of a historical legacy of authoritarian regimes and a ubiquitous secret police. Hence the high levels of anti-immigrant bias may really reflect this low level of trust in society.

One surprising nonfinding in the paper is the effects of unemployment. The coefficients on unemployment are insignificant—the paper notes this finding but does not dwell on it. But, like the dog that did not bark, this merits greater reflection. Numerous surveys have found that voters in rich countries are skeptical of the benefits of globalization largely because of worries of economic insecurity, which is most manifest in fears of unemployment. Hence, if unemployment does not affect preferences about immigration, then it is unclear if we really know what is going on.

APPENDIX TABLE 1.
List of country abbreviations used in figures

| | |
|-----|-----------------------------|
| A | Austria |
| AUS | Australia |
| BG | Bulgaria |
| BRD | West Germany |
| CDN | Canada |
| CZ | Czech Republic |
| DDR | East Germany |
| E | Spain |
| GB | Great Britain |
| H | Hungary |
| I | Italy |
| IRL | Ireland |
| J | Japan |
| LV | Latvia |
| N | Norway |
| NL | Netherlands |
| NZ | New Zealand |
| PL | Poland |
| RP | Republic of the Philippines |
| RUS | Russia |
| S | Sweden |
| SLK | Slovakia |
| SLV | Slovenia |
| USA | United States of America |

But all in all, the rich evidence and analysis in the paper is a refreshing antidote to the more breathless contemporary commentaries that take a teleological view of globalization. The paper carefully demonstrates that not only is globalization an exceedingly complex phenomenon, it is also by no means irreversible. It also points to the need for a better understanding of how individual preferences explain national policies toward globalization, be it trade or immigration.

Notes

1. The issue is analyzed in greater detail in O'Rourke and Williamson (1999).
2. King et al. (2003) discuss this problem and ways of correcting it.

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Of Patents and Genes: Flows of Knowledge and Intellectual Property Rights

CLAUDE HENRY

On the basis of results from the endogenous growth theory and the economic analysis of intellectual property rights, the paper considers the advisability of patenting elements of the human body, such as genes and proteins. These appear as “essential facilities” for further research in molecular biology and for the furtherance of public health goals; hence, no broad patents should be granted over them, and, in certain circumstances, no patents at all. Because, nevertheless, broad patents have actually already been granted, their use should be liable to public regulation, as are, in an increasing number of countries, natural monopolies on which public utilities rely. Some consequences for the implementation of TRIPS in developing countries are considered.

The Impact of Intellectual Property Rights on Genes: Three Examples

The imposition of intellectual property rights on genes has effects that can reach much farther than a patent first implies. Such rights may not always be advisable, as their enforcement may put artificial constraints on important medical research.

Genes BRCA₁ and BRCA₂ as Indicators of Susceptibility to Breast Cancer

The first example of the impact of intellectual property rights over genes involves the biotechnology firm Myriad Genetics (Salt Lake City, Utah, USA), which since 1977 has owned the rights attached to patents granted by the US Patent and Trademark Office (USPTO) on genes BRCA₁ and BRCA₂. These genes indicate susceptibility to breast cancer—that is, the presence of mutations of these genes reveals a greater risk of developing breast cancer. The patents also cover diagnostic tests for detecting mutations. On this basis, Myriad Genetics claims the rights to all diagnostic tests

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Annual World Bank Conference on Development Economics—Europe 2004

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involving the BRCA genes. This is in line with the broad reach that the USPTO and the U.S. courts generally grant to patents on genes.

In order to enforce its rights, Myriad Genetics notified all laboratories engaged in independent research or clinical trials of diagnostic tests involving the two BRCA genes that they should cease these activities. Among the most-concerned laboratories was the service of clinical genetics at the University of Pennsylvania. That laboratory was rather advanced in testing for susceptibility to breast cancer, and had a significant number of persons at risk under observation; nevertheless, the lawyers advising the university recommended that they cease all these activities for fear of litigation by Myriad Genetics for infringement of its patents. In Canada, the public health service has been more reluctant to comply with the requests from Myriad Genetics (it was also much less exposed to a judicial action): the public health service was not prepared to pay Myriad Genetics US\$2,800 per test, whereas the cost per test in Canada was only US\$300.

In Europe, the European Patent Office (EPO), following the lead of the USPTO, has also granted patents to Myriad Genetics. However, within a certain period after it has been granted by the EPO, a patent may be opposed by any person or organization with reason to think that the patent has been inappropriately granted. In this case, the Institute Curie in France, along with other Belgian, Danish, and French institutions, has filed an opposition. The outcome of the proceeding, which is conducted by a kind of appellate body within the EPO, is awaited with great interest.

Protein CCR5 and New Medicines to Combat AIDS

In 1995, Human Genome Sciences (HGS)—another U.S. biotechnology firm—filed for a patent on a gene coding for a protein, CCR5, that, according to HGS, might be involved in inflammatory disorders. In fact, no precise function was claimed to support the requested patent. While USPTO was examining the claim, scientists at the National Institutes of Health (NIH, the large American network of public laboratories working in life sciences) and at the Free University of Brussels, whose work did not depend in any way on HGS's claims, discovered that CCR5, when on the surface of a cell, might function as a gate for the entry of the HIV virus into the cell. On that basis, new medicines were subsequently developed that essentially shut that gate.

As if ignoring this independent discovery, USPTO granted HGS a patent that asserted rights over the gene that codes for CCR5, hence over all functions of that gene and all the applications derived from those functions. From a juridical point of view, therapies for AIDS derived from the role played by CCR5 might not be marketed without licenses granted by HGS, although their development did not scientifically rely on anything HGS had done. HGS agreed to several licenses for a significant portion of the profits made from the new medicines.

This is an emblematic case that illustrates the oddity of patenting a gene as if it were merely a “material compound”—that is, as if it were a synthetic chemical molecule, the invention of which patent law and jurisprudence usually reward by rights over all possible applications.

Genes Coding for Growth Factors

What does it mean that a gene codes for a growth factor? It means that the gene controls the production of a protein that binds with a receptor situated on the surface of a cell and then stimulates cell division; this effect may contribute to the repair or replacement of damaged or diseased tissues. The growth factor is the protein, but to be effective it needs to bind with a receptor on the surface of a cell that is consequently stimulated to reproduce itself.

What is at stake in the lawsuit considered in this section are the rights over the genes coding for heparin-binding growth factors (HBGFs); heparin is a receptor on the surface of many cells. Thomas Deuel (Harvard Medical School) has purified and sequenced some among these genes, and on that basis he petitioned for patents. In November 1993, the appellate body of USPTO backed the decision made by the examiners of that office to reject Deuel's petition for obviousness, taking into account the scientific and technical knowledge available at the time.

Deuel lodged an appeal with the Court of Appeals for the Federal Circuit (the federal court that deals with disputes in intellectual property when they are appealed), which in 1995 reversed the decision made by USPTO. The Court accepted that the scientific and technical literature, to which Deuel had access at the time his work was in progress, suggested how to proceed, and offered an application to another line of molecules; however, that was not a sufficient reason to deny Deuel a patent. This is not an unreasonable conclusion, as long as it is recognized that Deuel's results are neither pioneering nor specially broad. That the Court refused to recognize, by granting a patent not only over the genes that Deuel had purified and sequenced, but also over all genes coding for HBGFs. How many of those genes there are, nobody knows, but it is clear that the number is high. The Court's decision is all the more paradoxical because, in their "discussion," the judges write: "claims 4 and 6 are thus tantamount to the general idea of all genes encoding the protein, all solutions to the problem."¹

This example illustrates a characteristic drift: to treat as if it were pioneering an invention that is merely marginal in itself, but that is closely related to discoveries or inventions that are of much greater significance and are available freely. The marginal invention that gets a broad patent positions itself on the border between what Foray (2003) respectively calls "IPR [intellectual property rights] science" and "open science."² Deuel sought the protections of IPR science, and the Court of Appeal for the Federal Circuit granted him protections so broad that it is as if he deserved all the credit for the open science on which he has relied.

Economic Factors Conducive to Innovation

In order to properly assess the economic significance of the three cases discussed in the previous section, and more generally to assess the positive and negative contributions of patent protections to innovation in biotechnologies, it is necessary first to

recall the main lessons drawn from the microeconomic analysis of innovation and intellectual property.

Endogenous growth theory provides solid foundations for investigating the economic factors conducive to innovation. Indeed, as Aghion and Howitt put it, “The economic growth involves a two-way interaction between technology and economic life: technological progress transforms the very economic system that creates it.”³

In this framework, it has been shown—both theoretically and empirically—that the following four factors are conducive to innovation:

1. Competition for realizing innovations; in its extreme form, this is Schumpeter’s “creative destruction.”
2. Ex-ante competition on the product markets: firms try to escape “neck-and-neck” competition by innovating.⁴
3. The diffusion, as large as possible, of knowledge created by previous innovations: knowledge is a public good and, as such, ideally should be freely available.⁵
4. Limitation of ex-post competition on the markets for the products that derive from the innovative effort: the prospect of a protected market is more attractive for the innovator than the prospect of a competitive one.

As ex-post competition after one round of innovation is ex-ante competition before the next round, factors (2) and (4) are colliding. This is not directly the case between (1) and (3) on one side, and (4) on the other side; however, indirectly, it becomes the case, as soon as the limitation in (4) is implemented through instruments of protection of intellectual property such as patents. Schumpeter was very much in favor of the limitation of ex-post competition, to the point of recommending monopoly powers in favor of the innovators; but he meant powers on products—that is, on private goods emanating from new knowledge, not powers on knowledge itself, which is a public good. Having also in mind the fact that any monopoly is detrimental, at least directly, to the consumers’ interest, it appears that granting patents to innovators is a seriously imperfect way of creating incentives to innovation and of financing the necessary investments. It should thus be used only under the condition of carefully balancing its benefits and its costs, and of taking into account other incentives and other sources of finance.⁶

In particular, making knowledge available as largely and as freely as possible is of paramount importance, as David argues: “Legal and other institutional arrangements may be imposing high costs on research intensive firms, and society more generally, by restricting access to some elements in the streams of creative thought, and thereby making it less likely that the elements will be rapidly rearranged and recombined in new and fruitful ways.”⁷

The extent of the monopoly power embedded in a patent is characterized by the patent’s length and breadth. Patent length is, at 20 years, more and more uniform around the world; for products, such as pharmaceuticals, that are subject to long regulatory delays, it may be up to 25 years. These are legal lengths. The actual lengths are often shorter, as new competing products are developed without infringing to the existing patents.

A patent's breadth can often be characterized by the minimum differentiation degree—be it vertical, horizontal, or in terms of reduced production costs—that a new product must entail with respect to the covered product in order to avoid infringing on the patent. There is thus a protection zone out of which competitors must keep in their efforts to innovate in their turn. They might be helped in these efforts by the information that must be disclosed when a patent is granted, information that would not be available if, in the absence of a system of protection of intellectual property, innovations were kept secret.

However, if its breadth is excessive, what a patent blocks weighs more than what it allows: the benefits are superseded by the losses in terms of factors (1), (2), and (3) above, and in terms of direct consumers' surplus. The losses in terms of (3)—that is, the lost opportunities of large and free use of knowledge as public good—may be specially significant, as Merges and Nelson recall: "When a broad patent is granted, its scope diminishes incentives for others to stay in the invention game, compared with a patent whose claims are trimmed more closely to the inventor's actual results."⁸

Appropriate Patents' Breadths: General Results and Application to Biology and Biotechnologies

From the previous section, it appears that the choice of an appropriate breadth for a patent is decisive in terms of the role that this patent plays in the innovation process. If the breadth is too narrow, factor (4) loses much of its incentive effect; if it is too large, factors (1), (2), and (3) are damped down. How can one determine an "appropriate" breadth?

Many contributions in the economic literature specializing in the subject provide elements of answers to that fundamental question.⁹ From these elements the following results emerge: a patent on an invention (or a discovery—see endnote 3) should be narrower:

- the less there are substitutes for the products developed from the invention, or the more difficult it is to by-pass the invention (or, more often, the discovery) in subsequent research;
- the less the invention is costly to complete by the inventor;
- the more there are non-monetary incentives (for example, "academic rewards") available to motivate the inventor.

The first condition implies that it is not appropriate to grant a broad patent to an invention (and, a fortiori, a discovery) that commands important applications or lines of research that cannot be pursued without the results covered by the patents. In such circumstances, the invention (or discovery) is an "essential facility," essential for developing these applications or for working on further research. We here reach a junction between the protection of intellectual property and the protection of competition, including the competition for innovation and the access to knowledge, as argued by Tom and Newberg, both members of the US Federal Trade Commission,

in *US Enforcement Approaches to the Antitrust-Intellectual Property Interface*: “If market power in an antitrust sense is not to be presumed, then, as with any other form of property, the existence of such power must be determined by evaluating the availability of close substitutes.”¹⁰

When an element in the body (a gene, protein, and so on) plays roles for which it cannot be replaced by any other element, we are at an extreme case of the situation discussed above: any substitute is lacking, not only close ones. Regarding such elements, which incidentally are discovered and not invented, even the caution urged by Merges and Nelson (see previous section) might not be sufficient: from the point of view of economic efficiency, it might be required to reduce a patent’s breadth below what would coincide with “the inventor’s actual results.”

The case of genes is of special interest. Many genes play essential roles for which there are no substitutes. In antitrust terms, they are “essential facilities.” Moreover, they are no longer costly to isolate, sequence, and characterize. For all these reasons—and the first one is paramount—no broad patent should be granted on a gene.

The problem then is that, because patent offices and courts deal with a gene as if it were a synthetic chemical molecule (referred to as “material compound”),¹¹ the patents they grant are “product patents” that cover all the gene’s functions and all applications of those functions; they cannot but be broad. The only logical conclusion is that, for the sake of economic efficiency, genes should not be patented at all.

Regulating the Access to Essential Facilities with Licenses

In effect, tens of thousands of claims on human genes have been granted by USPTO or are being examined there. To mention only two among the numerous firms involved, Incyte Pharmaceuticals and Human Genome Sciences respectively have 4,500 claims (organized in 570 patents) and 3,400 claims (in 450 patents); this is a race toward the confiscation of genes. EPO is some distance behind, but is following suit. There are also patents on DNA subsequences and on proteins. That situation is a serious obstacle to further research and to a large diffusion of essential therapies. Increasing transaction and litigation costs considerably increase the time and resources necessary to complete a research project. That has for example been the case for the *Malaria Vaccine Initiative*,¹² an international nonprofit project the promoters of which discovered that they were dependent on more than 20 patents, some ill-defined or even overlapping (nobody had very much cared for patents to which no clear perspective of profitability was attached). It took years to disentangle this web; it would have been even more difficult if hundreds of patents had been involved.¹³

In such circumstances, it is no surprise that much dissatisfaction with the functioning of the patent system was expressed in the answers to a survey conducted in 1998 by the NIH with the U.S. biotechnology firms. They didn’t repudiate the patent system, but they complained at length of the proliferation of upstream patents that blocked or hindered their own research efforts. Year after year, the situation was worsening. Transaction and litigation costs were exploding. Even convenient

arrangements between firms such as cross-licensing or establishing patent pools were becoming insufficient to stem the tide, to “navigate the patent thickets.”¹⁴

The number of patents granted by USPTO is not the only parameter explaining the difficulty and the cost of negotiating intellectual property rights. The uncertain validity of many patents, insufficiently investigated by USPTO, is also a problem. So is the behavior—well documented in the survey—of the participants in the market for intellectual property rights, insofar as the sellers tend systematically to overestimate what they have to offer, and the buyers tend systematically to underestimate what they are offered.¹⁵ The transactions become even more difficult and somewhat perverse as far as the subsequent diffusion of knowledge is concerned, when the seller requests property rights on the inventions or discoveries that the buyer might make with the help of the knowledge handed over by the seller. University researchers find such requests specially difficult to handle. Many among them had enthusiastically endorsed the opportunities created by the Bayh-Dole Act;¹⁶ they subsequently had to put up with the inconveniences of the new regime of “IPR science.” Under the previous regime of “open science,” they were often granted by firms specific or tacit exemptions from effects of intellectual property rights. That was over: finding that the university researchers had become tough players on the IPR market, the firms became equally tough with them, often requesting rights over results obtained in university laboratories. Interesting other firms in the same line of research, or attracting sponsors, was then very difficult. The mechanisms of IPR science, as they work in reality, are apt to breed serious obstacles to the course of innovation.

All these problems need not emerge when patents play their basic role as supports of efficient transactions in knowledge. That has been the case with the Boyer-Cohen patent that covers a basic technique in genetic engineering. This patent has been the support of a large number of nonexclusive licenses sold at reasonable prices. Moreover, free use of the technique for nonprofit researches has always been possible.¹⁷ But more often, in order to maximize their profits, patent holders either exploit their patents themselves (as Myriad Genetics has done), or sell exclusive licenses. It may even happen that, in order to protect existing production techniques, they block the use of patents they own.¹⁸ Thus there are many circumstances in which licenses are not offered to anybody who needs them and is prepared to pay reasonable prices.

Public utilities (such as electricity, rail, and telecommunications) depend on essential infrastructures (grid, track, local networks, and so on). Without access to these natural monopolies at fair prices, firms are excluded from the corresponding businesses. Regulating access, and price of access, by specialized public authorities (the regulators) is now an almost universal approach to the problem.¹⁹

Genes, proteins, and other elements of the body constitute an essential infrastructure of critical importance to further research and to public health. If owners of patents don't offer licenses at reasonable prices when some research or public health imperative would require it, then regulating these elements is no less economically justified than regulating the owners of electricity, rail, or telecommunications networks. Compulsory licenses may be used as regulation tool. Canada and the United States have a long experience with compulsory licenses—to deal mainly with health

requirements in Canada and as antitrust remedies²⁰ in the United States—where they have also been used in defense procurement to overcome deadlocks between private firms (in aeronautics, and in electronics) deemed detrimental to the national interest.

There are familiar objections against compulsory licenses. They weaken the incentives to innovation brought by the corresponding patents. In network utilities, the parallel concern is that capped prices for the access to essential infrastructures lead to underinvestment in these infrastructures. More generally, the asymmetry of information between regulator and regulated firms makes it impossible for the regulator to set appropriate access conditions (to essential patents here, to essential infrastructures there). These problems are serious, and they deserve serious consideration, which is precisely what they got in the regulation of network utilities. In particular, both academic research and regulators' learning-by-doing have produced procedures converging to the setting of access conditions in such a way that information useful to the regulator is revealed during the course of the procedure and thanks to in-built incentive devices.²¹ What has been possible for network utilities regulation does not seem unattainable for intellectual property regulation.

Conclusion

“While patent protection provides an incentive for R and D, the patenting of intermediate technologies (particularly gene-based ones) required in the research process may actually create disincentives for researchers in terms of accessing, or unwittingly infringing patents on technologies they need. This is an area where patent practices in the developed world can impinge directly on what research is done for people in the developing world, and there are implications for the type of patent regimes that developing countries adopt.”²²

John Barton and the commission he chaired, on behalf of the U.K. Department for International Development, were looking for means of *Integrating Intellectual Property Rights and Development Policy*. What they say here, in carefully chosen words, is that such integration is made all the more difficult by the disease of the patent system that started and developed in the United States, and then reached Europe: unwarranted patents, unduly broad patents, less than rigorous examinations by the patent offices, the propatent zeal of the courts dealing with intellectual property disputes, and the explosion of transaction and litigation costs, to the point of hindering rather than promoting research and innovation.

If this is the system that the World Trade Organization (WTO)—by implementing the Agreement on Trade-related Aspects of Intellectual Property Rights (TRIPS)—is meant to spread all over the planet, then the doubts that one might already have concerning the tendency toward uniformization of intellectual property protection resulting from the TRIPS are seriously reinforced, and the difficulties of integrating intellectual property rights and development policy are increased. It is true that TRIPS formally does not require that elements of the human body be patented, but

pressures are high on developing countries to patent beyond TRIPS. These pressures are manifest in bilateral trade agreements, in particular with the United States. The option of regulating essential patents remains available to the developing countries according to TRIPS, but in reality, even this is in doubt, as these countries are also under pressure from developed countries to renounce formally the faculty of imposing compulsory licenses.

It seems clear that the drift characteristic of the patent systems in the developed countries will considerably complicate the adoption by the developing countries of intellectual property regimes that suit their needs.

Notes

1. Claims 4 and 6 are the claims with the broadest reach made by Deuel. The complete “discussion” presented by the Court is reproduced in Merges 1997, pp. 595–8.
2. In Deuel’s case, it is a discovery rather than an invention. According to a strict interpretation of the patent laws, a discovery is not patentable, only an invention is. However, in the last 20 years or so, this distinction has been ignored by the main patent offices and by the courts.
3. Aghion and Howitt 1998, p. 1.
4. The effects of “neck-and-neck” competition on innovation are analyzed in Aghion et al. (2001).
5. “The invention makes it possible for other researchers to begin working on the next innovation” (Aghion and Howitt 1988, p. 54). In the same spirit, Scotchmer, using a famous expression coined by Newton, entitles her review paper in the *Journal of Economic Perspectives* “Standing on the Shoulders of Giants: Cumulative Research and the Patent Law” (1991).
6. Academic competition, and the partly symbolic retributions it entails, provide powerful incentives to discover and invent, but it requires public or charitable funds for its financing. In a world of perfect information, that would not create distortions; in a world where imperfect information prevails it does, and we are again with an imperfect instrument. In *Intellectual Property: When Is it the Best Incentive System?* Gallini and Scotchmer (2002) assess the merits and the imperfections of various systems of creating incentives to and providing finance for innovation. In *R. and D. Cooperation and Competition*, Katz and Ordover (1990) mention for the United States rates of more than 40 percent for public subsidizing of private research (universities not included).
7. David (1993), p. 29.
8. Merges and Nelson (1990), p. 916.
9. Among the most significant are Merges and Nelson (1990), Chang (1995), Scotchmer (1999), Gallini and Scotchmer (2002), and Denicoló (2002).
10. Tom and Newberg (1998), p. 346. That “market power is not to be presumed” means that not all patents automatically create problems from the point of view of competition protection; however, problems, possibly serious ones, derive from the absence of close substitutes, and then need remedies. See also Barton (1995).
11. Obviously, genes are molecular systems. But, as far as the functioning of a living organism is concerned, they are above all information systems that code complex, diversified, and essential biological activities.

12. See Nuffield Council on Bioethics (2002).
13. As is the case when pharmaceutical companies screen molecules as candidates for medicines, or when tests are made with DNA chips: "If DNA chip development lives up to its promises, it will enable clinicians or even patients themselves to quickly and inexpensively test for up to 20 000 to 30 000 genetic properties from a drop of blood or hair sample." Ontario Draft Report to Premiers (2002), p. 11. For a wealth of examples, see also NIH (1998).
14. As shown in Shapiro (2000); see also Tirole (2003).
15. Then, otherwise advantageous transactions are not realized; see Gresik and Satterthwaite (1989).
16. Named after his proponents, Representative Bayh and Senator Dole, this Act was passed by Congress in 1980. It authorizes and even incites scientists working on federal funds to patent their inventions or discoveries; they may keep for themselves the bulk of the ensuing financial returns.
17. Other major discoveries or inventions in biology and biochemistry were not patented at all, and their use is completely free. This is, for example, the case of the Kohler-Milstein method for the in vitro production of monoclonal antibodies; the work has been entirely funded by the Laboratory of Molecular Biology, Cambridge (United Kingdom). Kohler and Milstein were granted the Nobel prize in medicine (see Kohler and Milstein 1975).
18. This is known as the "Arrow effect," introduced in Arrow (1962).
19. See Henry and Matheu (2001).
20. See Barton (1995) and Scherer (1998). Interestingly, from the large set of data he has gathered, Scherer concludes that, statistically, to impose compulsory licenses on the firms considered had no effect on their subsequent propensity to innovate.
21. See Henry and Matheu (2001) and Armstrong, Cowan, and Vickers (1994).
22. Commission on Intellectual Property Rights (2002), p. 34.

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Comment on “Of Patents and Genes: Flows of Knowledge and Intellectual Property Rights” by Claude Henry

JEAN O. LANJOUW

The World Trade Organization requires that members comply with minimum standards for intellectual property protection. These standards, embodied in the Trade-Related Aspects of International Property Rights (TRIPS) Agreement,¹ were the result of a multifaceted trade deal and did not, by themselves, engender broad support in much of the developing world. The rules required for the protection of pharmaceutical products, in particular, were bitterly controversial from their first introduction into the Uruguay trade round in the 1980s. Precisely because of the lack of consensus during the negotiations, the treaty leaves countries some flexibility to decide certain features of the intellectual property system. Although the debate over pharmaceutical patents has drawn the most public attention and concern because of its link to the immediate public health crisis created by HIV/AIDS, decisions must also be made about how to define rules in other important areas of research. One of these areas is the treatment of biotechnology innovations. Thus it is timely to take stock of the insights that economists can provide about whether it would be desirable for a poor country to offer broad protection in the area of biotechnology or if a more limited approach would be preferable. Many developing countries must put in place new patent laws as soon as the end of 2005 and there are real decisions to be made.

The paper by Henry addresses at least three specific questions for developing countries as they define their new patent systems. Considering newly purified and sequenced DNA compounds (henceforth “genes”), first, should they be patentable subject matter? If so, with what limitations? Finally, if it is decided that they should not be patentable, how should a country deal with patents that may have already been issued and will not expire for many years?

When considering these questions it is useful by recognizing that granting inventors intellectual property rights inevitably entails a tradeoff. The tradeoff is not, as it is sometimes cast, between corporate profits and the public good. Rather it is a

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Annual World Bank Conference on Development Economics—Europe 2004

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tradeoff between two equally important public goals: widespread access to existing research tools and consumer products and the maintenance of incentives to create new ones. The higher prices sustained by patents finance the search for new innovations, but higher prices also mean that fewer consumers and researchers can access existing tools and products. Thus a line must be drawn. Because consumers in developing countries are relatively poor, and because their national research sectors are relatively weak, the best place to draw the line for these countries may well differ from the choices made by rich countries. Thus simply adopting rich-country legal standards may not be the best strategy for a developing country. To do otherwise, however, requires understanding the potential costs and benefits associated with gene patents and their relevance in the developing world.²

In his paper Henry comes out strongly against the idea of allowing genes to be patentable. I do not want to take a position on this issue myself as it is very complex issue and the evidence base remains weak. However, I will outline, in a somewhat different way than Henry does in his paper, some of the concerns that have been raised regarding gene patents. These concerns can be loosely grouped under two broad headings: "efficiency" and "fairness."

Consider first efficiency. The basic rationale for the government to protect researchers who have identified genes from imitation and competition is that investment in the discovery of genes would be too low in the absence of this extra incentive. Thus the expectation is that patent protection speeds the discovery of more genes and furthers the development of biotechnology products. However, it is also possible that introducing patent protection is counterproductive and stands in the way of productive research because it raises the complexity of organizing research projects. On this front a number of flags have been raised.

The first involves a general contracting problem in situations involving cumulative research. This problem has been analyzed formally by economic theorists (see, in particular, Scotchmer 1991 and 1996). The simplest model considers a two-stage research process, where the first stage is discovery and purification of a gene and the second stage is the development of a product based on that gene. Suppose that both the gene and the subsequent product are patentable innovations, so that the final product cannot be sold without the approval of both patent holders. The theoretical analysis provides two important insights about incentives in this situation. First, it is not possible to attain the first best research outcome if licensing occurs after the first innovation has already been made. Intuitively, the problem is that to give the appropriate incentives to those doing the second, development, stage of research, all of the rents from any products must accrue to the second-stage researchers. But in order to give appropriate incentives to the first-stage researcher, all rents from final products must go to him. Clearly this is impossible. As a result, to the extent that gene patents give incentives for first-stage identification of genes, they diminish incentives to develop products from those genes. Vertical integration is one solution to the contracting problem, but it may come at the cost of having less-efficient researchers involved in each stage. If licensing can be done before any innovation occurs it is also possible to solve the incentive problem. However, it is unlikely that all, or even

most, useful licensing partnerships could be recognized before any investments had been made.

The contracting problem described above is one that would apply to any area characterized by cumulative innovation. Another problem with particular relevance in the area of biotechnology comes from the fact that it can be very costly and time-consuming to agree on contract terms. If contract negotiation adds a large transactions cost to coordinating biotechnology research, many worthwhile projects may fail to be pursued. This particular concern has been raised forcefully by Heller and Eisenberg (1998), where they argue that the fragmentation of rights over genes can create a “tragedy of the anti-commons.”³

In 1997 the U.S. National Institutes of Health set up a “Working Group on Research Tools” to investigate this issue by gathering information from a wide range of actors involved in biomedical research in both public and private spheres. As chair of this working group, Eisenberg summarizes the four main reasons for contracting difficulties given by the participants in the licensing negotiations (see Eisenberg 2001). First, the number and, in particular, heterogeneity of institutions active in biomedical research make it very costly for them to negotiate contracts over different parts of cumulative research. These institutions include universities and small companies, individuals, and nonprofit organizations. Inexperience with licensing is compounded by inexperience in dealing with each other. Second, the participants within any given institution—in particular, scientists and lawyers—can have different goals. Third, there are simple transaction costs associated with time constraints, especially on lower-valued transactions. Fourth, it is difficult objectively to value the innovation to be contributed by each party. A gene’s potential for development as it is understood at the time of contracting, for example, is often highly speculative. Valuation must be based largely on assessments of probable success and the level of optimism may vary considerably across parties.

All of these contracting problems increase the costs of organizing a biotechnology research project, and they make bargaining failures more likely. They are also likely to increase ex post litigation over property rights. This is because one response to the complexity of ex ante negotiations is simply not to do them; that is, to infringe on others’ patent rights in the process of doing research and worry about negotiations only if something valuable is discovered and an infringement is noticed. This may in fact be desirable when negotiation costs are high because most projects will not lead to successful commercial products. However, litigation can be extremely costly and significantly reduce returns on those products that are successful.

The contracting problems discussed above are confronted everywhere. However, they are likely to be particularly acute for researchers in developing countries. If is difficult for a technology transfer officer at MIT to deal with a multiparty negotiation involving U.S. companies and nonprofits, imagine the position of a scientist at the University of Delhi, in India, trying to negotiate use rights with multiple patent holders based overseas, or dealing with threats of litigation if such negotiations are avoided. Because research capacity in poor countries is relatively weak, it is also likely that a larger share of the projects undertaken there would fit the description

of "marginal" and run into the problem (3) noted above—that transactions costs overwhelm the expected value of the research program. Thus on both accounts the concerns related to contracting that have been raised by commentators on biotechnology patent policy in the rich countries are likely to be even more relevant in poor countries.

The second type of concern voiced in regard to gene patents relates to perceptions of "fairness." Patents are a type of social contract. Through the patent system, consumers effectively agree to pay inventors prices above marginal costs for a limited period of time in order to give inventors a reason to invest in the discovery and development of useful products. One theme that runs through commentary on gene patents is the view that the "deal" in this case is not fair—that the rewards being reaped by those obtaining gene patents greatly exceed the amount they have invested. This perception of unfairness can be important beyond the area of biotechnology. Effective patent systems are much more than a collection of laws. They require considerable expertise on the part of the science and business communities, and law enforcement and judicial systems that allow inventors to protect their legal rights effectively. Both require a commitment to intellectual property that will be there only if society views the protection being offered as reasonable. Thus, putting in place rules for biotechnology that the public perceives as unfair could end up undermining the entire system.

This facet of the discussion of gene patents is reflected in current debates in the United States, the European Union, and the WTO over the merits of "business method" patents and over the introduction of pharmaceutical patents in the developing world.⁴ Just as in the case of gene patents, there is also a view that the patent system is failing to achieve the right balance between costs and benefits in these areas. In the case of business methods, it is suggested that the rewards to patentees systematically exceed the resources invested and that this is unfair. In the case of pharmaceutical patents, the concern is that the burden of financing new patent rights falls on consumers who are both poor and sick, and that this is unfair (see Oxfam 2001a and 2001b).

Both in biotechnology and business methods the first step suggested for improving the situation is to stop granting "bad" patents. That is, patents that could be found invalid if examined carefully under existing rules. In his paper, Henry gives several examples of gene patents that seem to have been unreasonably broad in scope. A second direction for reform is to strengthen the patentability requirements of novelty, inventiveness, and utility. The United States recently took concrete steps in this direction. For example, U.S. Patent and Trademark Office guidelines regarding the patenting of DNA sequences now state that patenting requires disclosure of a "specific, substantial and credible utility" (see USPTO 2001).

A further step that could be taken would be to limit patentability to cover specific uses that have been found for a DNA sequence, and not to allow patents on compounds themselves. If the identification of new sequences has become a routine matter, then this would not greatly reduce efforts at the first stage, and the patent system would still promote investment in the further development of useful products.

Henry takes the position that genes should not be patentable (in any country), and then turns to the question of what should be done about already-existing patents. Here he proposes that they be subject to compulsory licensing—that is, licensing that does not require agreement by the patentee. The TRIPS Agreement limits the circumstances under which a country may issue compulsory licenses, but does allow such licenses as a remedy for anti-competitive practices (Art. 30(k)). Thus Henry proposes that gene patents be subject to compulsory license under the “doctrine of essential facilities.” This is an antitrust doctrine that has been used in a variety of situations to deal with monopoly control over a resource when such control is considered detrimental to the social good because it impedes others’ productive activities.

In the United States, case law suggests that one must prove the following four points in order to invoke this doctrine: (1) control of the essential facility by a monopolist, (2) a competitor’s inability practically or reasonably to duplicate the essential facility, (3) the denial of the use of the facility, and (4) the feasibility of providing the facility.⁵ Reading this list, it seems clear that if patented genes were considered “essential facilities” it would be hard to define what patented innovations were not “essential facilities.” Thus, going down this route to resolve a specific concern over gene patents would be likely to open up a whole new area of debate that would affect intellectual property in all areas of technology. It would introduce an element of uncertainty about patent rights that could undermine their ability to provide effective research incentives. For this reason I am skeptical about the value of this particular suggestion.

Notes

1. “TRIPS” refers to the Trade-Related Aspects of Intellectual Property, Annex 1C of the Agreement Establishing the World Trade Organization.
2. See the excellent discussion in CIPR 2002.
3. For a more optimistic view of the potential for patentees to overcome transactions costs, see Merges 1996a.
4. See Hall 2003 and Merges 1996a and 1999 for the debate over business method patents; see Lanjouw 2003 on pharmaceuticals.
5. For a discussion of this doctrine and experience see Cotter 1999.

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International Capital Flows: A Blessing or a Curse?

GRACIELA L. KAMINSKY

The explosion and dramatic reversal of capital flows to emerging markets in the 1990s have ignited a heated debate, with many arguing that globalization has gone too far and that international capital markets have become extremely erratic. In contrast, others have emphasized that globalization allows capital to move to its most attractive destination, thus fueling higher growth. This paper re-examines the characteristics of international capital flows since 1970 and summarizes the findings of the research of the 1990s on the behavior of international investors as well as the short- and long-run effects of globalization on financial markets and growth.

The explosion of capital flows to emerging markets in the early and mid-1990s and the recent reversal following the crises in Asia, Latin America, and transition economies have ignited once again a heated debate on the benefits and drawbacks on financial globalization. Many have argued that globalization has gone too far and that international capital markets have become extremely erratic, with “excessive” booms and busts in capital flows triggering bubbles and financial crises and also magnifying the business cycle. In contrast, the most traditional view asserts that international capital markets enhance growth and productivity by allowing capital to travel to its most attractive destination.

Even if international capital flows do not trigger excess volatility in domestic financial markets, it is still true that large capital inflows can spark off inflation in the presence of a fixed exchange rate regime. Moreover, transitory capital inflows may distort relative prices, with the domestic economy losing competitiveness as a result of the appreciation of the real exchange rate. No wonder policy makers have used a variety of tools to manage these flows, especially if they are of the “hot-money” type.

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Annual World Bank Conference on Development Economics—Europe 2004

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This paper reexamines the evidence on the characteristics of international capital flows since 1970 and summarizes some of the findings of the research conducted in the 1990s on the effects of globalization. It first presents a brief history of international capital flows to emerging markets, paying particular attention to the volatility of bank lending and portfolio flows. Second, and to understand more broadly the characteristics of capital flows, the paper reviews the findings of the literature on the behavior of mutual funds specialized in emerging markets as well the lending behavior of European, Japanese, and U.S. banks to emerging markets around the Mexican, Thai, and Russian crises. The results in the literature suggest that episodes of surge in capital inflows do, in fact, end in a sudden stop—whether owing to home-grown problems or contagion from abroad. Third, the paper reviews the evidence on the short- and long-run effects of financial deregulation on financial and real cycles. Interestingly, the stylized evidence suggests that although financial liberalization may trigger excessive booms and busts in the short run, in the long run financial markets tend to stabilize and growth accelerates. This section also examines the linkages between globalization and institutional reform. Fourth, the paper reviews the literature on managing international capital flows. The conclusions summarize what we know and we do not know about financial globalization and examine policy options.

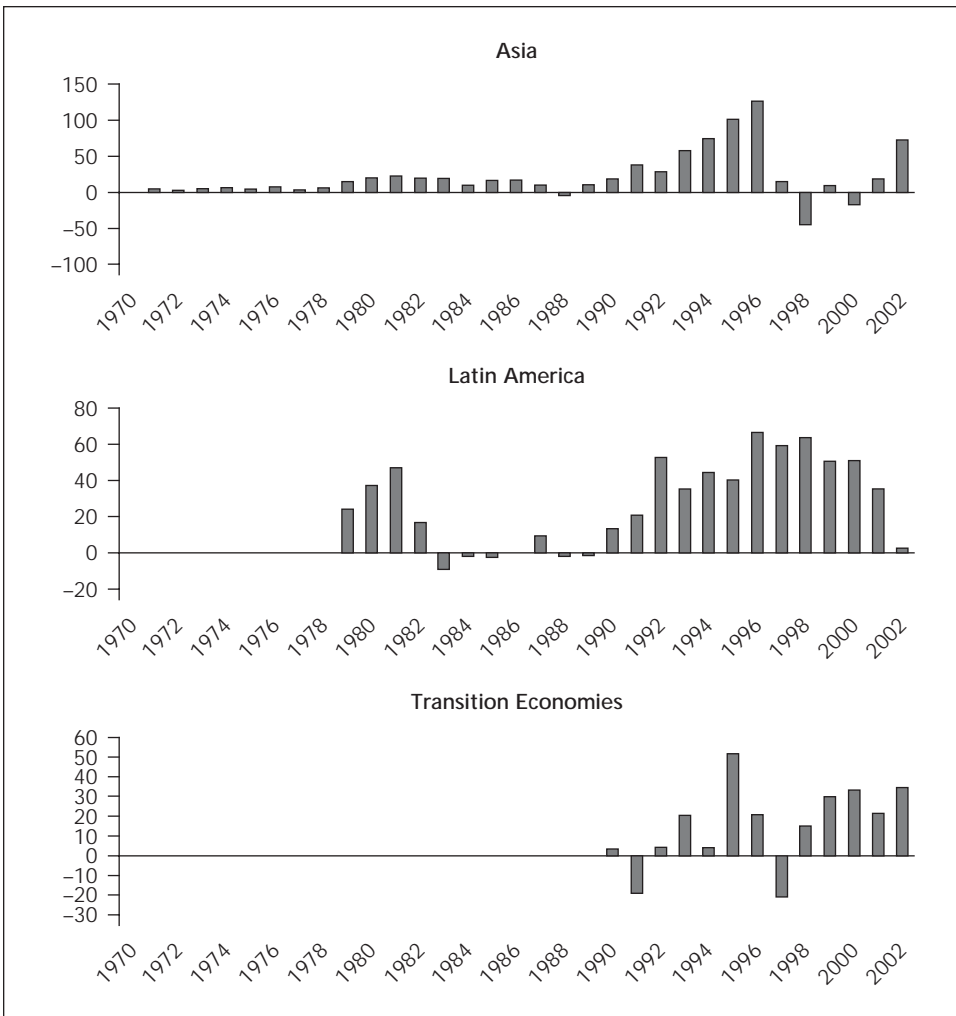
A Brief History of Capital Flows

The 1970s witnessed a remarkable boom of capital flows to emerging economies. The dramatic surge in international capital flows was triggered by the oil shock in 1973–4, helped by the growth of the eurodollar market, and amplified by a remarkable spurt of bank lending during 1979–81. Latin America became the main recipient of this heavy capital inflow, with capital flows to the region peaking at US\$46.2 billion in 1981 (see figure 1).¹ Overall, capital inflows to this region reached about 6 percent of the area's GDP. In this episode, international capital flows mostly took the form of syndicated bank loans (see figure 2). The pace of international lending came to an abrupt end in 1982 with the hike in world real interest rates to levels not seen since the 1930s. Suddenly, emerging countries became the pariahs of international capital markets. Not only were they excluded from voluntary capital markets, they were also forced to run current account surpluses to repay their foreign debts.

By the late 1980s, there was a revival of international lending, with Latin America becoming, once again, the darling of Wall Street. Flows to these countries made a tremendous comeback. This time around capital inflows to Asia also surged, with capital flows increasing 10-fold from their averages in the early 1980s. This time, however, the composition of capital flows changed dramatically, with bank lending being replaced by foreign direct investment (FDI) and portfolio investment. As shown in figure 2, bank lending to both Asia and Latin America declined from 70 percent of net private capital flows in the 1970s to about 20 percent in the 1990s.

(Text continues on p. 145)

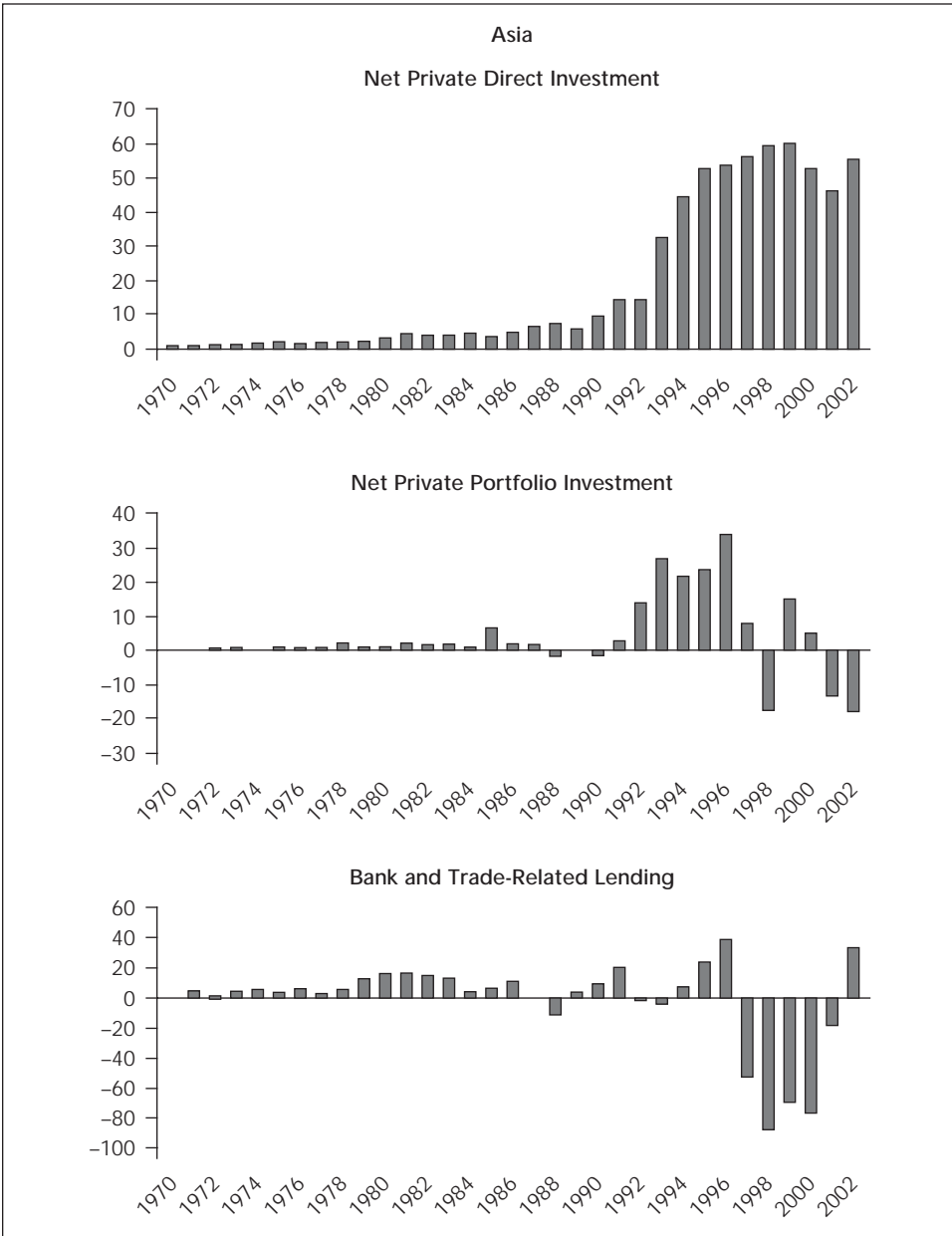
FIGURE 1.
Private Capital Flows to Emerging Markets (billions of U.S. dollars)



Note: The economies comprising Asia are Bangladesh, China, Hong Kong (China), India, Indonesia, Korea, Malaysia, Pakistan, the Philippines, Singapore, Taiwan (China), Thailand, and Vietnam. The economies comprising Latin America are Argentina, Brazil, Chile, Colombia, the Dominican Republic, Ecuador, Guatemala, Mexico, Peru, Uruguay, and Venezuela, R. B. de. The countries comprising the transition economies are Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, the Kyrgyz Republic, Latvia, Lithuania, Macedonia, FYR, Moldova, Mongolia, Poland, Romania, the Russian Federation, Serbia and Montenegro, the Slovak Republic, Slovenia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.

Source: *World Economic Outlook* (various years).

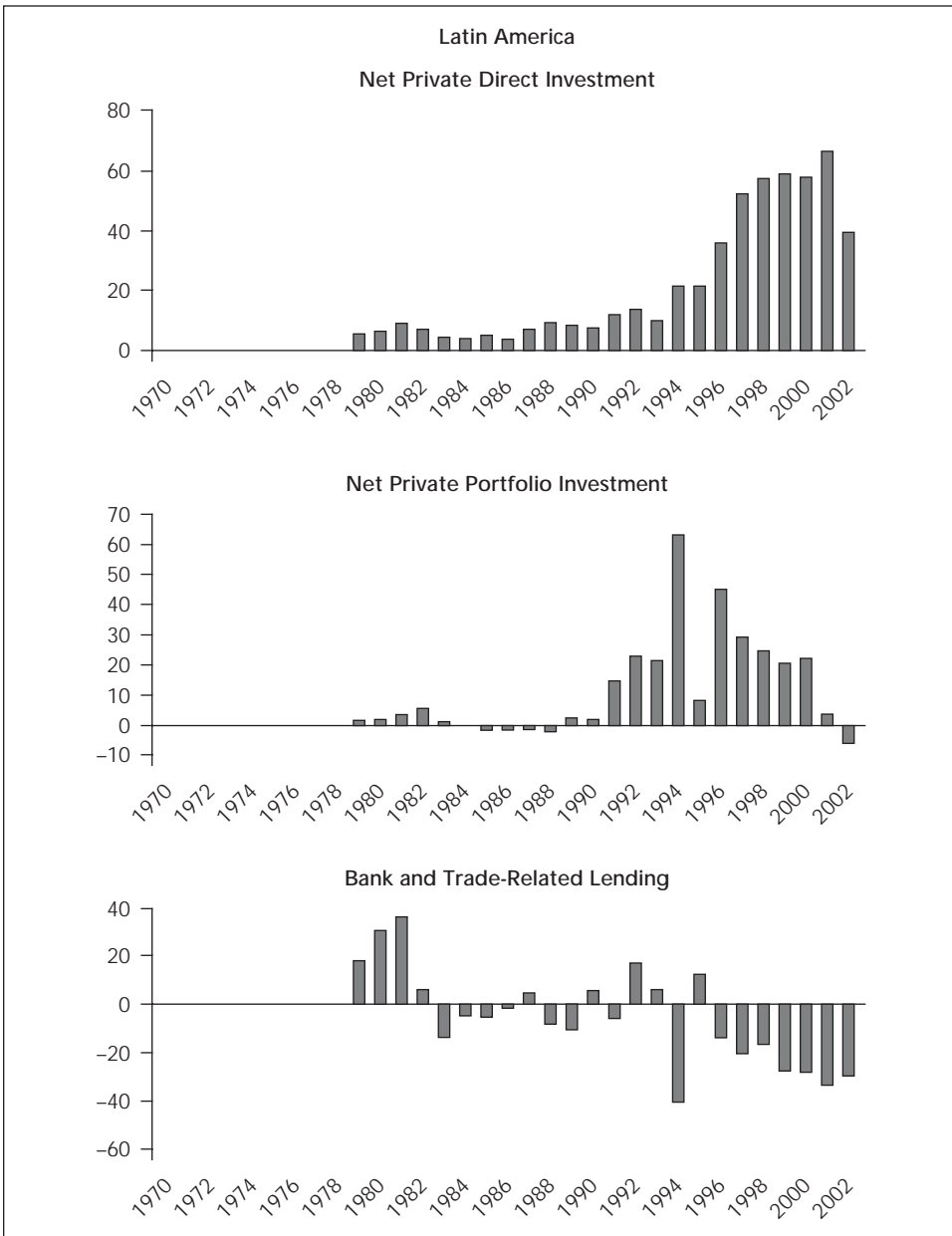
FIGURE 2A.
Composition of Private Capital Flows to Emerging Markets
(billions of U.S. dollars)



Note: See note for figure 1.

Source: World Economic Outlook (various years).

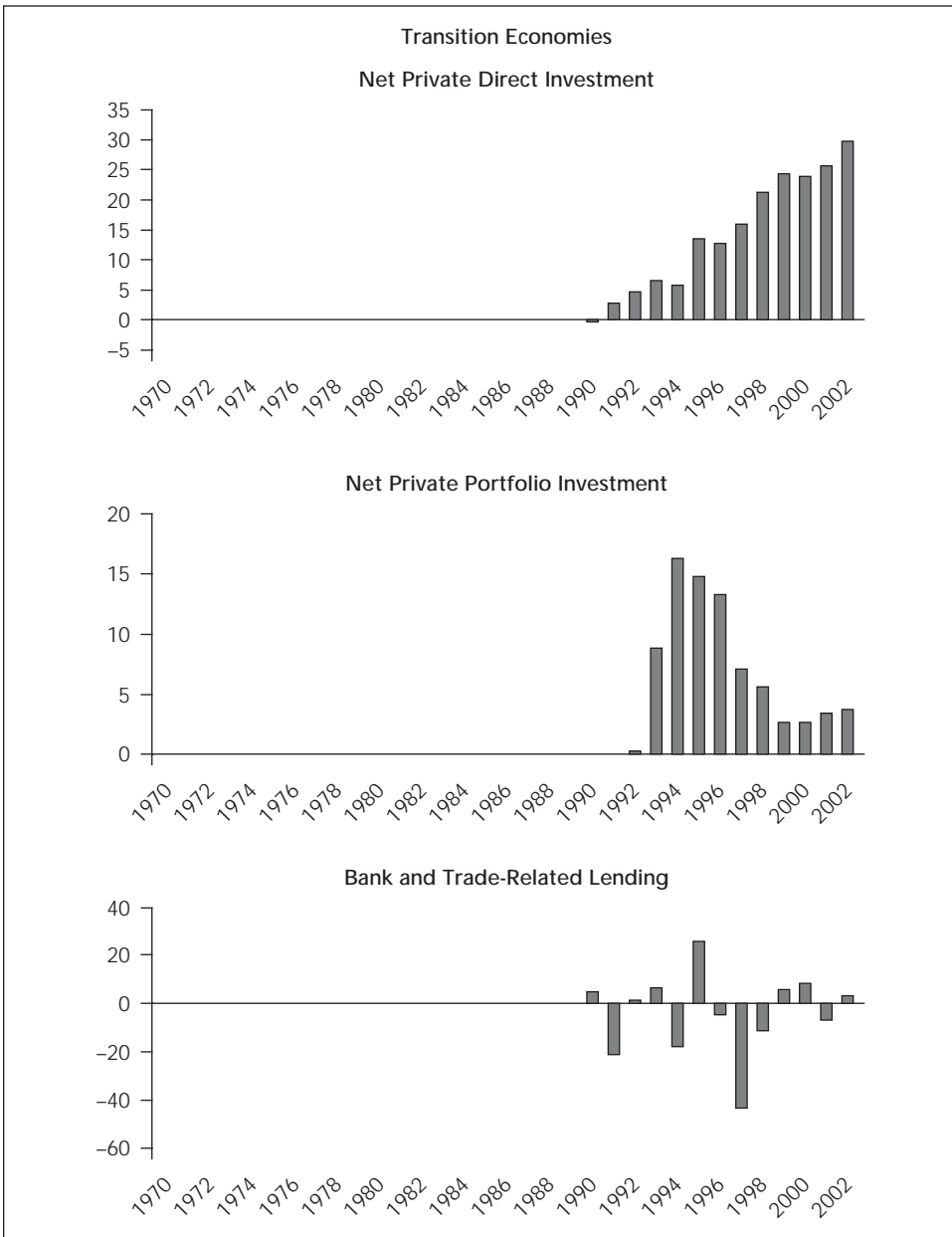
FIGURE 2B.
Composition of Private Capital Flows to Emerging Markets
(billions of U.S. dollars)—continued



Note: See note for figure 1.

Source: World Economic Outlook (various years).

FIGURE 2C.
Composition of Private Capital Flows to Emerging Markets
(billions of U.S. dollars)—continued



Note: See note for figure 1.

Source: World Economic Outlook (various years).

While FDI constituted the largest share of capital flow to Asia and Latin America, portfolio investment (bonds and equity) also increased substantially, accounting for about 40 percent of total capital flows in the mid-1990s. In absolute values, bond and equity flows to Asia (excluding those counted as FDI) increased to US\$33 billion in 1996 while those to Latin American peaked at US\$63 billion in 1994.

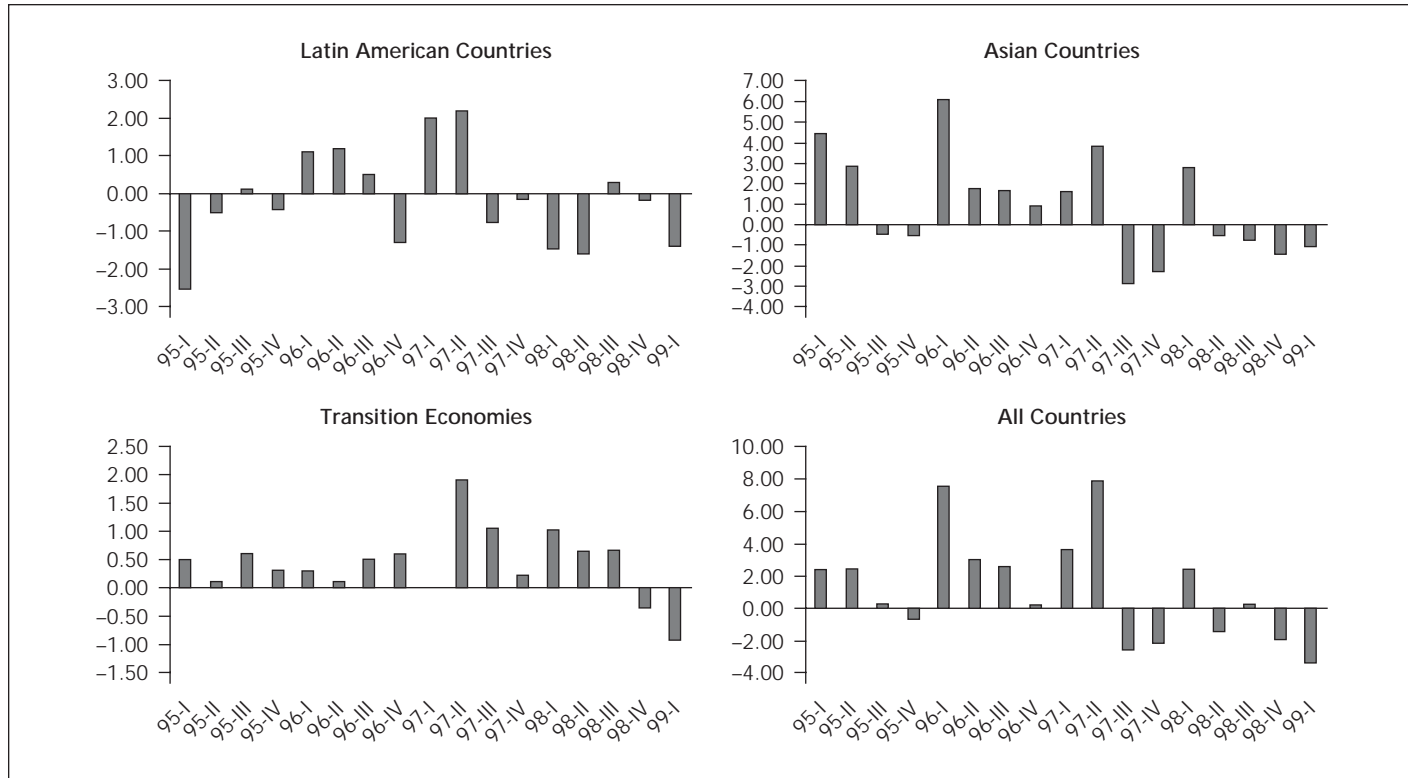
Again in the 1990s, as in the 1980s, booms were followed by capital flow reversals. The first reversal occurred in the immediate aftermath of Mexico's currency crisis in December 1994. In this case, capital flows resumed for most countries within one year and returned to their peak values soon thereafter. Moreover, in the aftermath of that crisis, capital flows to Asian economies were basically not affected, with the crisis confined to a small number of Latin American countries. The second, more severe, reversal came in 1997 during the Asian crisis. This reversal was later aggravated by the Russian default in August 1998 and the Brazilian crisis in 1998–9. This time the collapse in capital flows was more pronounced and long lasting. The reversal was similar in magnitude to the one after the Latin American debt crisis, with total capital flows to Latin America declining about 20 percent in 1999 and declining a further 32 percent in 2001. The sudden stop in capital flows to Asia was more pronounced, with total capital flows declining from US\$123 billion in 1996 to \$12 billion in 1997. The reversal of short-term portfolio flows to Asia (bonds, equities, and bank lending) was even more brutal, with flows in these categories declining from an inflow of \$69 billion in 1996 to an outflow of \$104 billion in 1998. In Latin American, short-term capital flows declined from about a \$30 billion inflow in 1996 to about a \$31 billion outflow in 2001.²

Finally, the evidence from transition economies is similar to that of Asia and Latin America. In the early 1990s, capital flows boomed, with a peak in 1995 at \$51 billion. Also as in Asia and Latin America, portfolio bond and equity flows and bank lending suffered a profound reversal in the late 1990s. Only by 2003 had capital flows to all emerging markets resumed, following the decline in interest rates in industrial countries.

The Behavior of Mutual Funds

The booms and busts in international capital flows have brought international investors into the limelight. Often international investors are seen as the main culprits of financial market instability; they have even been the subject of attacks by government officials. Many have argued that, more often than not, international investors panic and withdraw funds from countries with sound fundamentals. Assessing the behavior of international investors has been a daunting task because data on international investors' portfolios are almost nonexistent. Only recently, a novel databank on mutual funds portfolios provided by Emerging Market Funds Research, Inc., has become available for research. This databank covers the positions of nearly 1,400 international emerging market equity funds, with an average position of about \$120 billion in 1996. It includes U.S. registered and offshore funds as well as funds

FIGURE 3.
Mutual Funds: Quarterly Flows to Emerging Countries (billions of U.S. dollars)



Note: Latin American countries include Argentina, Brazil, Chile, Colombia, Mexico, Peru, Venezuela. Asian countries include China, Hong Kong, India, Indonesia, Korea, Malaysia, Pakistan, Philippines, Singapore, Sri Lanka, Taiwan, Thailand. Transition economies include Czech Republic, Hungary, Poland, Russia & CIS, Slovak Republic.

Source: Kaminsky, Lyons, and Schmukler (2002).

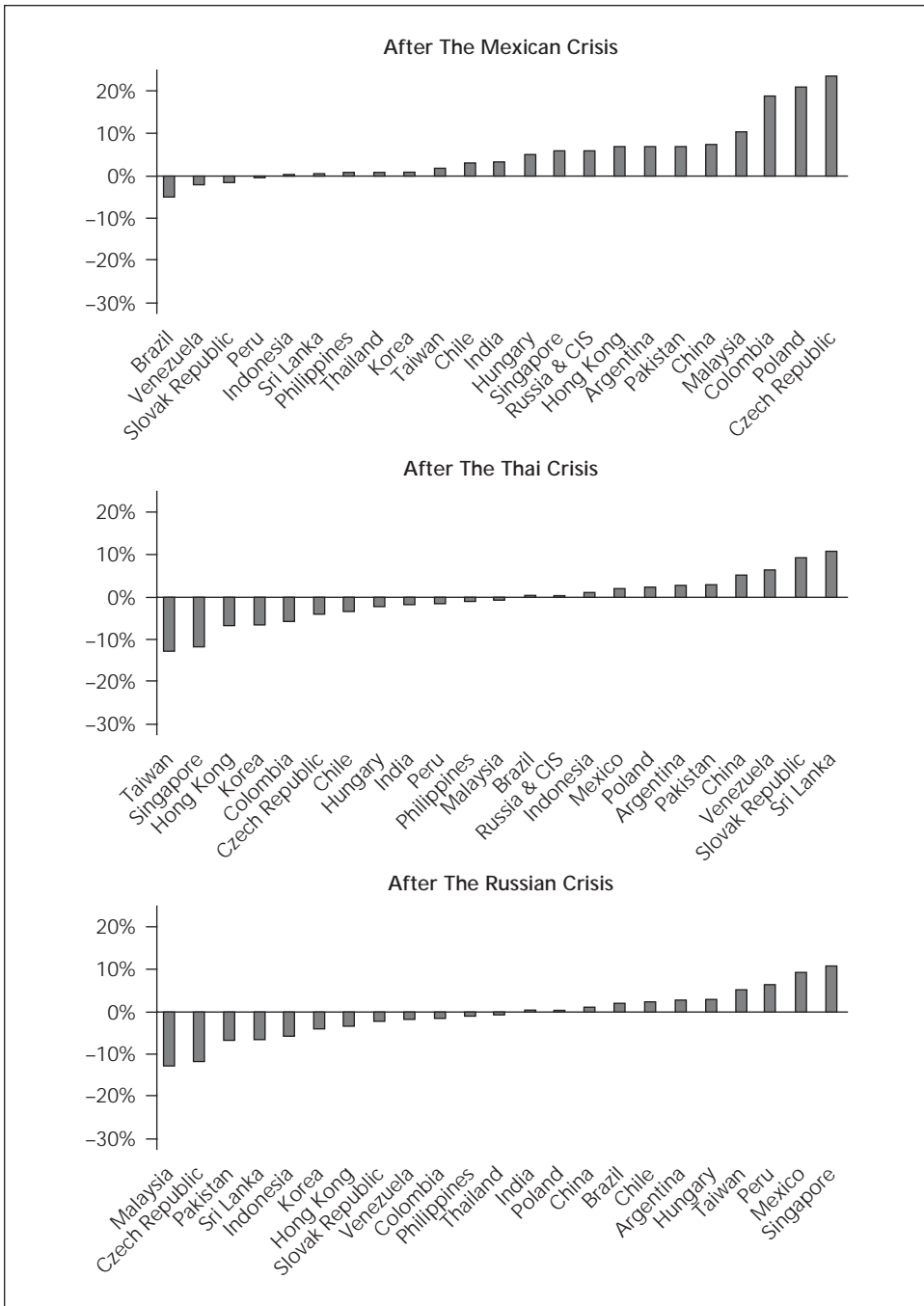
registered in Luxembourg, the United Kingdom, Ireland, Cayman Islands, Canada, and Switzerland. It includes both open and closed-end funds. The dataset starts in 1995. Kaminsky, Lyons, and Schmukler (2001) and Borenzstein and Gelos (2003) have used this dataset to study the behavior of funds specializing in emerging markets. In particular, they study whether domestic fragility is at the heart of portfolio decisions of mutual fund managers or whether mutual funds just herd together. I now discuss their findings.

Kaminsky, Lyons, and Schmukler describe the evolution of mutual funds in Asia, Latin America, and transition economies and then examine the determinants of mutual fund flows to these regions. Figures 3 and 4 and table 1 reproduce their findings. Figure 3 shows the average quarterly net flows to these regions from 1995 to 1999. Mutual fund flows to emerging markets peaked in the second quarter of 1997, reaching about \$8 billion. Overall, booms in mutual fund flows were followed by reversals. Reversals were not persistent after the Tequila crisis. Outflows from Latin America reached about \$4 billion in 1995, but mutual funds increased their positions in Latin America by about \$2 billion just in the first half of 1996. The Tequila crisis did not have any spillovers in Asia or in transition economies. In fact, flows to Asia ballooned to almost \$11 billion in 1996, while flows to transition economies remained stable throughout 1995–6. The picture changes after the Asian crisis. This time, mutual funds pulled out not only from Asia but from Latin America as well, with net outflows in this last region reaching about \$1 billion in the six months following the collapse of the Thai baht. Mutual fund withdrawals took a turn for the worse in 1998, reaching about \$4 billion in Asia and also in Latin America, with substantial outflows from transition economies after the Russian crisis.

Figure 4 assesses the problem of the sudden stops in times of financial turmoil. It reports the average quarterly flows (as a percent of mutual funds' initial positions) to countries in Asia and in Latin America, as well as to transition economies in the two quarters following three crises. The top panel looks at the aftermath of the Mexican devaluation in December 1994, the middle panel examines the aftermath of the collapse of the Thai baht in July 1997, and the bottom panel studies the aftermath of the Russian devaluation and moratorium in August 1998. To capture the magnitude of the sudden-stop syndrome, this figure reports total flows relative to the average flow (also in percent of their initial positions) during the whole sample (1995–9). For example, following the Mexican devaluation, mutual funds sold about 5 percent of their Brazilian positions (relative to their average quarterly buying/selling during 1995 to 1999). Thus, as shown in the first panel in figure 3, Brazil experienced unusual withdrawals of about 5 percent in the aftermath of the Mexican devaluation. As shown in the last panel, Malaysia was the country most affected in the aftermath of the Russian crisis, with abnormal outflows of approximately 30 percent.

As discussed in Kaminsky, Lyons, and Schmukler (2001), the extent of the mutual fund sudden stop in the aftermath of the three crises was substantially different. The so-called Tequila crisis was circumscribed to Latin America. Moreover, “abnormal” mutual fund withdrawals in the aftermath of the collapse of the Mexican peso were confined to a handful of Latin American countries, with only Brazil and República

FIGURE 4.
Mutual Fund Flows: Global Spillovers



Note: The Mexican crisis happened in late December of 1994. The Thai crisis erupted in July 1997. The Russian crisis began in August 1998. Mutual funds flows are the average net buying/selling (as percentage of the end of the preceeding quarter holdings) in the two quarters following the outbreak of the crisis, relative to the sample average.

Source: Kaminsky, Lyons, and Schmukler (2002).

TABLE 1.
The Behavior of Mutual Funds During Crises

| The Mexican Crisis | | | |
|---------------------------------|---------------------------|--------------------------|------|
| Region | Percent of Countries with | | |
| | Fragility | Liquid financial markets | Risk |
| Asia | | | |
| With mutual fund withdrawals | n.a. | n.a. | n.a. |
| Without mutual fund withdrawals | 0 | 42 | 25 |
| Latin America | | | |
| With mutual fund withdrawals | 67 | 33 | 67 |
| Without mutual fund withdrawals | 0 | 67 | 33 |
| Transition Economies | | | |
| With mutual fund withdrawals | n.a. | 0 | 0 |
| Without mutual fund withdrawals | 33 | 75 | 50 |
| The Thai Crisis | | | |
| Region | Percent of countries with | | |
| | Fragility | Liquid financial markets | Risk |
| Asia | | | |
| With mutual fund withdrawals | 43 | 86 | 29 |
| Without mutual fund withdrawals | 25 | 0 | 25 |
| Latin America | | | |
| With mutual fund withdrawals | 75 | 50 | 25 |
| Without mutual fund withdrawals | 0 | 100 | 0 |
| Transition economies | | | |
| With mutual fund withdrawals | 100 | 100 | 33 |
| Without mutual fund withdrawals | 0 | 50 | 0 |
| The Russian Crisis | | | |
| Region | Percent of countries with | | |
| | Fragility | Liquid financial markets | Risk |
| Asia | | | |
| With mutual fund withdrawals | 40 | 40 | 60 |
| Without mutual fund withdrawals | 0 | 100 | 0 |
| Latin America | | | |
| With mutual fund withdrawals | 50 | 100 | 0 |
| Without mutual fund withdrawals | 20 | 60 | 0 |
| Transition economies | | | |
| With mutual fund withdrawals | 50 | 33 | 0 |
| Without mutual fund withdrawals | 100 | 0 | 100 |

Note: This table relates the mutual fund withdrawals (injections) of funds to the emerging markets shown in figure 4 with indicators of fragility, liquidity of financial markets, and economic and political risk in those economies.

Source: Kaminsky, Lyons, and Schmukler (2002).

Bolivariana de Venezuela—besides the crisis country, Mexico—suffering average withdrawals of 5 and 2 percent in the two quarters following the devaluation. In contrast, mutual funds increased their exposure to Asian countries and transition economies, with (above-trend) flows oscillating at around 4 percent for Asia and 11 percent for the transition economies.

The aftermath of the collapse of the Thai baht presents a different picture of the international mutual funds industry. It is in this episode that we first observe signs of a more general retrenchment of mutual funds in emerging markets. Mutual funds flows to Asian economies were basically all well below trend in the two quarters following the collapse of the Thai baht. Only flows to China, Pakistan, and Sri Lanka were above average. Interestingly, after the collapse of the Thai baht, we observe substantial withdrawals from Hong Kong (China), Singapore, and Taiwan (China), with average quarterly withdrawals oscillating at about 12 percent above average for Singapore and Taiwan, and about 7 percent for Hong Kong. The retrenchment this time also reached Latin America and the transition economies, with withdrawals reaching about 6 percent for Colombia and 4 percent for the Czech Republic during the two quarters following the outbreak of the Thai crisis. Colombia, the Czech Republic, Chile, Hungary, and Peru were the countries most affected in this episode, with sales averaging about 3 percent above average.

The flight away from emerging markets became more pronounced during the Russian crisis, with about half of the countries in the sample experiencing abnormal sales of about 10 percent or even larger. In some cases, withdrawals were massive. For example, average mutual funds sales (relative to trend) in Malaysia reached 30 percent; in the Czech Republic they were on the order of 16 percent. Some Latin American countries were also dramatically affected in the aftermath of the Russian collapse. For example, Colombia and República Bolivariana de Venezuela suffered average quarterly outflows of about 8 percent. Mutual funds investments in Mexico and Peru were the only ones that did not suffer following the worldwide turmoil triggered by the Russian default. In fact, inflows to Mexico were 5 percent above the average observed in the 1995–9 period.

Kaminsky, Lyons, and Schmukler (2001) also examine in detail why some countries were severely affected by mutual fund withdrawals but others were left unscathed. Three factors are examined: economic fragility, liquidity of financial markets,³ and economic and political risk.

- Fragility is captured using a composite leading indicator of crises from Kaminsky (1998). A total of 18 indicators are combined according to their forecasting accuracy to capture financial, external, and real vulnerabilities in each country. A country or economy is classified as fragile if the probability of a crisis (conditional on the information of the composite indicator) is larger than 50 percent, and classified as healthy otherwise.
- Liquidity is captured with four indicators. The first two are the volume traded in the stock market and the share of the mutual funds portfolio in each country at the onset of the crisis. These two indicators provide two different pictures of liquidity of financial markets. The first provides an overall measure of size and

depth of the stock market. The second is related to mutual funds liquidity in each country, since investors cannot sell in countries in which they have basically no exposure. The third indicator dates the time when firms in emerging markets start to trade in mature and more liquid financial markets. The fourth indicator captures the ability of investors to rapidly change their portfolio in a particular country. In particular, this last indicator evaluates the extent of restrictions to capital mobility in each country. Restrictions could be adding “sand in the wheel” of capital markets and thus are curtailing liquidity.⁴

- Finally, the risk indicator captures both political and economic uncertainty. The political risk indicator captures uncertainty that is a result of expected changes of authorities or of future policy actions. It also identifies when there is widespread social unrest. The indicator also captures economic risk, such as imposition of restrictions to capital mobility in response to crises. A country is classified as risky when there is at least either political or economic risk.

Table 1 shows the characteristics of countries that suffer abnormal withdrawals and injections in the aftermath of the three crises.⁵ The table groups the countries into three regions: Asia, Latin America, and transition economies. As shown in the first column, countries with fragile economies constitute the bulk of the countries that suffer withdrawals. For example, during the Mexican crisis, Latin America was the only region that suffered withdrawals. Interestingly, 67 percent of the countries that suffered withdrawals in this episode were also countries with deteriorated fundamentals. Again, during the Thai crisis, at least 75 percent of the countries that suffered withdrawals in the transition-economies group and Latin America were countries with economic vulnerabilities. Similarly, 43 percent of the Asian countries affected by abnormal withdrawals also had deteriorated economies. For example, the Republic of Korea, Colombia, the Czech Republic, and Chile suffered high withdrawals in the aftermath of the Thai crisis, and both the Czech Republic and Korea were among the top two most vulnerable countries in the sample of 25 countries during the Asian crisis (Thailand ranked fourth and Colombia ranked sixth). In contrast, those that did not experience mutual fund withdrawals were overall less fragile.⁶

Domestic fragilities were not the only explanation of the sudden-stop syndrome, however. For example, China did not suffer even a mild hiccup in the midst of the Asian crisis, even when devaluation fears were widespread among investors and the vulnerability of its financial system was widely known. In contrast, Singapore, Taiwan (China), and Hong Kong (China) suffered pronounced capital-flow reversals even when their economies looked far healthier than that of China. These countries have the most liquid financial markets in the region. Overall, 86 percent of the economies in the Asian Pacific region that suffered withdrawals were those with quite liquid financial markets. In contrast, all the countries in that region unaffected by the Thai crisis had illiquid financial markets. Finally, risk had also an important role, with 40 percent of the economies most affected by withdrawals also experiencing political and economic risk. For example, in 1994, in the midst of the banking crisis, República Bolivariana de Venezuela abandoned convertibility. Far from discouraging capital outflows, the implementation of restrictions to capital mobility seems to have

also contributed to the fire sales of Venezuelan assets. Malaysia was the country that suffered substantial losses in the aftermath of the Russian crisis. Interestingly, the withdrawals may have been triggered by the increased risk—perceived or real—associated with the country. It was in the aftermath of the Russian crisis that Malaysia introduced outright controls on capital outflows.

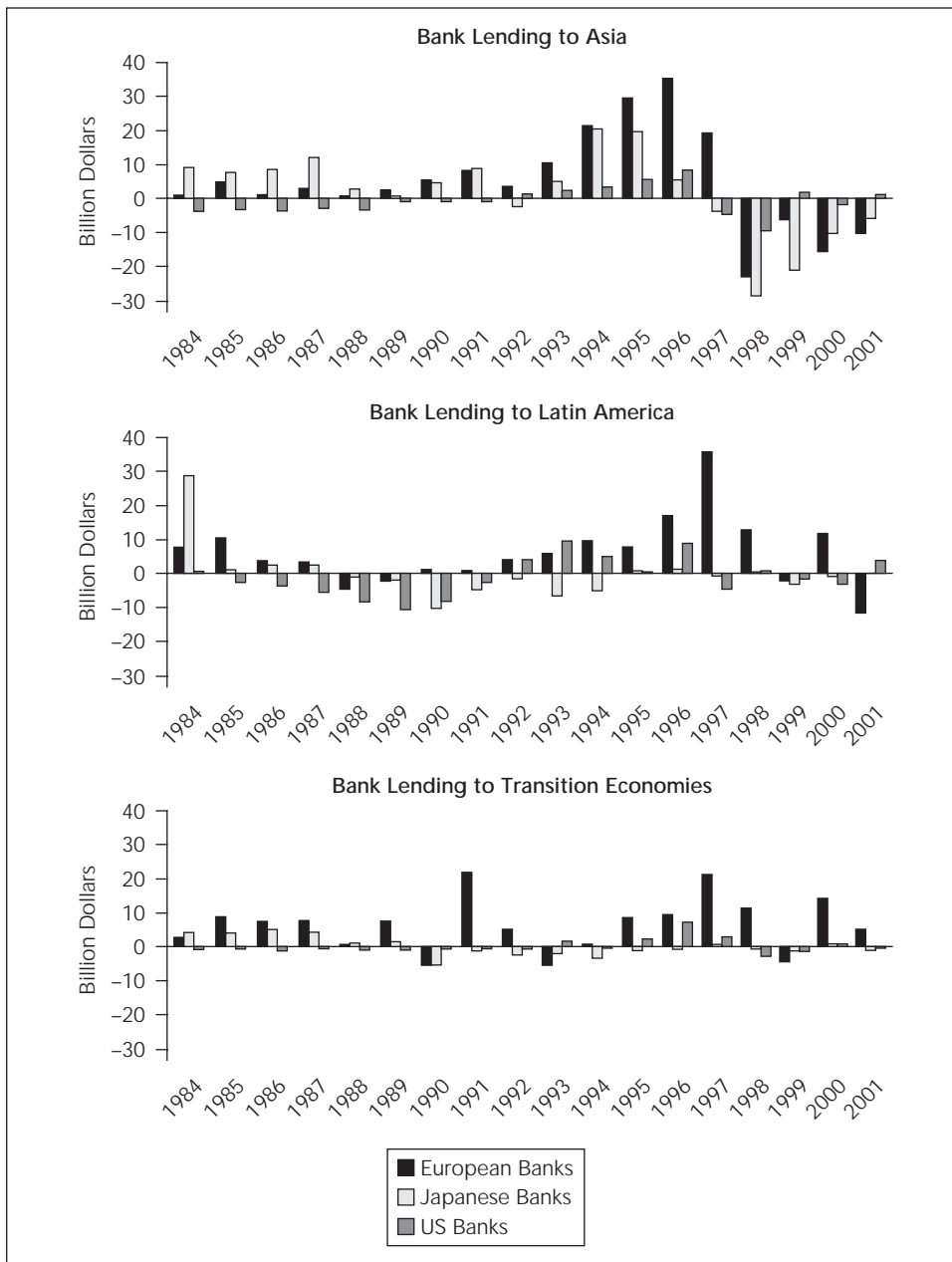
Borenzstein and Gelos (2003) provide us with complementary results to fully characterize the behavior of mutual funds in emerging markets. The authors examine whether mutual funds follow herding strategies using the Lakonishok, Shleifer, and Vishny (1992) measure of herding. This measure allows an assessment of whether funds move in the same direction more often than one would expect if they traded independently and randomly. Borenzstein and Gelos' results suggest that mutual funds do herd together. In particular, they find that, for a given country, the number of funds moving in the same direction was approximately 8 percent larger than one would have expected if they acted independently. Herding is less pronounced among closed-end funds, suggesting that herding behavior might be traceable to the behavior of individual investors rather than fund managers. Finally, herding in some crisis episodes was also more pronounced. For example, at the onset of the Brazilian crisis, herding on Brazilian assets increased to 15 percent.

The Behavior of Banks

As shown in the second section, bank-related lending has been quite volatile in the last three decades. This section examines the role of European, Japanese, and U.S. banks in spreading the crises of the 1990s. I use BIS Consolidated Banking Statistics to examine the role of the three international banking clusters. In particular, I look at international claims of reporting BIS banks in emerging economies. I should note that it is not possible to isolate total cross-border claims. International claims include both total cross-border claims and local claims in foreign currency booked by foreign offices. The difference between total cross-border claims and international claims is quite wide for countries with highly dollarized economies and with an important presence of foreign banks, such as Latin American countries.

As shown in figure 5, throughout most of the early 1990s, bank flows were pouring into Asia; they accelerated following the Mexican crisis. Bank loans to emerging Asia expanded by 89 percent from June 1994 to June 1997. Part of the rise in lending was the result of the European banks' goal to achieve a higher profile in emerging markets, particularly in the Republic of Korea. Much of the lending boom, especially in the case of Thailand, Indonesia, and Korea, was also owing to a rapid expansion in credit from Japanese banks. Faced with a slumping economy and little domestic loan demand, Japanese banks increasingly looked overseas to the rapidly growing economies of Southeast Asia as potential borrowers. In contrast, U.S. bank lending to Asia was modest throughout the eve of the crisis. By June 1997, the U.S. banks' positions in emerging Asia had only reached \$32 billion and accounted for only 20 percent of all U.S. bank lending to developing countries. In contrast, by the onset of

FIGURE 5.
International Bank Lending, 1984–2001



Note: Asia includes Afghanistan; Armenia; Azerbaijan; Bangladesh; Bhutan; British Overseas Territories; Brunei; Cambodia; China; Fiji; French Polynesia; Georgia; India; Indonesia; Kazakhstan; Kiribati; Kyrgyz Republic; Lao PDR; Macau; Malaysia; the Maldives; Mongolia; Myanmar; Nauru; Nepal; New Caledonia; Korea, Democratic People's Republic of; Korea, Rep. of; Pakistan; Papua New Guinea; the Philippines; Samoa; Solomon Islands; Sri Lanka; Taiwan (China); Tajikistan; Thailand; Tonga; Turkmenistan; Tuvalu; U.S. Pacific Islands; Uzbekistan; Vietnam; and Wallis Futuna.

Latin America includes Argentina, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, the Falkland Islands, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Paraguay, Peru, St. Lucia, St. Vincent, Surinam, Trinidad and Tobago, Turks and Caicos, Uruguay, and Venezuela, R. B. de.

Transition economies include Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, German Democratic Republic, Gibraltar, Hungary, Latvia, Lithuania, Macedonia, Malta, Moldova, Poland, Romania, Russian Federation, Serbia and Montenegro, the Slovak Republic, Slovenia, Soviet Union, Turkey, and Ukraine.

the Thai crisis, Japanese banks had an exposure to Asia four times as much as U.S. banks (\$124 billion). European bank lending to emerging Asia was also significant. By the onset of the Thai crisis, the exposure of European banks to Asia had already surpassed that of Japanese banks, reaching \$161 billion. European banks' exposure to emerging Asia accounted for about half of all their lending to emerging markets; Korea alone accounted for 40 percent of their lending to the developing world.

Japanese banks, heavily exposed to Thailand, were the first to pull out of emerging Asia. Between June and December of 1997, lending by Japanese banks fell by 8 percent. Instead, European banks, heavily exposed to Korea, started to pull out only after the beginning of the crisis in Korea in November 1997. On net, European bank lending to Asia continued to increase from June to December 1997. By June 1998, however, the reduction in lending to emerging Asia was across the board. Bank lending to Asia fell by \$46 billion, with European banks recalling \$12 billion, Japanese banks \$25 billion, and U.S. banks \$9 billion, respectively.

Figure 5 also reports bank lending to Latin America and transition economies. Exposure to these regions increased sharply in the mid-1990s (in large part driven by the purchase of domestic banks in these regions by European banks), with claims on these regions increasing about 50 percent from June 1994 to June 1998, immediately before the onset of the Russian crisis. During the 1990s, European banks had the largest exposure to these regions, 67 percent to Latin America and 84 percent to transition economies. The Russian crisis led to some withdrawals of Japanese and U.S. banks from both regions. That was not the case of European banks, which acquired local banks. Still, lending to Latin American by European banks peaked in December 2000 and has not recovered since.

Figures 6, 7, and 8 tally country-by-country bank flows originating in European, Japanese, and United States banks in the aftermath of the Mexican, Thai, and Russian crises. Each figure focuses on the year following the crisis. Figure 6 shows that—with the exception of Mexico, and República Bolivariana de Venezuela, which had a banking crisis of its own making—Latin American countries did not suffer reversals in bank lending following the Mexican crisis. Moreover, within a year of the crisis lending Latin America recovered and even surpassed the levels observed before the crisis. Brazil was the prime beneficiary of bank flows during 1995, with lending from European and U.S. banks reaching \$15 billion. Even in the case of Mexico and República Bolivariana de Venezuela, withdrawals were not across the board. Only U.S. banks recalled loans from these countries. Figure 6 also shows that in Asia, the major recipients of capital flows in 1995 were Korea, Thailand, and Indonesia.

Figure 7 shows the behavior of bank lending in the aftermath of the Thai crisis. In contrast to the Tequila crisis, the Thai crisis triggered major reversals in bank flows from banks in Europe, Japan, and the United States. Thailand, Korea, Indonesia, and Malaysia were the countries that suffered major withdrawals. Still, contagion was only regional in nature, with basically all Latin American countries and, to a lesser degree, transition economies continuing to have uninterrupted access to bank lending.

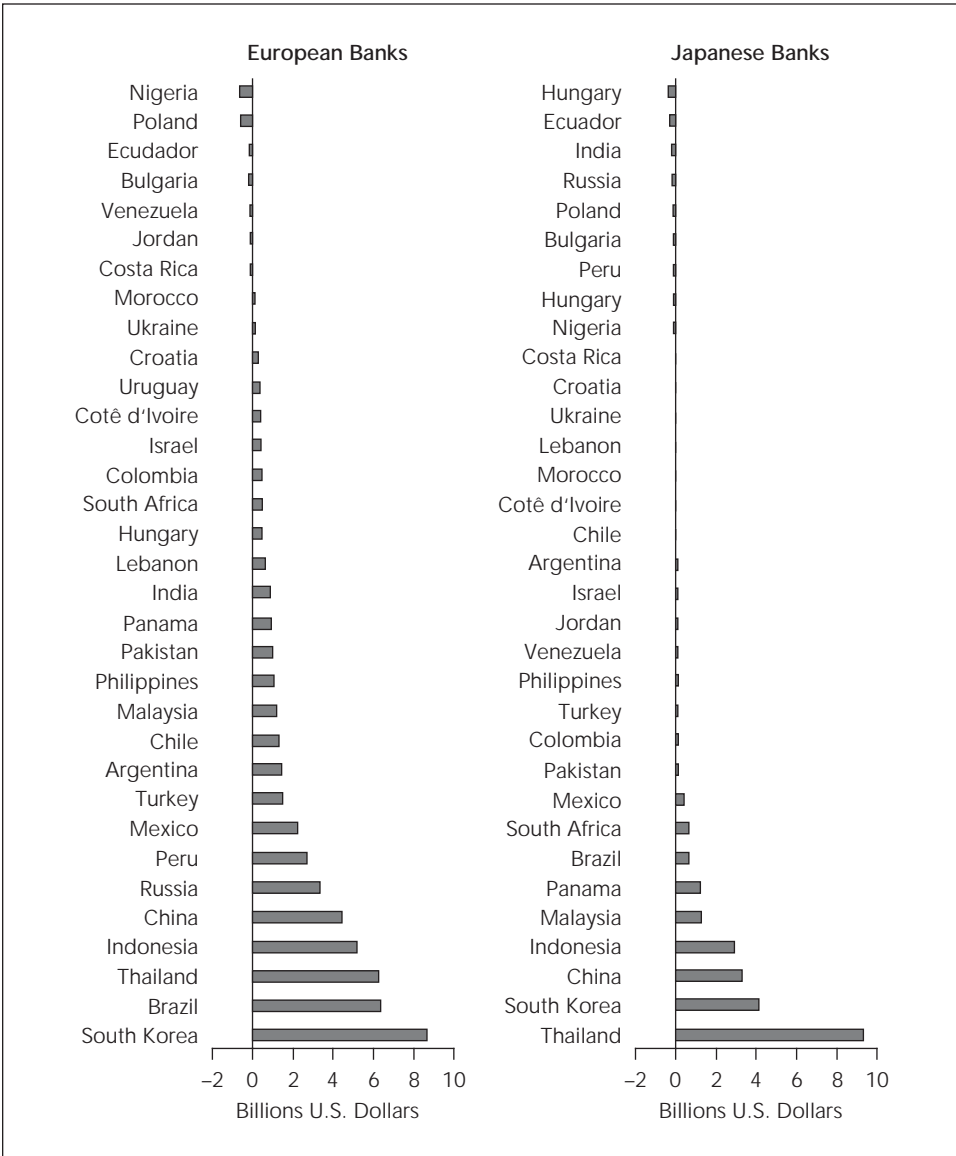
Figure 8 presents the spillovers from the Russian crisis. As it was the case with mutual funds, the reversal in bank lending following the Russian default was not restricted to Russia or neighboring countries. This time, the reversal was more widespread and affected countries as far apart as Brazil, South Africa, and Russia. Although Japanese banks continued to recall loans from Thailand, Indonesia, and Korea, reversals were not restricted to these countries alone. Japanese banks also recalled loans from Brazil, Mexico, India, and South Africa. So did U.S. banks.

While the evidence just presented suggests that international banks were at the center of financial contagion in the late 1990s, more formal evidence is presented in Kaminsky and Reinhart (2000), Caramazza, Ricci, and Salgado (2000), and Van Rijckeghem and Weder (2001). Kaminsky and Reinhart (2000) examine contagion during the debt crisis in 1982, the Mexican crisis in 1994, and the Asian crisis in 1997. They examine whether countries that borrow from a common creditor were prey to contagion. Overall, they find that U.S. banks were at the core of the contagion during the debt crisis, and that Japanese banks spread the Thai crisis to Indonesia, Korea, and Malaysia. Van Rijckeghem and Weder (2001) examine the Tequila, Asian, and Russian crises. These authors examine the flows to 31 emerging countries from 17 BIS country–creditor banks. Again the evidence in this paper supports the idea that the degree to which countries compete for funds from common bank lenders is a fairly robust predictor of the incidence of contagion. The extent of contagion was more pronounced during the Asian crisis. During this episode, the estimates indicate that Japanese banks reduced by 30 percent their exposure to emerging markets. Finally, Caramazza, Ricci, and Salgado (2000) extend earlier work on indicators of vulnerability to currency crises by examining the role of financial linkages while controlling for the roles of external and internal macroeconomic imbalances and trade spillovers. Their results indicate that financial links do matter, while exchange rate regimes and controls on capital flows do not seem to matter.

Globalization and Volatility

As discussed in the introduction, the views on the effects of financial globalization could not be more extreme, with ardent defenders of capital controls as Rodrick (1998), Stiglitz (1999), and those who maintain that capital should be allowed to move freely to its most attractive destination (Dornbusch 1998). The rationale for restricting international capital flows is grounded in the belief that market failures and distortions pervade capital markets around the world. One of the most often cited distortions is that of information asymmetries, which are more rampant in international capital markets where geographical and cultural differences make harder the task of obtaining information. Moreover, imperfections in international markets are magnified by the difficulties in enforcing contracts across borders.⁷ With imperfect information, investors may overreact to shocks, withdrawing massively from countries at the first signs of economic problems, or they may become euphoric and pour on capital in quantities beyond those justified by “good” fundamentals.

FIGURE 6A.
Bank Flows: Global Spillovers
After the Mexican Crisis: December 1994 – December 1995



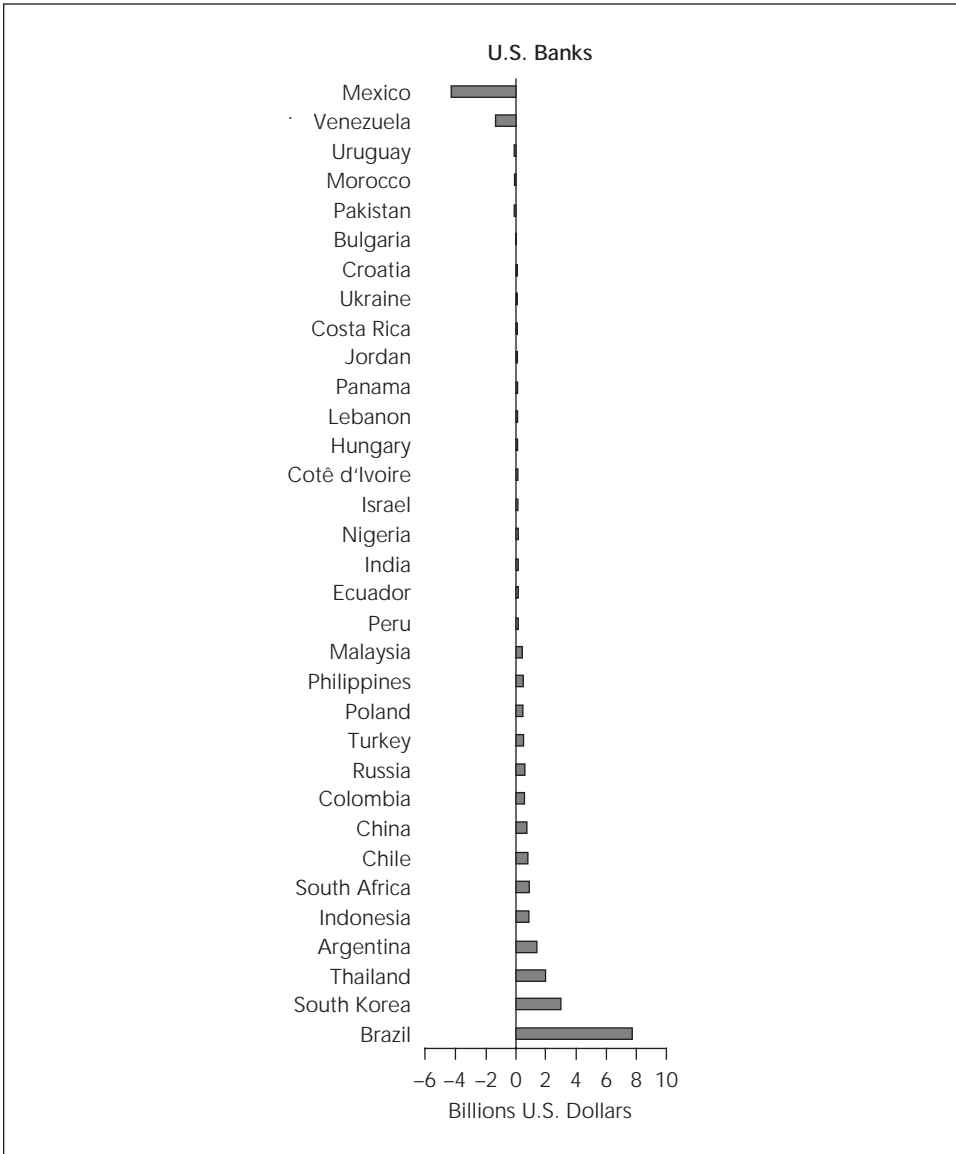
Source: Bank of International Settlements.

Instead, those who consider that international capital markets are efficient favor unrestricted capital movements. It is claimed that financial liberalization helps to improve the functioning of financial systems, increasing the availability of funds and allowing cross-country risk diversification. Moreover, it is also claimed financial integration tends to greatly facilitate economic growth.

FIGURE 6B.

Bank Flows: Global Spillovers

After the Mexican Crisis: December 1994 – December 1995—continued



Source: Bank of International Settlements.

This section will summarize some of the findings in the literature on the effects of globalization on financial markets and the real economy, paying particular attention to the evidence on these conflicting views. In particular, the section will focus on the evidence on short- and long-run effects of financial integration on real and financial volatility.

FIGURE 7A.
Bank Flows: Global Spillovers
After the Thai Crisis: June 1997 – June 1998

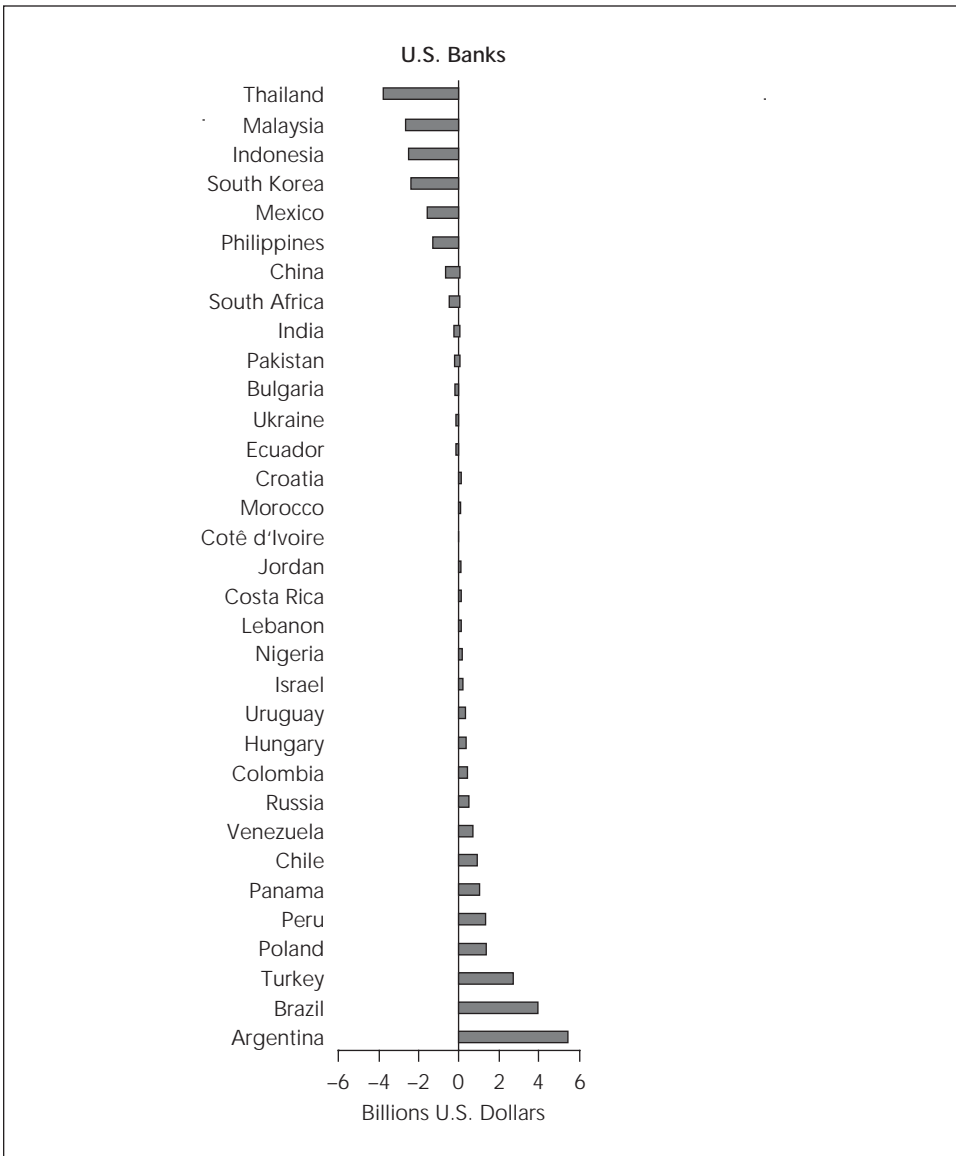


Source: Bank of International Settlements.

Financial Markets

The evidence from the crises of the 1990s suggests that crises are preceded by “excessive” capital inflows that, in turn, fuel large expansions in domestic credit and bubbles in financial markets.⁸ There is also evidence that most episodes of banking crises are preceded by financial liberalization.⁹ To reconcile the evidence that globalization

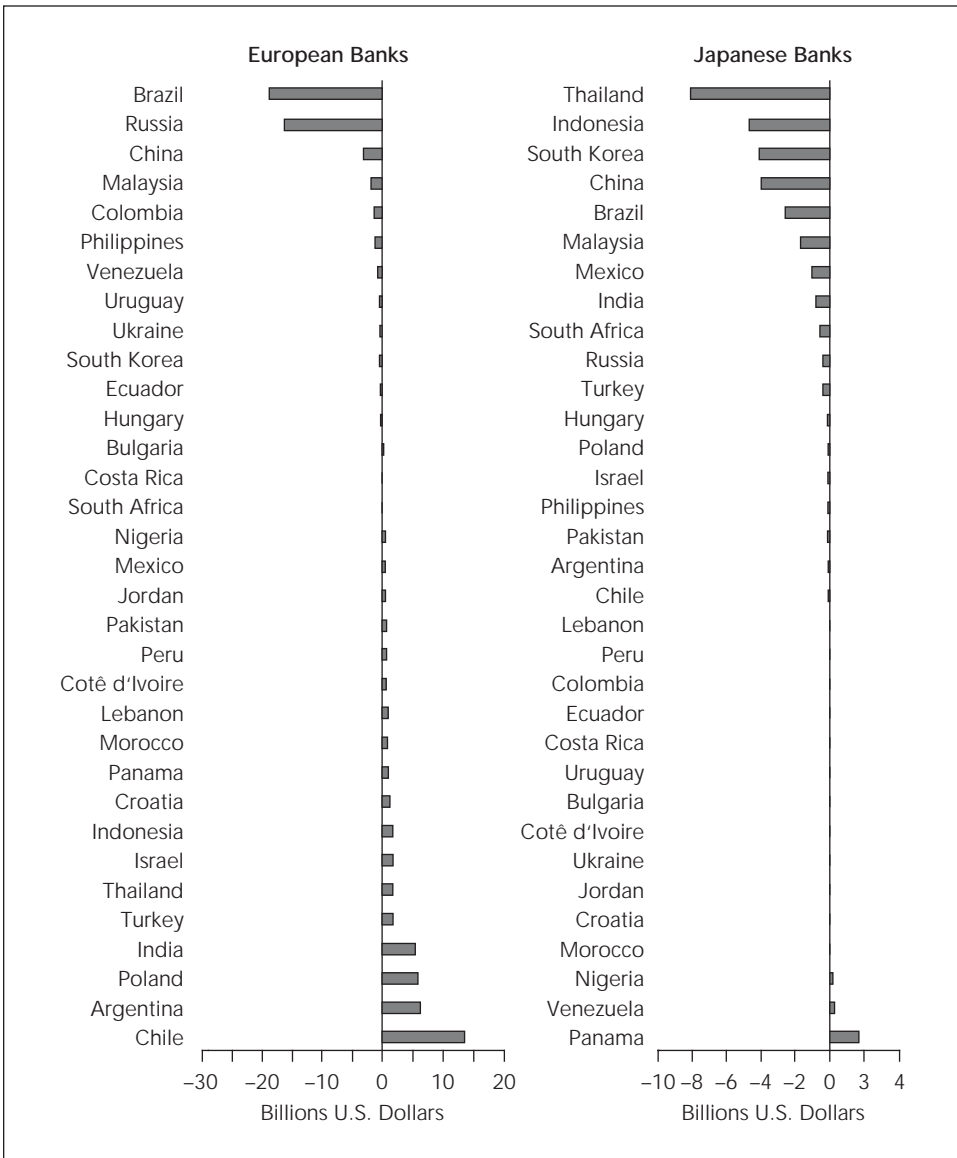
FIGURE 7B.
Bank Flows: Global Spillovers
After the Thai Crisis: June 1997 – June 1998—continued



Source: Bank of International Settlements.

is at the heart of financial crises with the hypothesis that international capital markets allow capital to move to its most attractive destination and promote more stable financial markets, in joint work with Schmukler (Kaminsky and Schmukler 2002) we examine the possible time-varying effects of financial liberalization on cycles in stock market prices.¹⁰ Figure 9 reproduces some of the results in that paper. The figure shows the average amplitude of booms and crashes for fourteen emerging markets¹¹

FIGURE 8A.
Bank Flows: Global Spillovers
After the Russian Crisis: June 1998 – June 1999

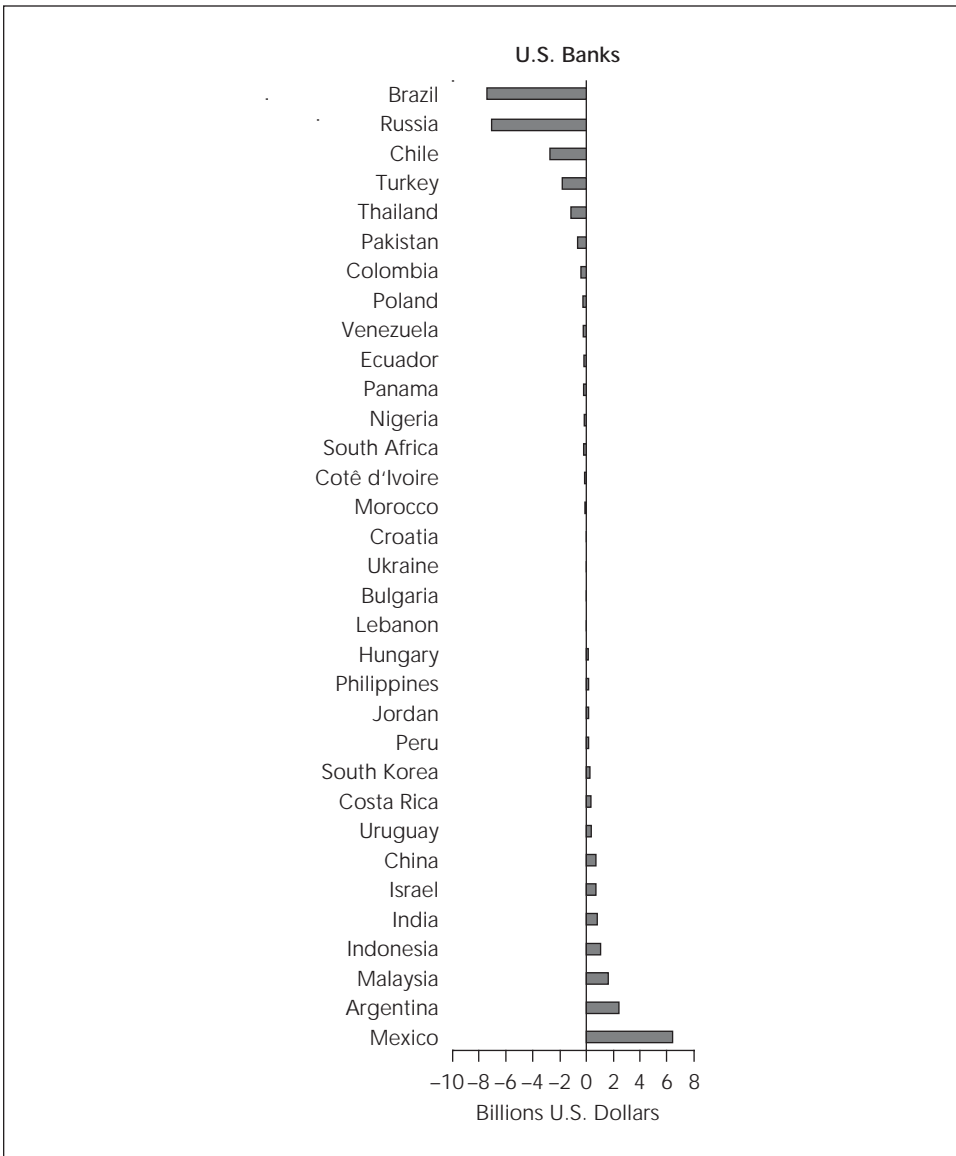


Source: Bank of International Settlements.

during recession times (the medium gray bars), the short-run effects of liberalization (the dark gray bars), and the long-run effects of liberalization (the light gray bars).

The evidence in this figure seems to point out to excessive cycles, with larger booms followed by larger crashes in the immediate aftermath of financial liberalization. But liberalization does not trigger more volatile financial markets permanently: if liberalization persists, stock markets in emerging countries become

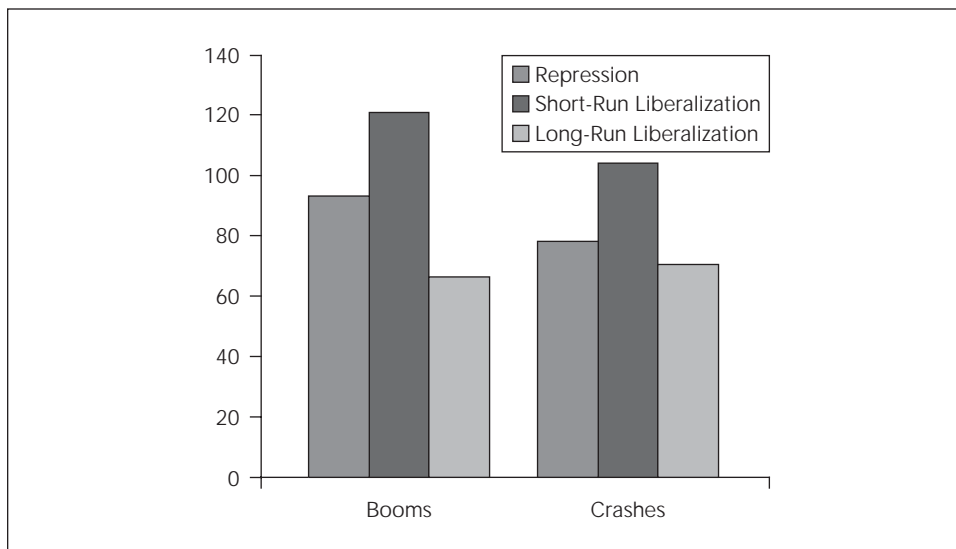
FIGURE 8B.
Bank Flows: Global Spillovers
After the Russian Crisis: June 1998 – June 1999—continued



Source: Bank of International Settlements.

more stable. One possible explanation examined in the paper (using a variety of measures of law and order) is that financial liberalization triggers institutional reforms that make financial markets function better. Interestingly, the evidence for the 14 emerging countries indicates that deregulation indeed preceded institutional reforms. This sequencing may be a result of the actions of domestic investors, with access to international capital markets following deregulation,

FIGURE 9.
Average Amplitude of Booms and Crashes in Stock Prices in Emerging Markets
(in percent)



Source: Kaminsky and Schmukler (2002).

requiring better enforcement rules to continue to invest in domestic financial markets.

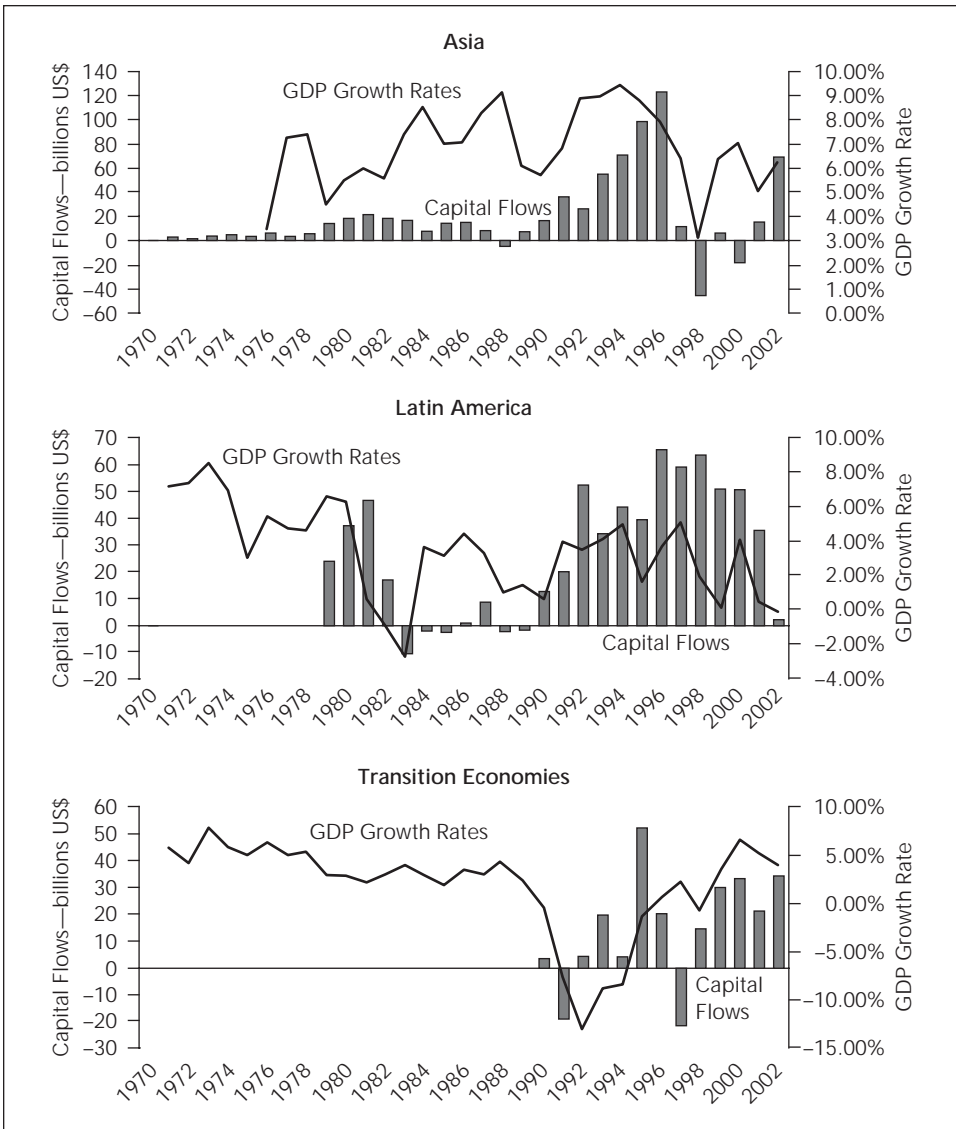
Also, as suggested by Stultz (1999), the liberalization and the gradual integration of emerging markets with international financial markets may help to fortify the domestic financial sector, because foreign investors have overall better skills and information and can thus monitor management in ways local investors cannot. Liberalization, moreover, allows firms to access mature capital markets. Firms listing on foreign stock markets are also in the jurisdiction of a superior legal system and have higher disclosure standard. This will promote more transparency in the management of the firm and can trigger improvements in corporate governance.

Business Cycles and Growth

The previous section examined the short- and long-run effects of globalization on financial markets. The evidence is suggestive of excessive booms and busts in financial markets in developing countries following globalization but of more stable financial markets in the long run if globalization persists. But how do financial cycles affect the economy? This section will examine what we know and what we do not know about the relationship between globalization and business cycle fluctuations and growth.

I first examine the business cycle characteristics of international capital flows. Figure 10 shows international capital flows to emerging markets as well as annual output growth rates. The figure examines separately three regions: Asia, Latin America,

FIGURE 10.
Private Capital Flows to Emerging Markets and GDP Annual Growth Rates



Note: See note for figure 1.

Source: World Economic Outlook.

and transition economies. The panels suggest that capital flows have been procyclical, with large inflows in good times and outflows during recessions. For example, Latin America growth rates oscillated around 4.5 percent in episodes of capital inflows while growth rates were about 1 percent in episodes of sudden stops. Similarly, Asia's economic activity collapsed to about 5.5 percent during the sudden stop in capital flows in the late 1990s, but it grew at an annual growth rate of 8.5 percent in episodes of large capital inflows. This evidence contrasts sharply with the prescription

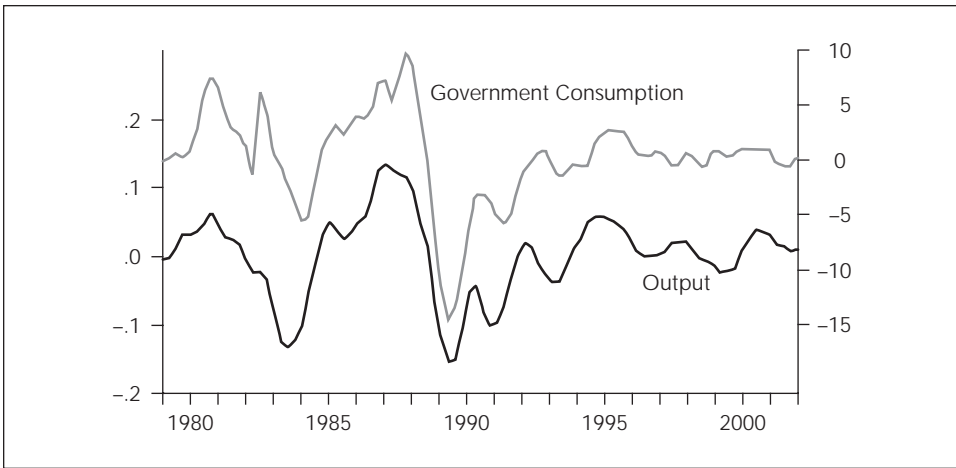
that international capital markets should allow countries to smooth out the business cycle. In contrast, countries seem to have lost access to international credit markets during recessions on a systematic basis.

This nonoptimal behavior of international capital flows has also been studied by Calvo and Izquierdo (2003), who observe that sudden reversal in capital flows to emerging economies lead to large real depreciations and profound downturns. Perhaps what makes these sudden reversals even more devastating is that they seem to trigger contractionary macropolicies. For example, as shown in figure 11, Peru introduced Draconian austerity programs in the early 1980s and in the late 1980s in the aftermath of debt and currency crises. In contrast, the United Kingdom could pursue countercyclical policy in the aftermath of the 1992 European Monetary System currency crisis when the pound was allowed to float. Although Peru lost access to international capital markets, the United Kingdom did not.

These are not isolated cases. As reported in Kaminsky, Reinhart, and Végh (2004), macropolicies tend to be procyclical in developing countries but countercyclical or acyclical in industrialized countries. That is, macropolicies tend to smooth out the business cycle in industrial countries but tend to magnify it in developing countries, as shown in table 2. This table summarizes the results of Kaminsky, Reinhart, and Végh (2004). The left panel reports the correlation between the cyclical components of fiscal and monetary policy with the business cycle. The right panel shows the correlations of the cyclical components of fiscal and monetary policy with net capital inflows. Interestingly, the evidence suggests that international capital flows to developing economies may trigger procyclical macropolicies. For example, government expenditure (inflation tax) is positively (negatively) correlated with net capital inflows—indicating that periods of capital inflows are associated with expansionary fiscal policies, and periods of capital outflows are associated with contractionary fiscal policies. In developing economies, therefore, when it rains, it does indeed pour. While more research is needed, the stylized evidence suggests that international capital flows may trigger more volatile business cycles in emerging economies.

While this evidence points to links between financial integration and output instability over the business cycle, the evidence on the long-run effects of globalization on economic activity suggests that financial integration promotes growth. A variety of authors have examined the effects of domestic and external deregulation of financial markets in emerging economies and found that they overall trigger sustainable growth in the long run. For example, Bekaert, Harvey, and Lundblad (2001) examine the effects on growth of the opening of the stock market to foreign investors in a sample of about 90 developing countries and find that, overall, liberalization triggers an increase in growth of approximately 1 percentage point higher. They find that investment to GDP increases in the aftermath of liberalization, and that factor productivity increases significantly as well. The authors conclude that the effects of liberalization are so strong because not only do they reduce financing constraints but also because foreign investors may insist on better corporate governance, indirectly reducing the cost of external financing.

FIGURE 11.
Non-Foreign Direct Investment and RGDP Growth Rates



Note: These figures show the cyclical component of government consumption and GDP obtained using the band-pass filter. The correlations are the sample correlations.

Note: The countries comprising Asia are Bangladesh, China, Hong Kong (China), India, Indonesia, Korea, Malaysia, Pakistan, the Philippines, Singapore, Taiwan (China), Thailand, and Vietnam. The countries comprising the Transition Economies are Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, the Kyrgyz Republic, Latvia, Lithuania, Macedonia (former Yugoslav Republic of), Moldova, Mongolia, Poland, Romania, Russia, Serbia and Montenegro, the Slovak Republic, Slovenia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan. The countries comprising Latin America are Argentina, Brazil, Chile, Colombia, the Dominican Republic, Ecuador, Guatemala, Mexico, Peru, Uruguay, and Venezuela.

Source: World Economic Outlook.

TABLE 2.
Correlations between the Cyclical Components of Macro Policies, Real GDP, and Net Capital Inflows

| Countries | Correlations with real GDP | | | Correlations with net capital inflows | | |
|-----------|----------------------------|---------------|-----------------------|---------------------------------------|---------------|-----------------------|
| | Fiscal policy | | Monetary policy | Fiscal policy | | Monetary policy |
| | Government expenditure | Inflation tax | Lending interest rate | Government expenditure | Inflation tax | Lending interest rate |
| OECD | -0.13 | 0.16 | 0.23 | 0.03 | 0.04 | 0.19 |
| Non-OECD | 0.33 | -0.15 | -0.05 | 0.20 | -0.16 | -0.06 |

Note: A positive (negative) correlation between government expenditure (inflation tax) and real GDP indicates procyclical fiscal policy. A negative correlation between lending interest rates and real GDP indicates procyclical monetary policy. A positive (negative) correlation between government expenditure (inflation tax and lending interest rates) and net capital inflows indicates that contractionary macropolicies are linked to episodes of low net capital inflows. The cyclical component of the various indicators was obtained using the HP filter.

Source: Kaminsky, Reinhart, and Vegh (2004).

Similarly, Galindo, Micco, and Ordoñez (2002) study whether financial liberalization promotes economic growth by analyzing its effect on the cost of external financing to firms. In particular, their hypothesis is that the liberalization of domestic and external financial markets reduces the cost of external funds faced by firms by reducing the impact of problems associated with moral hazard and adverse selection. From this perspective, the impact of financial development must differ according to the needs of particular firms for external funds. Firms that rely more on external funds will be affected more by financial development than those that require little capital. The results suggest that industries that depend on external finance grow almost 1 percent faster, relative to industries with low external financing dependence, in episodes of globalization compared with their growth in episodes of repression.

Both the paper by Bekaert, Harvey, and Lundblad (2001) and the paper by Galindo, Micco, and Ordoñez (2002) conclude that financial liberalization cannot be the sole reason for new growth opportunities, and suggest that financial liberalization also triggers institutional reform. This theme, also discussed in Kaminsky and Schmukler (2002), is further explored by Gourinchas and Jeanne (2002). These authors distinguish two classes of benefits of financial globalization. The first category includes the benefits in terms of international allocative efficiency, such as consumption smoothing in response to shocks or the possibility of accelerating domestic capital accumulation with the help of foreign capital. The second class of benefits encompasses incentives to good policies or reform that are generated by an open capital account. This includes the market discipline on domestic macroeconomic policies induced by the threat of capital flights. More broadly, it can also include the incentives to reform the domestic economic system in a way that reduces unproductive activities (such as diversion and rent-seeking), or secure better guarantees of property rights. To examine the relative importance of the benefits of international allocative efficiency, the authors calibrate a simple neoclassical growth model of a small open, capital-scarce economy with data on post-World War II emerging economies. Although they do find that the financial openness increases domestic welfare by allowing households to smooth consumption and by the possibility of acceleration of domestic capital accumulation, the benefits are not very large when compared with the benefits of alternative policies that reduce domestic distortions or increase domestic productivity.¹²

Managing International Capital Flows

The evidence seems to suggest that, in the short run, globalization triggers the bankruptcy of the financial systems and protracted recessions. Even if capital inflows do not trigger excess volatility in domestic financial markets, it is still true that they trigger inflation in the presence of a fixed exchange rate regime. Moreover, transitory capital inflows may distort relative prices, with the domestic economy losing competitiveness as a result of the appreciation of the real exchange rate. No wonder policy makers have used a variety of tools to manage these flows, especially if they are of the “hot-money” type. Although in some cases policy makers have introduced

capital controls, they have also resorted to sterilized intervention or have introduced fiscal austerity to help “sterilize” the expansive monetary effects of foreign exchange purchases. The menu of instruments does not end here. Governments have also allowed more exchange rate flexibility to avoid a burst of inflation during the episodes of capital inflows, figuring that if the appreciation of the real exchange rate is unavoidable, it is better that it take place through a nominal appreciation rather than domestic inflation.

Since I have already examined the effects of capital controls, I now focus on the effects of sterilized intervention and exchange rate policy in the presence of large capital inflow episodes, and describe some of the evidence reported in Reinhart and Reinhart (1998). As documented extensively by Calvo and Reinhart (2000), emerging markets mostly peg their domestic currency, floating only in the immediate aftermath of crises. With fixed exchange rate regimes, capital inflows trigger an accumulation of reserves by the central bank and an explosion of the monetary aggregates. To avoid inflation, monetary authorities have to sterilize the effects of the intervention in the foreign exchange market by selling securities in the domestic open market.

Naturally, sterilization can be effective only if domestic and foreign assets are not close substitutes. The evidence for emerging markets suggests that, at most, sterilization has only short-run effects (see Reinhart and Reinhart 1998). Still, many countries have resorted to sterilized intervention. For example, Colombia during most of 1991, Indonesia during 1991–2, and Malaysia during 1991–3 implemented open market operations on a vast scale to fully sterilize capital inflows. Less strongly but still forcefully, the central banks of Chile, Korea, Mexico, the Philippines, and Thailand sterilized in part the capital inflows of the early and mid-1990s. In most cases, domestic short-term interest rates rose when sterilization began, suggesting that policy had an impact, at least in the short run. Interestingly—and at odds with the central banks’ initial purpose—strong sterilized intervention, by triggering large hikes in domestic interest rates, also triggered an increase in the volume of aggregate capital flows, mostly of the “hot money” type.¹³ Another disadvantage of sterilized intervention is that the hikes in domestic interest rates it triggers also increase the cost of capital to the government as central banks acquire relatively low yield foreign exchange reserves and issue high-yield sterilization bonds. In practice, these quasi-fiscal losses are nontrivial. For example, the central bank losses associated with the sterilization effort in Colombia in 1991 reached about 0.6 percent of GDP (see Rodriguez 1991). Similarly, the losses in Chile due to the sterilization attempt during 1990 to 1992 amounted to about 1.4 percent of GDP (see Kiguel and Leiderman 1994).

The explosion of capital inflows to emerging markets in the early and mid-1990s were at first counterbalanced through sterilized intervention. This intervention did manage to avoid nominal appreciations or a hike in inflation. But as the inflows persisted and the foreign exchange reserves continued to accumulate, these policies became quite costly. At this point, central banks in Asia and Latin America allowed the exchange rate to move more freely so that the real appreciation was effected through a nominal appreciation rather than through a hike in domestic inflation. As described in Reinhart and Reinhart (1998), Chile and Colombia allowed several

appreciations in the midst of the capital inflow episode. For example, in January 1992 Chile allowed its currency to appreciate by 5 percent. Again in November 1994, the central bank of Chile allowed the peso to appreciate, this time by 9.5 percent. Similarly, Colombia allowed its currency to appreciate by 5 percent in January 1994 and by 7 percent in November 1994. Chile and Colombia, as well as the Czech Republic and Mexico, also allowed their currency to float somewhat more freely. All these countries widened their exchange rate intervention bands in the early 1990s.

Conclusions

The explosion of capital flows to emerging markets in the early and mid-1990s, and the recent reversal following the crises around the globe, have ignited once again a heated debate on how to manage international capital flows. Capital outflows worry policy makers, but so do capital inflows, because they may trigger bubbles in asset markets and foster an appreciation of the domestic currency and a loss of competitiveness. Policy makers also worry that capital inflows are mostly of the “hot money type,” which is why capital controls have mostly targeted short-term capital inflows. Although capital controls may work, at least in the very short-run, the introduction of restrictions to capital mobility may have undesirable long-run effects. In particular, capital controls protect inefficient domestic financial institutions and thus may trigger financial vulnerabilities.¹⁴ Capital controls may also delay improvements in corporate governance of nonfinancial firms because—as countries liberalize their capital accounts—domestic corporations start participating in international capital markets, mainly through cross listing in major world stock exchanges, with higher disclosure standards and under the jurisdiction of a superior legal system. This certainly promotes more transparency in the management of the firm, and can trigger improvements in corporate governance.¹⁵ Thus, regulation of capital flows may even provoke not only financial vulnerabilities but lower economic growth as well. Policy makers have also resorted to sterilization of capital flows to regain control of monetary policy. Although sterilization may provide some relief, it may also be quite costly to central banks. Moreover, the ability of governments to control international capital flows or to sterilize them diminishes with globalization.

There is not an optimal policy to deal with the risks of volatile international capital flows; policies that may work in the short run having adverse effects in the long run. Still, there is massive evidence that currency and banking crises tend to occur in economies with deteriorated fundamentals suggesting that conservative macro policies should be at the heart of dealing with volatile capital flows.

Notes

1. A billion is 1,000 million.
2. This paper is restricted to the analysis of portfolio and bank-related flows. Still, it is important to note that in contrast to the booms and sudden stops in portfolio and bank flows,

FDI to emerging markets continuously increased even in the midst of currency turmoil (in part driven by purchases of firms in distress following the crises). This led many to single out FDI as stabilizing flows (see, for example, Reisen and Soto 2001; Sarno and Taylor 1999) and to support policies encouraging FDI. This reasoning has been challenged by Claessens, Dooley, and Warner (1995), who emphasize that capital-flow labels are meaningless in the presence of derivatives or efforts to circumvent capital controls.

3. Liquidity may have an important effect on investors' portfolio allocations since investors may want to avoid illiquid markets to minimize the price collapses always present when there is no ready market.
4. To identify liquid markets, Kaminsky, Lyons, and Schmukler (2002) first rank countries by region according to their volume traded and according to their share in the mutual funds portfolio at the onset of the crisis. The dummy variable related to volume traded takes a value of one if the country ranks among the top 30 percent most liquid countries in the region in that category, and zero otherwise. Similarly, countries are classified as liquid (that is, the dummy variable takes a value of one) if they rank among the 30 percent of the countries with the largest share in mutual fund portfolio for the region. A third dummy is created to capture whether emerging market firms are trading in mature financial markets. The variable takes the value of one if they do, and zero otherwise. Finally, the variable capturing restrictions to entry and exit of foreigners in the stock market of emerging economies takes the value of one if there are no restrictions, and zero otherwise. All this information is collapsed into a liquidity variable that is the average of the four univariate liquidity dummy variables. Thus, the general index of liquidity, the average of the four components, can take five values: 0, 1/4, 2/4, 3/4, and 1, with a value of 1 indicating a highly liquid market. I classify a country as having liquid financial markets when this dummy takes a value of 0.5 or higher.
5. See Kaminsky, Lyons, and Schmukler (2002) for a country-by-country detail on fragility, liquidity, risk, and mutual fund withdrawals.
6. See Goldstein, Kaminsky, and Reinhart (2000).
7. For an excellent discussion on the effects of asymmetric information in assets markets, see Eichengreen and Mussa (1998).
8. See, for example, Sachs, Tornell, and Velasco (1995).
9. See, for example, Kaminsky and Reinhart (2000) and Demirgüç-Kunt and Detragiache (1999).
10. In order to date the episodes of financial liberalization, we construct a chronology of financial liberalization in the domestic financial sector, the capital account, and the domestic stock market. The chronology allows for episodes of partial and full liberalization.
11. The 14 emerging economies are Argentina, Brazil, Chile, Colombia, Hong Kong (China), Indonesia, Korea, Malaysia, Mexico, Peru, the Philippines, Taiwan (China), Thailand, and República Bolivariana de Venezuela.
12. The evidence in Arteta, Eichengreen, and Wyplosz (2001) also suggests that the positive growth effects of liberalization are stronger in countries with strong institutions, as measured by standard indicators of the rule of law.
13. See Montiel and Reinhart (1999) for a study of 15 sterilization episodes in Africa, Asia, Latin America, and transition economies.
14. Claessens, Demirgüç-Kunt, and Huizinga (1998) present evidence that liberalization of the capital account and foreign bank entry lead to improvements in banking system efficiency.
15. See, for example, Stultz (1999).

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Resolution of Sovereign Debt Crises: The New Old Framework

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This paper sets out the principles that should underlie sovereign debt restructuring. It argues for a rules-based approach to achieve private sector involvement in restructuring. The rules must operate, however, in the context of an appropriate institutional framework with appropriate incentives. The markets cannot and will not create these institutions without some official intervention. The paper discusses why intervention in the form of a sovereign debt restructuring mechanism (SDRM) has been shelved. It goes on to consider a new institutional framework, with a permanent bondholders' committee and collective action clauses (CACs) in bond contracts, and stresses the need for uniformity in CACs. After interpreting the views of market participants on CACs, the paper concludes with an argument for official intervention to make CACs universal.

International finance carries inherent risks of instability and financial crisis, just as many individual firms carry the risk of experiencing financial distress. Eliminating risk would eliminate the high returns that often come from taking risks. Investors, whether they are firms or countries, therefore accept the risks that institutions develop to mitigate the costs when some of those risks do go bad. But those institutions are still weak at the international level.

Historical Consequences of Debt Crises

The widespread debt crisis of the 1980s became “the lost decade” for Latin America, and the banks ultimately had to accept substantial write-offs. The Asian crisis of 1997–8 was devastating at the time; it still is not over for Indonesia. The Russian default of August 1998 was settled relatively quickly, but even quicker were the

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Annual World Bank Conference on Development Economics—Europe 2004

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shock waves it sent out to the financial markets—playing some role in the failure of the Long-Term Capital Management hedge fund, a sharp rise of all emerging market bond spreads, and the subsequent Brazilian exchange-rate crisis. Dealing with country debt crises is always very messy, often protracted, and very costly to both debtor and creditors.

Orderly resolution of sovereign debt crises has in fact become more difficult in the past decade. The shift from the syndicated bank loans of the 1970s to a mix of short-term bank finance and bonds has created a much wider group of creditors and instruments. This exacerbates the “rush to the exits” by creditors in a crisis and the collective action problems involved in debt restructuring. What seems rational for an individual creditor trying to get his money out becomes counterproductive when all try to do so simultaneously, or when creditors cannot agree to accept some loss if some think they can do better acting alone.

The debtor knows that restructuring will be difficult in these circumstances and therefore may do everything possible to delay the inevitable, often as a result making the crisis worse when it does come. Then, once a restructuring is finally agreed upon by most creditors, holdout (“rogue”) creditors can seek to extract full payment—so all creditors are concerned *ex ante* about such free-rider behavior, and that itself impedes agreement. During a protracted restructuring, the debtor faces severe financing problems. It may be impossible to get “new money,” which often includes trade credit. The abrupt compression of imports and shift into exports can be a very painful adjustment, often accompanied by deep falls in output. The absence of a framework for orderly workouts increases the pressure on the International Monetary Fund (IMF) and Group of Seven (G-7) to step in with bailout packages, because a disorderly workout appears too unpalatable.

There are alternatives. There were discussions of an institutional framework for sovereign debt workouts in the 1980s; these ranged from proposals for an international bankruptcy court to using debt buybacks in a market-based mechanism. Eichengreen and Portes (1988, 1989) drew some lessons from historical experience with the Council of Foreign Bondholders (CFB) and the Foreign Bondholders Protective Committee (FBPC). The 1980s debt crisis was ultimately resolved through the Brady Plan, backed by pressure from the IMF through offers of lending into arrears (LIA).

After the Mexican crisis of 1994–5, Jeffrey Sachs (1995) proposed an international bankruptcy regime modeled on Chapter 11 of the U.S. Bankruptcy Code. Eichengreen and Portes (1995) argued instead for a combination of contractual and institutional changes that would not require an international bankruptcy court. In particular, they stressed the benefits of collective action clauses (CACs). The Group of Ten (G-10) deputies issued a report in May 1996 that advocated the latter route (G-10 1996). Rogoff and Zettelmeyer (2002) provide a detailed study of the literature on institutional frameworks for sovereign borrowing and workouts. Despite this extensive discussion, nothing was done because the G-10 left any action to the initiative of market participants. But the lenders had already expressed their opposition to any measures that would, as they put it, “make default easier” (IIF 1996).

It should instead be as “painful and messy” as possible, they said, in order to deter any violation of the sanctity of contracts.

The discussions on the international financial architecture that followed the Asian crisis of 1997–8 revived the debate, which was stimulated further by the Russian default of August 1998, with its impact on Brazil. But both the conclusions and the results were the same as before: no change. The crises in Turkey and Argentina were handled in much the same way as the Asian crises—a pre-crisis period of exchange-rate rigidity, endorsed by the IMF, followed by big bailout packages when trouble came. Only the debacle and default of Argentina broke the pattern, and the consequences were disastrous for that country, if not for the international financial system.

Then a major initiative emerged from the IMF. In November 2001, First Deputy Managing Director Anne Krueger advocated a sovereign debt restructuring mechanism (SDRM) to facilitate a declaration of insolvency for an over-indebted country along the lines of Chapter 11 of the U.S. Bankruptcy Code. Setting out a considered proposal four months after her first declaration, she responded to criticism by reducing significantly the implementing role of the IMF; but the SDRM would still require an international treaty or amendment of the IMF Articles of Agreement (Krueger 2002). U.S. Undersecretary of the Treasury for International Affairs John Taylor, responded immediately with an extended version of the proposals for contractual changes that had appeared in 1995–6 (Taylor 2002), explicitly withholding endorsement of any international bankruptcy procedures. The G-7 then adopted the U.S. position, while saying that the IMF should continue work to refine its plan. At the autumn 2002 IMF annual meetings, the “two-track” approach was confirmed: further work on the SDRM, to be presented at the April 2003 IMF meetings, side by side with efforts to make actual progress on CACs. In April 2003, however, the SDRM proposal was shelved *sine die* (IMF 2003). Nevertheless, the Krueger initiative unblocked discussion and has led to some innovation, as we discuss below. Meanwhile there has been some progress with CACs.

It might be argued that a truly new international financial architecture requires full recognition that international financial stability is a public good that will be supplied only with true collective action. The necessary institutions would be not just an SDRM to deal with *ex post* resolution of debt (solvency) crises, but also an international lender of last resort (ILLR) to ensure that liquidity crises are not contagious and do not become solvency crises. Stanley Fischer, the previous first deputy managing director of the IMF, had proposed this role for the Fund (Fischer 1999), but his proposal too has not led to any action.

We shall not consider further here the desirability and feasibility of making the Fund into an ILLR (although we have shown elsewhere why and how it should become a lender of *first* resort: Cohen and Portes 2004a, 2004b). We argue below that negotiation between debtors and creditors in *an appropriate contractual and institutional framework* would go a long way at least toward filling the gap that motivated the SDRM proposals.

General Principles

Comparisons between sovereign and corporate debts usually highlight a number of critical differences. A firm that goes bankrupt keeps an intrinsic value, which can be sold by creditors. This is not the case for a country. Aggregate GDP cannot be shipped home by the creditors. Some kind of willingness to pay on the part of the country is always needed. Moreover, because creditors have no collateral, the value of their claim is proportionate to the harm that they can inflict on defaulting countries. Defaults need to be “bad and ugly” if one wants to deter debtors from reneging on their debt. This is bad *ex post* for the country, but may be good *ex ante* insofar as it may raise the supply of credit. This is one reason why many big debtors such as Brazil are reluctant to participate in an SDRM: they fear that the mechanism would frighten their creditors and precipitate the crisis.

Neither of these arguments is fully convincing. Although it is true that payment always depends on the “willingness to pay” of indebted countries, this willingness, being conditioned by the threat of sanctions, is proportional to GDP or exports, although clearly by a factor less than one. This brings us to the second argument. There are two ways of interpreting “bad and ugly” renegotiations. Payment in full will be preferred over default whenever the debt is lower than a given threshold. Past this threshold, however, the optimum strategy is not to let the country default but instead to get it to pay an amount below the face value of the debt. This is obviously superior to outright default both *ex post* (the country is perhaps indifferent but the creditors get something) and *ex ante* (since this results in higher lending initially). This is why, as in any corporate bankruptcy court, a mechanism that enhances collective rationality of decision making in case of default should be welcome.

In practice, of course, an alternative a new procedure must balance *ex ante* and *ex post* efficiency, just as a well-designed bankruptcy procedure seeks to do. That is, it must reconcile the “sanctity of contracts”—the “bonding role” of debt—with the restoration of the debtor country’s capital market access and economic growth (Eichengreen and Portes 1995). The latter is the analogue of giving a corporate or personal debtor a fresh start, but it also preserves value in the sense that creditors too are better off than they would be with a disorderly process. The justification is well understood in bankruptcy theory, and most codes give considerable emphasis to trying to maintain the financially distressed firm as a going concern (Chapter 11 of the U.S. code goes especially far in this direction). Bankruptcy is clearly not there just to deal with the problem of organizing collective action by the creditors.

It is also necessary to find the right level of difficulty of default—“as difficult and messy as possible” is not the answer. If the debtor perceives default as infeasible or unacceptably costly, even when an objective assessment would say it is unavoidable, then we see “gambles for resurrection”: policies with some small chance of getting out of the hole but a high probability of failure, which exacerbates the difficulties. The Argentine debt exchange in summer 2001 is an excellent example. On the other hand, if default is too easy, then we do get moral hazard.

Essential differences between sovereign and corporate debts remain. For firms, bankruptcy is a mechanism that solves the problem one firm at a time. Even without raising here the problem of contagion crises, a sovereign debt crisis usually involves many (if not all) domestic debtors that have foreign creditors, whether these debtors are themselves solvent or not. If, say, the government suspends its payment, it is likely to generate outright default in the country. In other words, the (fear of) default generates a negative externality—which is actually the critical reason why collective action is needed across all classes of creditors and across all classes of debtors (Cohen 1991). We return below to discuss how this aggregation problem should be dealt with in times of crisis.

The collective action problem is the reason why the market cannot itself endogenously generate an appropriate institutional framework for workouts. This is shown by the historical examples of strong government roles in the creation and functioning of the bondholders' committees: the CFB in the United Kingdom and the FBPC in the United States (Eichengreen and Portes 1988, 1989). Experience since the Mexican crisis demonstrates conclusively that the private sector cannot design and implement such a framework by itself. On the other hand, the central existing institution—the IMF—cannot be allowed to hijack the process nor even to expand its own role. The Fund already has excessive scope and faces evident conflicts of interest (Portes 1999). This is generally accepted, as was manifest in the widespread negative reaction to the dominant IMF role envisaged in the November 2001 Krueger proposals for an SDRM.

There is another difference, which stems from the lack of transferable collateral, between a country and a firm. If a country finds it difficult to borrow because of a confidence crisis, then it may be endogenously obliged to default, in effect fulfilling the initial fear. Self-fulfilling debt crises are a phenomenon the theoretical rationale of which has been explored in the literature (Calvo 1988; Cole and Kehoe 1996, 2000). The intuitive rationale is quite simple: the perception of high risk raises the spread, which in turn raises the debt service burden, which in turn provokes the debt crisis. This may happen as a rational equilibrium if the fundamentals out of which a country can service its debt depend partly on its creditworthiness.

If default reduces the amount that a country can service (or if it even reduces this ability to nothing, in the case of outright default), then lenders that expect that nothing will be paid do indeed get nothing. This is less likely in the case of corporate debt if default results in, say, changing the management of the firm. Any mechanism that is geared toward maintaining ex post efficiency of the debt workouts is then bound to reduce the risk of a confidence crisis. In particular, a mechanism that guarantees an efficient debt write-off ex post can eliminate the risk of a confidence crisis (Cohen and Portes 2004b). This is one of the key advantages of an orderly workout mechanism: by guaranteeing that ex post resolution of the crisis is efficient, it deters the emergence of ex ante confidence crises.

Everyone recognizes that *disorderly* debt workouts—one or another version of default—are usually very costly to debtors and creditors alike. What could work better, avoiding both bailout and mess? Unfortunately, not the stated policies of the

official sector: “case-by-case with a framework.” The attempt to find an approach that lies between clear rules and total discretion has led to a policy that is clearly time-inconsistent and therefore not credible. Both politicians and the markets realize that in many cases—for “important” countries—there will be unbearably strong pressure on the official sector to swallow its principles and do whatever necessary to avoid a default.

That was evident for Turkey in January 2001, for Argentina in August 2001, and for Brazil in 2002 (an example of a potential self-fulfilling crisis—see Williamson 2002). That Argentina ultimately became unsustainable and insupportable does not contradict this conclusion, since it was evident long before (indeed, before August 2001) that it *would* become unsustainable, and it was simply a question of when the United States and the IMF would officially recognize this and give up. Moreover, the case of Turkey is a particularly good example of how private sector involvement (PSI) simply has not worked—the banks did not cooperate. There has been little success for efforts to limit moral hazard and share the burden with bail-ins (Roubini and Setzer 2004).

The first and simplest principle is that big bailout packages cannot and should not continue. IMF resources are stretched, and G-7 governments have little appetite for further action at the level of Turkey, Brazil, or Argentina. There is also some feeling, though not a clear consensus, that the bailouts from Mexico to Korea, Russia, and those of the past couple of years have left a bad incentive structure for both investors and borrowers—moral hazard, in some form.

It follows that a rules-based approach is necessary to achieve any significant PSI. Discretion simply encourages both exit and the expectation of bailouts when exit seems undesirable. In practice, too, the discretionary approach favored by the previous U.S. administration too often turned into a procedure in which the IMF implemented whatever the United States decided, ad hoc. The rules must include clear, ex ante presumptive limits on IMF lending in order to constrain political intervention and reduce moral hazard. It is impossible to implement such rules, however, unless there is a feasible alternative to a default that is deemed to be unacceptably messy. Without such an alternative, a rules-based approach with presumptive lending limits turns out to be time-inconsistent and is abandoned.

Any procedure for resolving sovereign debt problems must sustain the “bonding role of debt”—ex ante efficiency. But debt restructuring that is unacceptably costly to the debtor encourages gambling for resurrection. A good procedure, on the other hand, should facilitate the return to growth and capital market access—ex post efficiency. Still, a very low cost to the debtor generates moral hazard. Much of the controversy lies in balancing these two considerations.

Developments since 1994, with a range of financial crises and extensive debates on the international financial architecture, have conclusively demonstrated that the markets will not by themselves generate the institutional framework for effective resolution of sovereign debt difficulties. The great merit of the Krueger proposals is to have reopened the debate and possibly to have led it toward official action that would change existing market institutions.

The Krueger (IMF) Proposals

The Krueger proposals of end-November 1991 for a sovereign debt restructuring mechanism (SDRM) came very close to an international bankruptcy court operating under the aegis of the Fund. Krueger and her colleagues then set in motion various studies within the Fund, while receiving reactions from member countries and outside observers. At the beginning of April 2002, she published a revised version of the “statutory approach” that distanced the new institution from the Fund and gave it less authority to override contracts (Krueger 2002). It would nevertheless require changes to the Articles of the IMF, as indeed do all subsequent versions of the IMF’s proposals.

The key features of the Krueger proposals are the following:

- Majority (supermajority) voting could restructure all the country’s debt, and this would be binding on minority creditors.
- Disruptive litigation would be deterred by
 - either an automatic stay (standstill) on payments during restructuring,
 - or the deduction of amounts recovered by any creditor through litigation from its residual claim under agreed restructuring.
- Priority would be given to (“debtor-in-possession”) financing from new lenders.

In the revised IMF scheme, a country that finds it cannot continue to service debt would normally apply to the IMF for a finding of unsustainability. The IMF may then authorize a payment standstill (although the Fund eventually abandoned this element of the proposals), which would entail a stay of creditor litigation, applying to private sector debts too. The debtor would probably have to introduce exchange controls. While a debt restructuring, probably involving some debt relief, is underway, new lending would take seniority over old claims. The debtor and creditors would themselves negotiate the restructuring, but there would be a panel of judges, independent of the IMF, which would have at least the following functions:

- verification of creditor claims
- resolution of disputes
- oversight of creditor voting

Arriving at an agreed restructuring would be much easier if the debt instruments were to include CACs. They would therefore form part of the package, although it is recognized that CACs could apply only to new debt contracts.

Difficulties with the IMF Proposals

Several key queries and objections have been raised in regard to these proposals. There are well-known limits to the analogy between corporate and sovereign bankruptcy; there are specifically limits to an international version of Chapter 11. First, the inability to define the sovereign’s “net worth” or “liquidation value” entails that

the creditors have no well-defined outside option to a settlement, and it is that outside option (the value achieved from liquidation, as set out in Chapter 7 of the U.S. code) that imposes a framework on Chapter 11 negotiations. Second, the Chapter 7 liquidation value gives a standard of reference for “cramdown” a court-imposed resolution: the judge cannot prescribe a solution that would give any class of creditors less than it would obtain under liquidation. Third, it is hard to define “debt sustainability” in Chapter 11, just as it would be for a country. Evidence for this is that over 50 percent of firms exiting Chapter 11 ultimately end up back in reorganization or liquidation. Finally, the new borrowing with seniority allowed under Chapter 11 (debtor-in-possession [DIP] financing) can create its own problems: if the firm’s debt is in fact already unsustainable (if it is insolvent), then new financing with priority just crowds out existing creditors—they really do end up worse off than they would be under liquidation.

Market participants, of course, are generally hostile to any measures that would appear to make default “easier.” Conversely, however, one might ask whether easier debtor access to standstills would cause creditors to exit even earlier and more quickly than they do now. Then, once a standstill had been announced and endorsed, the debtor might have problems obtaining even short-term trade finance, whatever seniority that might attract. It is not clear what sort of IMF financing might be available during a standstill. Some time ago the Fund adopted an explicit policy for lending into arrears in appropriate circumstances, but those circumstances and the limits to such lending have not been specified precisely, despite efforts to do so (IMF 2002).

There is an apparent asymmetry in the proposals: the IMF would be competent to decide that the existing debt burden is unsustainable, but it would not be given authority to determine what reduced level would be sustainable, since this would prejudice the outcome of negotiations. Market participants would indeed see this as the Fund imposing the (aggregate) terms of a workout. Yet some parameters are needed for negotiations, and many would argue that the Fund is best qualified to set those—just as it does now in estimating a country’s “financing gap.”

The most fundamental, decisive objection to the IMF proposals is that they would require major changes in the IMF Articles of Agreement, which are in effect a treaty that binds member countries. This is politically infeasible for the foreseeable future. Some major emerging market countries have been hostile to any such proposals (including CACs) because they fear a lender reaction that would impair their current market access, and they attach a low *ex ante* probability to their having to use an SDRM. Decisive, however, is the opposition of the United States. Of course, the European countries, which were broadly more inclined to view the SDRM proposals favorably, do have more votes in the Fund than the United States, but the United States has enough to veto. And even a U.S. administration that might wish to amend the Articles to introduce an SDRM would have to seek ratification from the U.S. Congress (the Senate would have the final say). To put to Congress any legislative initiative whatsoever regarding the IMF, however, would entail the risk not merely of defeat, but more seriously, of opening a Pandora’s box of disparate but powerful waves of hostility to the Fund itself. The potential for a Congressional attack on the

IMF—to abolish it, require U.S. withdrawal, end U.S. funding, attach “wrecking amendments” (anti-abortion and so on), or at least to prune severely its roles and authority—was evident in the debates that resulted in the Meltzer Commission and in U.S. Congressional reactions to the Commission’s report. Deft and diligent work by the U.S. Treasury was required to ensure that Congress took no actions to implement the report, which might have led into very dangerous waters.

Obstacles to an International Bankruptcy Court

It is also useful to review the difficulties facing any version of an international bankruptcy court with teeth. Without a treaty (an amendment of the IMF Articles), such a body could not enforce the seizure of collateral, if there was any. More seriously, it could not grant seniority to new money (the equivalent of DIP financing under Chapter 11). It could not enforce a cramdown, although the possibility of both cramdown and DIP financing could be provided in new bond covenants and loan agreements. The court could not “replace management”—indeed, governments would require a guarantee of sovereignty (analogous to Chapter 9 of the U.S. code, which sets out insolvency procedures for state and local governments). There would be a politically divisive asymmetry, since the industrial creditor countries would doubtless resist putting themselves as debtors under the potential jurisdiction of such a court.

More broadly, we observe that national bankruptcy codes differ widely, specifically on the role of the courts. The highly activist involvement of the bankruptcy judge in U.S. Chapter 11 proceedings, for example, contrasts with the United Kingdom proceedings, where “the receiver is king.” It is therefore unrealistic to expect an agreement on a uniform international bankruptcy code, with legislative backup. These tensions and different perspectives were indeed evident in the final discussions of the SDRM by the IMF’s executive board in 2003.

A New Institutional Framework

A better alternative than an international bankruptcy court—and politically easier to implement—is to construct a new institutional framework that would operate in the case of a solvency crisis, when debt restructuring would be necessary. In addition to the existing Paris Club and London Club mechanisms, which deal with debt to governments and to banks respectively, there would be a permanent (but “light”) bondholders committee—the “New York Club,” say. It would look not unlike the previous CFB and FBPC. It would oversee bondholders’ negotiations with the debtor. And because it would be dealing with all bondholders in simultaneous negotiations under the same umbrella, this institution would go some way toward coping with the aggregation problem.

There might also be a new mediation agency (independent of the IMF), as proposed by Eichengreen and Portes (1995). Again, this would be an administratively

“light” structure that would coordinate the Paris Club, London Club, and New York Club, primarily ensuring the timely exchange of information and the comparison of assumptions. It would verify claims and oversee bondholder voting. It might take on other roles, such as endorsing (or not) a proposed standstill. Even more broadly, it could be charged with overseeing the implementation of a code of conduct along the lines recently proposed by the Banque de France. This is similar to the International Center for the Settlement of Investment Disputes (ICSID). The proposal of the Institute for International Finance to bring all creditors into a single negotiating committee seems unnecessarily to override existing structures, the Paris and London clubs, that work efficiently. The Paris Club, London Club, New York Club, and SDDRF would, together, over time, develop a “code of good practice” for workouts.

There would also be new contractual arrangements, CACs, that would ultimately be extended to all sovereign bonds. An additional contractual innovation that would facilitate restructurings would be to utilize the trust deed form for bonds (common under U.K. law but not in New York—see Buchheit and Gulati 2000). Here the trustee acts for all holders of a given security and centralizes enforcement of any decisions (in particular, the trustee shares among the bondholders the proceeds of any settlement).

CACs

Debt contracts are incomplete and, as we have seen, the consequent problems are more severe for international than for corporate borrowing. The institutional and legal structure for sovereign borrowing must respond to this fundamental problem. The broad phrase *collective action clauses* has been extended to cover a wide range of proposals. As first set out by Eichengreen and Portes (1995) and elaborated recently by Taylor and the G-10 Working Party (G-10 2002), these would bring to bond contracts (and indeed to bank lending instruments) a range of clauses that would, we believe, promote orderly workouts of international debt. They could help to avoid the chaotic sequel to default that we have seen, for example, in the Argentine case. These CACs would include:

- initiation and engagement clauses detailing how negotiations would proceed;
- a clause permitting changes by a qualified majority in the terms of the debt, including amounts and dates payable;
- a sharing clause that would require pro-rata distribution to all bondholders of any payment made to any one of them; and
- a nonacceleration clause to avoid having one missed payment trigger an immediate full repayment obligation.

It has been objected that including such clauses in international debt contracts would weaken the bonding role of debt and thereby provoke lenders to withdraw, reducing or disrupting market access for countries that now have such access or aspire to it. These objections ignore or dismiss well-supported empirical results from

comparisons of “British-style” bonds, which typically do have such CACs, to otherwise equivalent “American-style” bonds, which do not. This work shows at most some tendency for terms available to “bad” borrowers to be inferior under the “British” bonds, whereas the terms to “good” borrowers (as measured by credit ratings) are in fact better than under the American bonds (Becker, Richards, and Thaicharoen 2003; Eichengreen and Mody 2000; Eichengreen, Mody, and Kletzer 2003; Guggiati and Richards 2003).

The most convincing reply to this criticism, however, is to perform the thought experiment of asking what domestic corporate lending would look like without bankruptcy codes. If arrangements permitting the orderly restructuring of debt were abolished, we would surely not observe better terms for borrowers.

The discussion of CACs has progressed to the point where we must be more specific about their content. First, we stress the importance of making CACs as uniform as possible. The advantage of boiler plate language in a sales contract is that the buyer need not read the small print, but instead can focus on the key characteristics of the good or service he is buying. These characteristics are what should be reflected in the market price. CACs should become routine, so that they do not even significantly engage the attention of lenders.

Consider going into a restaurant. The contract does not specify the characteristics of the food, service, or ambience (except so far as it can be assumed, for example, that the restaurant satisfies public health regulations, employment regulations, and health standards). The contract is that when they bring the bill, you pay—no three months credit with zero interest rate (although they may say beforehand that they do not accept credit cards). The price therefore reflects the quality of food, service, and décor. That is the information we want prices to convey: information about the fundamentals. The market for sovereign bonds would lose enormously in transparency if pricing had to reflect differences in contractual clauses that buyers have neither the time nor the expertise nor the inclination to price. If Mexico is a better credit than Brazil, because its fundamentals are superior, that should show in the spread, not in permitting a lower supermajority to amend the payment terms. The alternative would have the CACs feature in competition among underwriters, leading to what the investment community could reasonably regard as a deterioration of standards.

So what should be uniform? There are currently alternative “model CACs” proposed by the G-10, the “Gang of 7,” and the U.S. Treasury. They all identify the key clauses as the following:

- engagement clause
- representative clause (preferably designating a trustee)
- majority action clause (with separate thresholds for “reserve” and “nonreserve” matters)
- disenfranchisement clause (government-held bonds should not vote)
- acceleration and rescission of acceleration clause
- litigation clause (to be initiated by representative)
- sharing of proceeds clause
- information clause (information to be made available on request)

These typically are CACs. Other clauses that are already standard are the *pari passu*, negative pledge, and cross default clauses. Detailed discussion can be found in the IMF executive board (2003a) discussion of CACs and in Roubini and Setzer (2004).

All of these clauses should be uniform with only marginal variations, and should not (need not) be too far from the language in current English-law bonds, because these are already out in the market in substantial volumes (this is consistent with the G-10 and U.S. Treasury proposals, but not those of the Gang of 7; see the section on Market Participants' Views below). Mexico's February 2003 issue lacks an engagement clause, but there is no reason to believe this was a matter of principle, and it would be desirable for Mexico to include such a clause in its next issue. The one area where market participants might reasonably wish to see differentiation would be in the information clause, which could be more stringent for lower-rated issuers.

Problems remain. For example, how should old bonds that do not include such clauses be dealt with? Bonds are often exchanged, and this could be facilitated with "sweeteners" if necessary. The New York Club could deal with cross-issue coordination—there is ample historical precedent in the activities of the CFB and the FBPC. It seems difficult and perhaps undesirable to have in each instrument a meta-CAC that would in effect impose qualified majority voting among all bondholders, the result of which would cover all outstanding instruments of a given debtor. The 2003 Uruguay exchange offer did include a provision of this kind, according to which a set of bonds could be restructured with only two-thirds approval by holders of any single bond, provided that 85 percent (by value) of all bondholders agree to the restructuring. The expedient of exit consents was used effectively to apply pressure to dissident creditors in the case of Ecuador (Buchheit and Gulati 2002). Market participants strongly oppose such aggressive measures.

The aggregation problem is not trivial, but the combination of new institutions and CACs can deal with it satisfactorily. Historically, the institutional framework of the CFB and the FBPC did in practice achieve aggregation. The New York Club proposed here could, for example, resting on an ample body of precedent, bring together and subsume the various groups seeking to negotiate on behalf of Argentine bondholders, whose multiplicity and fractiousness are clearly impeding progress today. And with CACs in all new bonds, new issues and debt exchanges would result in all bonds having CACs within a decade (note that if the process had started in 1996, we would be almost there already).

Still, this is the key difference between CACs and the SDRM: the latter would deal simultaneously with all securitized sovereign debt issued in foreign jurisdictions. It would therefore have to override existing contracts and would therefore require domestic legislation valid in international law—that is, with the force of a treaty—the simplest form of which would be amendment of the Fund's Articles. But that means explicit approval by the U.S. Congress, as well as other national legislative bodies. This will not happen in the foreseeable future. Indeed, the April 2003 meeting of the executive directors of the IMF concluded that "there does not appear to be the requisite support among the Fund membership to establish the SDRM

through an amendment of the Fund's articles" (IMF 2003b). The subsequent meeting of the International Monetary and Finance Committee endorsed this conclusion, while saying it "looks forward to the inclusion of CACs in international bond issues becoming standard market practice and calls on the IMF to promote the voluntary inclusion of CACs in the context of its [Article IV] surveillance."

Standstills

Absent a new, binding international accord—an amendment to its articles—the IMF has no legal authority to declare a standstill that would stay litigation by creditors. That does not, however, preclude it (or a new agency) from issuing an opinion on the justification for a standstill in any given case. That could help to give it legitimacy and at least discourage litigation, especially if the Fund were to adopt guidelines specifying the circumstances in which it would be likely to find a standstill justifiable. To enforce a standstill would require comprehensive exchange controls, and the Fund should be ready to advise a country how best to implement such controls. A court challenge to a block on payments would be likely to take sufficiently long to resolve that meanwhile agreement could be reached under the new orderly workout arrangements.

Here too, we need guidelines on the amounts and duration of IMF lending into arrears. As noted above, such "debtor-in-possession" financing runs risks—in particular, risks that the debtor "wastes" the new money, its position does not improve, and the pre-existing creditors find their position has deteriorated because there are new debts with a priority higher than theirs.

An alternative to a conventional standstill is the UDROP (universal debt rollover option with penalty) (Buiter and Sibert 1999). Under this scheme, all foreign currency debt contracts (private and public) would permit the borrower to postpone debt service for a fixed period by paying a pre-specified penalty. Modifications have been suggested (Kenen 2001): the contract could require that the debtor's central bank would have to declare a "crunch" before the debtor could activate the clause. And the contract could provide that the government or the central bank (rather than the individual debtors in the private and public sectors) could take the initiative to activate the UDROP clauses simultaneously for all contracts, under specified conditions.

Market Participants' Views

Representatives of major international investors, speaking in particular under the auspices of the Institute for International Finance (IIF), have from early 1996 opposed most of these measures (IIF 1996; Portes 2000). They maintain that "crisis resolution [should be] based on restoring private sector confidence [and market access] . . . the 1990s approach. . . ." (IIF 1999). The argument is again for making default as

messy and costly as possible, because, they believe, debtors repay only when the pain of default is unacceptable. They have opposed CACs (until recently), any official endorsement of payments standstills, the pernicious policy of IMF lending into arrears, and the aggressive use of exit consents.

It is not surprising that they have advocated “relatively large but temporary official support” (IIF 1999)—“market confidence is often best catalyzed by substantial commitments of official financing” they say (IIF 2001).

The views of market participants on collective action clauses have moved significantly over time. Initially, they argued that “any international attempt to make such clauses mandatory . . . would convey the impression that the public sector was prepared to facilitate default” (IIF 1999). More recently, however, they conceded that “CACs in bond contracts can be useful in facilitating restructuring . . . and their adoption on a voluntary basis could be encouraged” (IIF 2001). The turnabout was completed when the director of the IIF wrote to the chairman of the IMF’s policy-making body that “. . . a public-private initiative . . . [should] advance practical steps . . . that would lead to the broad-based inclusion of collective action clauses” (C. Dallara, letter to G. Brown, April 9, 2002). One could be forgiven for conjecturing that this reappraisal simply saw CACs as a less undesirable alternative to the proposals that were coming from the Fund.

Indeed, perhaps the main achievement of the SDRM proposals is to have given market participants a strong incentive to cooperate with the “decentralized, contract-based” alternative. Under this pressure, in June 2002 a group of six associations of private sector financial institutions agreed on “market-based principles” that they proposed for crisis management and debt restructuring. And in February 2003, they proposed their version of model CACs. These proposals, however, are more than even-handed—they take away with one hand what they concede with the other. Their provisions for amending financial terms are more restrictive than those already existing in English-law bonds, while their proposals for amending nonfinancial terms are more restrictive than those in New York law bonds (Roubini and Setzer 2004).

Market participants often maintain that the emerging market countries themselves oppose CACs. This has been true to some extent, but it may result from the interaction between the New York investment houses and the borrowers in a market structure of oligopolistic competition. The underwriters have counseled borrowers against CACs. Some of them say privately that this is only because the conventional view of the borrowers, albeit unjustified by any empirical test, is that they would get worse terms if they were to include CACs. And, say the underwriters, they cannot push CACs against issuer resistance when competing for a mandate because the competition will tell the issuer that CACs are unnecessary and undesirable. But to the extent that the underwriting houses themselves believe this, they should note that bonds without CACs do not give any extra protection against bail-ins when things go wrong—they just mean extra hassle (as in the case of Ukraine).

Market participants have also said that the SDRM is attacking the insolvency problem, whereas in fact illiquidity crises are more common and more serious; that the SDRM is simply the Fund’s way of trying to protect its own position as a senior

creditor; and that both SDRM and CACs threaten the sanctity of contracts, will create unacceptable levels of moral hazard, and will thereby raise the cost of capital for emerging market borrowers (see above).

Are these their true motivations in opposing the SDRM and CACs? Issuers clearly are concerned about the possibility of higher spreads, whatever the empirical work may say, and they want to demonstrate that they have no fallback position. Both issuers and underwriters are trying to sell bonds and fear the chilling effect of “pre-nuptial agreements.” Most important, however, is that lenders expect bailouts as long as there is no alternative, established procedure for PSI. As long as the official sector provides bailout packages, there is no incentive for the markets to want CACs; but there must be bailouts in the absence of an alternative that would limit the costs of default. There is a chicken-or-egg problem—one might indeed call it “CACs 22.”

There are signs, however, that the opposition is eroding. Mexico, whose central bank governor had previously been a prominent sceptic on CACs, took the initiative to issue a new sovereign bond with CACs in February 2003. Mexico was followed by Brazil in April 2003, then by South Africa and Uruguay. The market priced these issues apparently without regard to the “new” clauses. We may finally have reached the end game.

How to Proceed

The official sector has supported CACs since 1996, with gradually increasing commitment. Market participants are accepting them, however grudgingly. The remaining resistance from market participants and borrowers should be ignored. The private sector (banks and investment houses) does not want a “mandated regime” and never will. That includes mandatory CACs. But, to be fully effective, such provisions must be quasi-universal. The G-7 Action Plan does not yet go far enough to bring any action. We still, therefore, have no organized, acceptable alternative to bailouts.

Pressure from the official sector and the examples just noted may be sufficient to bring general acceptance. If not, there is a relatively simple, feasible way of implementing our proposals (Portes 2000). The mandates of the American Securities and Exchange Commission (SEC) and the British Financial Services Authority (FSA) include duties to protect investors and to maintain orderly markets. Although these institutions resist any such interpretation, it could be taken as sufficient justification and authority, without new legislation, for them to intervene. It is clear from the case of Argentina that those markets were and are disorderly and that investors have not been adequately protected against the eventuality of default by having adequate post-default procedures in place. In countries where CACs might require new legislation (such as Germany and Japan), this should be initiated.

The U.S., U.K., and other major financial center regulatory authorities should therefore stipulate that bonds issued or traded in their markets must include CACs and other workout-friendly clauses. The IMF could organize and indeed help to fund a voluntary exchange program (with enhancements) for outstanding stocks of

securities without such clauses. And the Fund should make access to the SRF (indeed, to any Fund program) open only to countries that use CACs. Given the resistance, it would require substantial pressure from the U.S. and U.K. treasuries to proceed in this way. If the markets do not now generalize the recent examples, however, the official sector should not hesitate to act. In practice, U.S. and U.K. action would probably suffice.

Conclusion

Considerable progress has been made since November 2001. The Krueger speech and the U.S. response to it removed substantial blocks to action. The problem is primarily implementation. Here a decentralized, voluntary approach simply will not work across the board. Both historical examples and the record of the past few years demonstrate this conclusively.

The SDRM debate has been extremely useful, but seems now to have fulfilled its role of stimulating progress toward implementation of feasible proposals, in particular CACs. Meanwhile, the official acceptance of the view that the SDRM is itself not feasible has undermined its credibility as a threat. Other pressures for implementation must take its place. And even if the markets now move to universalize CACs, other institutional innovations—such as a New York Club—are required to support them. These too need more than simple encouragement from the official sector. If there is no determined action, we shall not be ready for the next wave of crises—which will surely come.

Note

This paper, a revised version of the presentation to the ABCDE Europe conference, draws on joint work with Daniel Cohen in a report prepared for the Conseil d'Analyse Economique, *Crise souveraine: Entre prévention et résolution*, CAE Rapport no. 43, September 2003, Documentation Française. I have benefited from comments by two anonymous referees.

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Innovative Sources for Development Finance: Global Public Economics

SIR ANTHONY B. ATKINSON

This paper is concerned with issues of global public finance and the potential for new sources of funding for world development and poverty eradication. A United Nations General Assembly resolution has called for a rigorous analysis of the advantages, disadvantages, and other implications of proposed new sources of development funding. Possible innovative sources include a tax on short-term capital and currency flows (the “Tobin tax”), global environmental taxes, a global lottery, creation of new “Special Drawing Rights,” increased private donations for development, increased remittances from emigrants, and the International Finance Facility recently proposed by the U.K. government.

The paper examines four major issues that arise if we are to devise realistic, feasible ways of achieving a substantial increase in the flow of resources. It seeks to bring to bear accumulated knowledge in the field of national public finance and, more generally, public economics. The first question that has to be asked concerns the role of new sources. Some of the proponents of global taxation see it as an alternative to official development assistance (ODA), but opponents see as an objection to new sources the idea that they could weaken the resolve of rich countries to increase ODA. Evaluations of the new ideas must therefore make clear whether they envisage a net addition to development resources or see new sources as an alternative to increased ODA.

The second question concerns institutional architecture. Multilateral actions to introduce new sources of development resources involve intergovernmental cooperation. How far does this require unanimity? The answer is likely to depend on the form of the new source, and this consideration may push some ideas to the top of the agenda. What are the institutional arrangements under which multilateral action takes place? Here one can learn from other arenas in which governments have

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Annual World Bank Conference on Development Economics—Europe 2004

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learned to cooperate. The paper suggests that the principle of subsidiarity, which has proved its value in the European Union, may allow a balance of national and global concerns.

The third question deals with the economics of transfers. Are these new sources examples of Arthur Okun's "leaky bucket," where the total available for development falls short of the total collected? Or can new taxes be devised that create a "double dividend," where, for example, a global carbon tax both collects new revenue and reduces carbon emissions?

The introduction of new sources is a matter not only of economics but also of politics. The final question concerns the political economy of new sources. Is it best to link new revenue with another objective such as reducing currency speculation? Or does such a linking increase the size of the hostile coalition?

Two powerful and divergent forces grip the world at present. On the one hand, the effectiveness of international organizations has been called into question. There is in some countries a sense of frustration with multilateral cooperation and an increasing resort to unilateral action. On the other hand, a global economy requires global institutions. International organizations are viewed by many as the key to the free movement of goods, services, and capital. We have seen the adoption of ambitious development targets in the form of the Millennium Development Goals (MDGs).

Innovative Sources to Meet a Global Challenge

The tension between these two forces pervades the discussion of resources for world development. On the one hand, there is talk of "donor fatigue," and proposals for any form of global taxation meet immediate opposition from the U.S. Congress. On the other hand, there is widespread recognition of the need for new flows to allow the MDGs to be achieved. There are interesting ideas for new sources of revenue—such as a global lottery or the establishment of the International Finance Facility. Individual U.S. billionaires are personally funding activities of the United Nations (UN).

The direction taken at this juncture will depend largely on political events and political decisions. This paper is written in the hope that sober economic analysis will also contribute. Its aim is to set out a number of the key questions that arise in considering sources of new revenue for development finance. It does so on the assumption that international organizations will play a continuing—indeed a growing—role, and that the agenda will be framed by the goals that have received international support, notably the MDGs adopted by the UN General Assembly. Indeed, as a result of the Five-Year Review of the World Summit for Social Development, the UN General Assembly adopted a resolution calling for "a rigorous analysis of the advantages, disadvantages and other implications of proposals for developing new and innovative sources of funding, both public and private, for dedication to social development and poverty eradication programmes." As the UN Secretary-General

has observed, there has been a great deal of innovation in private financial markets, but less in the sphere of public finances.

The paper is concerned with new sources of development funding in general. It is, however, useful to have some examples in mind, and seven such proposals are set out in box 1. As this makes clear, possible new sources include both private and public sources of funding. We are not just concerned here with global taxes and

BOX 1. Possible Innovative Sources of Development Funding

| Source | Description |
|---|--|
| Currency Transactions Tax ("Tobin tax") | Tax on short-term capital and currency flows at a uniform rate payable by all banks and foreign exchange dealers, collected on a national or a market basis, covering a range of transactions to be defined (spot, forward, future, swaps, and other derivatives). See Haq, Kaul, and Grunberg 1996; Mendez, 1997; Nissanke in Atkinson 2004; Patomäki and Denys 2002; Spahn 1996. |
| Global environmental taxes | Tax on commercial use of hydrocarbon fuels according to their carbon content; tax on international air passenger mileage and freight transport. See Cooper 1998; Pearce 1991; Poterba 1991; and Sandmo in Atkinson 2004. |
| Global lottery | Global lottery operated through national state-operated and state-licensed lotteries, with proceeds shared between national participants and an independent foundation established in conjunction with UN. See Addison and Chowdhury in Atkinson 2004 and Ahde, Pentikäinen, and Seppänen 2002. |
| Creation of new Special Drawing Rights (SDRs) | New round of creation of SDRs as approved in 1997 but not yet ratified, with donor countries making their share available for development purposes. See Aryeetey in Atkinson 2004 and Soros 2002. |
| Increased private donations for development | Measures to encourage private funding of development through UN agencies. Global funds. Corporate sponsorship. Internet. See Micklewright and Wright in Atkinson 2004. |
| International Finance Facility (IFF) | Long-term, but conditional, funding guaranteed to the poorest countries by the donor countries. Long-term pledges of a flow of annual payments to the IFF would leverage additional money from the international capital markets. See HM Treasury and Department for International Development 2003 and Mavrotas in Atkinson 2004. |
| Increased remittances from emigrants | Logistics (reducing cost of remittances), financial institutions (encouraging repatriation) and citizenship rather than residence basis for taxation. See Bhagwati and Hamada 1982; Bhagwati and Wilson 1989; Mirrlees 1982; Solimano 2001; and Solimano in Atkinson 2004. |

official flows of development assistance. If, for instance, there are ways of increasing the remittances sent home by workers abroad, and these can be channeled into development purposes (such as the construction of schools), then this increases the flow of resources available for development. The same applies to charitable contributions by the citizens of rich countries. It should also be noted at the outset that I am concerned largely with the *sources* of funding rather than the *use* of funds. The two sides cannot of course be completely separated. It is easier to raise finance for specific purposes. We need to address the issue of earmarking. But the use of funds and their effectiveness is not the focus here.

One purpose of the present paper is to bring to bear on *global* public finance the accumulated knowledge in the field of *national* public finance, and more generally public economics. Although public economics has had an international dimension, and there has been a close link between public economics and development planning (the opening sentences of the article on optimum taxation by Diamond and Mirrlees in 1971 refer to planning and investment criteria), there has been less impact on global development. As was observed a decade ago by Mendez, “a critical element lacking in the fields of finance and international relations is a theory and system of international public finance” (1992, p. 11). The paper examines the contribution of the classical theories of incidence and excess burden; it asks how far one can learn from experience at a national level with optimal tax design.¹ In line with recent developments in public finance, we need to consider the political economy of world resource flows, and the relation between fiscal and nonfiscal sources of funding.

This approach leads one to ask a number of questions. Those considered here are set out in the titles of the next four sections. The aim is not to provide definitive answers, but to clarify the questions being asked and to suggest possible answers that are not immediately apparent. To illustrate the issues, I refer at different points to the seven schemes listed in box 1. These schemes differ considerably. They include actions close to existing ODA (the International Finance Facility) and sovereign actions of governments (SDR allocation); they include measures to increase the benefits in terms of development funding from flows of private funds (remittances and charitable contributions); and they include totally new departures, such as global taxation and a global lottery. There is of course a risk that by considering together such disparate measures we may be confounding the issues. The different instruments raise different concerns. However, one of the key lessons of modern public economics is that it is often valuable to consider within a common framework different forms of government policy.

What Is the Role of New Sources?

It is widely recognized that we need to develop new and innovative sources of funding, both public and private, for dedication to social development and global poverty eradication. The present level of ODA is not sufficient to achieve the MDGs. The Zedillo Report concluded, “the inescapable bottom line is that much more funding is

needed for official development assistance” (UN 2001, p.10). “Meeting the International Development Goals alone would require almost double the current ODA total of more than \$50 billion per year” (UN 2001, p.16). The U.K. government (HM Treasury and Department for International Development 2003, para 1.11) estimate that to achieve primary schooling for all needs some \$10 billion more each year, that to reduce infant and maternal mortality requires an extra \$12 billion a year, and that halving world poverty requires an investment of up to \$20 billion a year. The most straightforward resolution is to increase ODA: the U.K. government refers to a doubling to \$100 billion a year as part of its proposed new International Finance Facility. In this respect, donor countries at the Monterrey Summit made useful progress. However, the announced increases, such as that by the European Union, still fall well short of the amounts just mentioned.

The gap between current ODA and the amounts required to meet the MDGs is one of the motivations for looking at innovative sources of development funding. Moreover, the research to date suggests that new sources could raise sums to fill the gap. The conclusions of Clunies-Ross (2003) may be summarized as follows (figures are all for annual amounts, rounded):

- Arms-trade taxes: modest revenue-earner \$5 billion
- Tax on international air transport: revenue less than \$20 billion
- Carbon tax: \$60 billion if levied on high-income countries
- Tobin tax at rate 0.02 percent: revenue \$50 billion

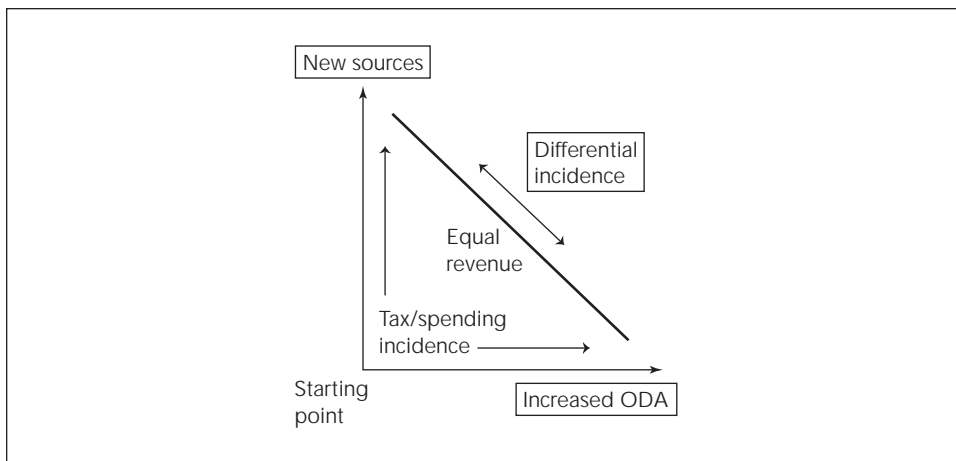
If these estimates are broadly correct, then there appear to be several ways in which a sum equal to or exceeding existing ODA could be raised.

Relation between New Sources and ODA Expansion

The first question we need to address is the relation between new sources of development finance and an expansion of ODA. Are these to be seen as alternatives? Many proponents of new sources view them as a way achieving an increased flow of development resources at a time when increased ODA seems unlikely to materialize. Global taxation is an alternative to trying to persuade rich countries to take seriously their unfulfilled pledge to meet the UN target of giving aid equal to 0.7 percent of GNP. Others see this as a reason for opposing the exploration of new sources: Tobin taxes or other new schemes would weaken the resolve of rich countries to meet the UN ODA target.

Or are the new sources a net addition to the total of development resources? This is clearly a different proposition. One of the key lessons from public finance is that the incidence of taxation depends on what else is being varied at the same time. As Musgrave set out in his classic *Theory of Public Finance* (1959), one possibility is “tax/expenditure incidence,” where revenue is increased and spending goes up by the same amount: as illustrated in figure 1, the introduction of new sources involves moving vertically. ODA remains unchanged and the benefit from the additional revenue is seen in the contribution to development goals. Alternatively, we could con-

FIGURE 1.
Net Addition to Development Resources or Alternative Source?



trast the two sources. As indicated in figure 1, we could move along a line holding development spending constant while varying the sources of funding. In Musgrave's terminology, this is "differential tax incidence": the differential implications of different means of securing a given flow of resources. For example, if a global lottery raises new revenue, then this reduces the need for increased ODA and hence avoids an increase in domestic taxation. This is a different situation.

The distinction between two different types of incidence is drawn from the taxation literature, but similar questions arise with other proposals for new sources. In the case of the International Finance Facility, we have to ask how far the guarantee of funding by donor countries increases the net value of ODA. How much net additional resources are generated by the certainty of underwritten flows rather than annual allocations by donor governments?

Conclusion

When considering innovative sources, we need to be clear whether they are seen as a complement to ODA or as an alternative. In the former situation, the case has to be made in terms of enhanced funding for development; in the latter situation, the case is being made that the innovative sources are a better way of funding a given development effort. Put bluntly, is the case to be made for a carbon tax that it will fund the MDGs or that it is a better way of funding those goals than increased ODA?

What Architecture?

In some instances, new sources could be introduced by a country acting unilaterally: for example, a country could provide matching funds for private funding of

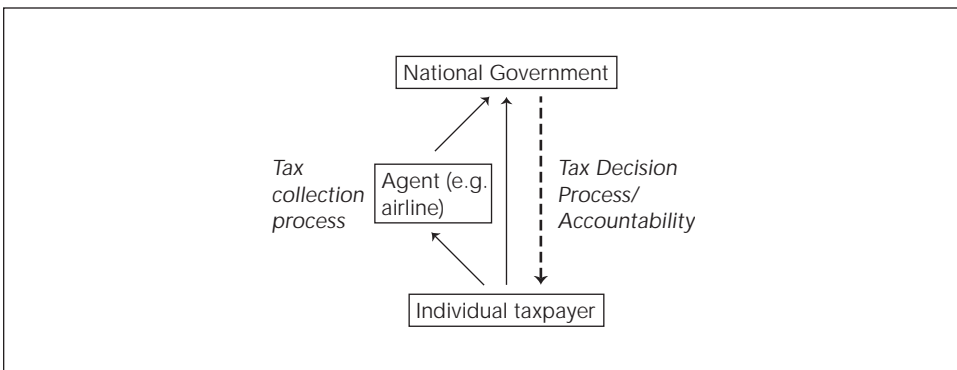
development. But in most instances it is envisaged that there would be a multilateral agreement. Indeed, in the case of the creation of new Special Drawing Rights, the constitution of the IMF requires a (super) majority of members to ratify the agreement before it can be put into effect. Where the source involves multilateral action, then two questions arise under the general heading of “architecture.” In discussing this, I am presupposing that the participating countries have agreed on the form and scale of the action to be undertaken. What we are considering is the shape of the necessary institutions.

First, does the success and effectiveness of the scheme depend on complete adhesion of all countries or all donor countries? Can we have a “flexible geometry,” where it is viable to go ahead with a subset of countries? The European Union, for example, has in the past faced situations where one Member State chose to “opt out” of collective decisions, and there has been flexibility in the resulting institutions. The likely answer to this question varies from one proposal to another. With the International Finance Facility or the global lottery, the failure of some countries to participate means that the scale of the operation is reduced, but it is not undermined. With a carbon tax, any significant opting out may erode the tax base, as producers relocate, and expose participating countries to intense lobbying from domestic interests. In the present political climate, this may be a significant reason for choosing one route over another (I return to political economy arguments in the section on the political economy of development finance).

Institution Types

The second question concerns the institutional arrangements under which multilateral action takes place. Where countries are acting in concert, the organizational structure is important, as is illustrated in this section by reference to global taxation. A flow chart for national taxation is shown schematically in figure 2. National governments determine the rates of taxation and the tax base. Individual taxpayers pay

FIGURE 2.
Fiscal Architecture: National Taxation



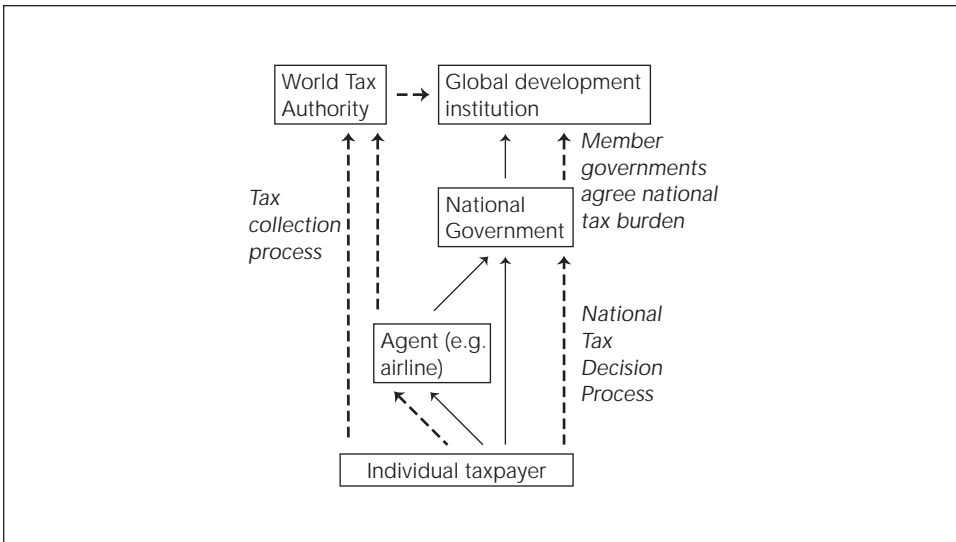
the taxes to the government, which both enforces payment and is in turn accountable to the electorate. Many taxes involve intermediary agents. The individual taxpayer, for example, pays the aircraft departure tax to the airline, which then accounts for the revenue to the government. Employers collect payroll taxes. Retailers or wholesalers collect excise taxes.

One evidently cannot apply exactly the same process to global taxation. We have both global institutions and national governments, and it is the latter that have to agree to the taxes being levied and that are accountable to their electorates. It could indeed be that the global tax is treated as simply a glorified domestic tax, with the revenue being forwarded by national governments to a global spending body (the heavy lines in figure 3). But there are more possibilities, as shown by the dashed and dotted lines in figure 3. If there were an international air transport tax determined at the global level, then the airline could transfer the money not to the national government but to a global tax authority, in which case the new source of finance would bring a new actor into play. This is shown by the dashed lines in figure 3. Whether or not such a World Tax Authority is envisaged is one of the questions that have to be considered. (Such an authority may be different from an international tax organization; see Tanzi 1999.)

The feasibility of creating such a tax authority depends on the universe of taxpayers. In the case of airlines, there is already an international organization (IATA), and the international air travel tax could be seen as part of a membership subscription. The formation of an international body conveys certain privileges and the tax could be seen as a rent for the use of global air space. A World Tax Authority could not deal with taxes paid by individual households, but one could envisage it operating a tax levied on multinational corporations, which would have to be registered when their cross-border activity exceeded a certain amount (just as there is an exemption level for VAT registration in national systems). In the literature on the corporation tax, one of the arguments for such a tax base is that the status of incorporation confers benefits on organizations adopting this legal form. It is normally agreed that this does not justify present levels of corporate income taxation, but a more modest rate of global corporation tax could be seen as a form of benefit taxation for engaging in cross-border economic activity.

Moving in the opposite direction from the introduction of a World Tax Authority is the case shown by dotted lines in figure 3, where national governments retain not only control over the administration of the tax process but also discretion over the tax rates. In this case, participating governments would agree on their national tax liability but retain freedom to decide how the revenue is to be raised. This would in effect be applying the principle of subsidiarity adopted by the European Union. To be concrete, suppose that the participating governments agree that each country should pay a tax related to national carbon emissions. This determines the amount that each participating country has to pay, but the national government would be free to raise the revenue in whatever manner it thought fit. It might consider for example that a tax on air journeys was unfair on those living in remote rural areas, and choose for domestic reasons a different tax base. We would then have a two-tier structure,

FIGURE 3.
Fiscal Architecture in a Global Setting



with the national tax obligation requirement being agreed multilaterally, but the tax implementation being chosen locally.

Conclusions

Proposals for new forms of development funding raise important issues of institutional shape. In designing the architecture of global fiscal system, there is considerable scope for choice. As the references to “flexible geometry” and to “subsidiarity” illustrate, we can learn usefully about the range of alternatives from the experience of supranational groupings such as the European Union.

Leaky Bucket or Positive Sum?

A \$10 billion tax revenue does not mean that \$10 billion is available for new development purposes. As Arthur Okun expressed it in his book *Equality and Efficiency* (1975), transfers are made using a leaky bucket. Put another way, the marginal cost of \$1 extra public funds for development may be more than \$1. On the other hand, there are arguments—usually under the banner of “double dividend”—that there may be efficiency gains, so that the amount in the bucket is actually increased. And the literature on the marginal cost of public funds has shown that there are circumstances when the marginal cost of \$1 is less than \$1 (see Atkinson and Stern 1974; Fullerton 1991; and Sandmo 1998). In this section, I consider these two different perspectives.

Why are buckets leaky? The first source of leakage is the cost of administration. Currency transactors may pay \$ X billion, but $(\$X - \$A)$ billion is the net revenue,

where A is the cost of operating the tax collection and enforcement agencies. The second source of leakage is that a new revenue source may crowd out other sources of development funding. One of the lessons of public finance is that, in calculating the change in revenue resulting from an increase in one tax, one has to take account of the possible impact on the revenue from other taxes. A good example is the international tourist tax. As Clunies-Ross (1999) points out, tourism is an important source of government revenue for a number of poor countries. To the extent that visiting tourists have less to spend after they have paid the tourist tax, these countries will be receiving less sales tax on the purchases made by tourists and would have to be compensated before the tax yields net additional revenue. Similarly, the introduction of a global lottery will affect national budgets. Part of the customer base will be drawn from existing national state lotteries, reducing their revenue. Part will be drawn from spending on private gambling subject to national taxes, so that fiscal revenue will fall.

But these are not the only potential leakages. Most taxes have an impact on the decisions of taxpayers apart from the pure effect of reducing their incomes. In the conventional public finance format, there is a deadweight loss, or excess burden associated with taxation. The currency transactions tax causes people to avoid activities that attract the tax. They will, for example, be inhibited from switching their investment portfolio away from domestic securities toward those denominated in other currencies. This has an efficiency cost, since they are not allocating their investments according to the return at the margin. Moreover, there is a presumption that the distortionary cost increases with the tax rate. The distortion is much more significant with a transactions tax rate of 0.1 percent than for one with a rate of 0.02 percent.

A Double Dividend?

The standard analysis of tax incidence is based on a world of perfectly competitive, perfectly functioning markets. In such a “first-best” context, government intervention—whatever its distributional advantages—has an efficiency cost. In the currency transactions tax example, if it were not for the tax, the market would be efficient. The economies of the world are not, however, well characterized by perfectly competitive, perfectly functioning markets, and one of the major contributions of modern public economics has been to explore the implications of market failure. This has led to arguments that taxes may serve a corrective function: the excess burden may become a benefit. The classic example is a corrective tax on environmental external diseconomies. A tax on the consumption of goods that harm the environment has a positive allocational effect, switching spending away from polluting goods toward those causing less or no environmental damage. In these circumstances, switching behavior is desirable. Moreover, if the revenue is used to reduce other taxes that have a negative allocational effect, we have a “double dividend” (for overviews, see Goulder 1995 and Sandmo 2000).

The double dividend can arise in the present case in two ways. If the new source is seen as an alternative to ODA, then it can both make its own efficiency contribution

and allow a reduction in the taxes presently used to finance ODA. This is a good example of the differential incidence argument in operation. Taxing air transport will not only reduce the environmental damage of tourism but also allow the income tax to be reduced, so making staying in the office financially more attractive at the margin. Taxing carbon may allow payroll taxes to be reduced, leading to a fall in unemployment. There is an “employment dividend” as well as an “environmental dividend.” The second possibility is that the new source is a net addition to development resources. In this case, the double dividend consists of the reduced environmental damage *and* the benefit from achieving the development goals.

Questioning the Double Dividend Argument

The double dividend idea appeals to the imagination. However, one has to ask why, if a new revenue source can generate a positive sum outcome, have national governments not already adopted such a policy? Why do OECD countries not operate lotteries to raise funds to finance their ODA? If a carbon use tax would reduce external diseconomies, why is this not already reflected in domestic taxes? If governments could reduce unemployment by a switch in taxation, why have they not already done so? To this central question there are several responses. Here I consider two. First, it may be that the dividend is global rather than national. Second, it may be due to the political economy of taxation and government finance (see the next section).

National governments may not impose corrective taxes because the benefits accrue disproportionately outside their boundaries. The switch from general taxation to carbon use taxation may be positive sum globally but negative sum nationally. The revenue calculations of governments take account only of receipts and payments to the national treasury. The impact of spillovers from one state to another is a staple of fiscal federalism.² Under certain circumstances, local governments may undersupply public goods that benefit people living outside their borders; they may overtax where taxpayers come from outside. There are fiscal externalities. In the present case, there is a possible undersupply of fiscal correction to external diseconomies because the costs spill over to others.

How is this potential argument for additional environmental taxation affected by the fiscal architecture? We are presupposing that the tax is indeed levied on individuals and firms in the form of a carbon levy (or other environmental tax base). Suppose, however, that we have subsidiarity, where the burden on national governments is determined by their carbon emissions but the national governments are free to decide how to raise the revenue. As noted above, they may for political or other reasons choose another tax base. It is still, however, the case that the government faces a financial incentive to reduce its emissions by other policies, such as auctioning emission permits or regulation.

Finally, global spillovers apply at the macroeconomic as well as the microeconomic level. One of the arguments for the creation of SDRs is that they would provide a macroeconomic stimulus to the world economy. The macroeconomic literature has extensively discussed the problem of international policy coordination failure.

The existence of failure does not mean that policy coordination necessarily leads to efficiency gains, but it is possible that there may be a global positive sum outcome to a creation of additional liquidity. Whether this is so depends on the view taken of the working of the macroeconomy. It also depends on the extent to which the transfers of SDR allocations from rich to poor countries lead the latter to increase spending. Clark and Polak (2002) argue that a regular allocation will not lead to a rise in spending, most countries adding to their reserves (which in itself has a development benefit); but this may not apply where there are substantial transfers of SDRs to poor countries.

Conclusion

The calculation of the leakage, or extra dividend, is a complex matter. There may be a double dividend when we recognize departures of real-world economies from the assumptions of perfectly competitive, perfectly clearing markets with full information. The double dividend may be global in character, reflecting the pervasive problems of international coordination, but securing the dividend depends on policy design and on the working of the world economy.

What Is the Political Economy of Development Finance?

One reason why, under the subsidiarity architecture described above, a national government may choose a different tax base is that it faces political opposition to a particular form of taxation. The fuel tax protests of 2000 in Europe provide a good illustration. All politicians are aware that the operation of a tax system requires a degree of social acceptance. A democratically elected government may have a mandate at the ballot box to introduce a new tax, but if the population decide in sufficiently large numbers that the tax is not acceptable, then its collection becomes, at best, prohibitively expensive and, at worst, impossible. The attempt by Mrs. Thatcher to apply the poll tax in the United Kingdom is an example of the limits to government action, and U.K. taxpayers are normally a passive group. In the United States there was a major tax strike from 1930–3 in Chicago, and there is the more recent history of Proposition 13 in California (see, for example, Kaufman and Rosen 1981). The fact that both of these reactions were localized reflects the fact that tax acceptability is a social and not a purely individual phenomenon. There is contagion of individual attitudes and people are influenced by social pressure. Social pressure can operate in both directions; it may support honesty in tax paying, not least where tax payments are public information, as in certain Scandinavian countries.

The behavior of the state, and its interactions with citizens, has long been an important part of the subject matter of public economics. The title of the landmark book in the field of public choice theory by Buchanan and Tullock (1962) is *The Calculus of Consent*. Analysis of public policy has to take account of the process by which policy is made and administered. In this respect a false dichotomy has been

created between public choice theory and welfare economics. These are concerned with different questions. The purpose of the literature on optimum taxation, as a branch of welfare economics, is to illuminate the structure of arguments that take place within a political context (see Atkinson 1995). It seeks to test these arguments to see whether the policies proposed in the political debate follow from the professed objectives of the protagonists. It does not address the question of whether the policy is likely to be adopted, for which a public choice or political economy analysis is necessary.

Political economy considerations are indeed important in the present context. To give an example, let us consider the proposition that the double dividend argument strengthens the case for a tax on carbon use as a source of development funding. This is described by Clunies-Ross as the “two birds” test: “the collection of revenue is itself linked to the achievement of some widely desired end, such as a recognized global public good, so that two birds can be killed with one stone” (2003, p. 5). This is related to the classic model of “log-rolling” where two politicians agree to support each other’s pet projects. However, the argument assumes a particular distribution of benefits and losses from the projects, the former being concentrated and the latter diffuse (Drazen 2000, p. 330). In the present case the reverse may be true: the costs may be largely borne by a small interest group, and the benefits widely dispersed. To be more concrete, opening up two fronts also invites attack from both directions, particularly if the two objectives require taxes at very different levels.

In several of the proposals considered here, the tax required for allocational reasons is likely to be considerably higher than that needed to add significantly to development funding. The Tobin tax required to raise \$50 billion is a much lower rate than that suggested for stabilizing exchange rates. (Taking this argument to the limit, we may note that a carbon tax that reduced emissions to zero would be an environmental success but a revenue failure.) The double dividend case risks attracting the hostility of those who oppose the exchange stabilizing level of taxation, who would not necessarily oppose the much lower rate envisaged here. In deciding whether or not there are dangers in linking the two arguments, we need to consider the motives and power of different pressure groups and lobbies. As has been pointed out by Sandmo (2000, chapter 7), we can apply to environmental taxes the analysis made by Grossman and Helpman (1994) of the influence of lobby groups on foreign trade policy.

Political Analysis with Nuance

What is required is a more nuanced political analysis of the coalitions likely to form in support of or opposition to different proposals. Moreover, it is again clear that the counterfactual is important. The case may be easier to make if the unpopular corrective taxes are being used as a substitute for other taxes (differential incidence). Alternatively, people may accept the need to pay corrective taxes if the revenue is being used for an approved purpose. Political economy arguments may mean that it is not possible to separate raising revenue from the use to which it is put. The literature

on development assistance has extensively discussed conditionality and its impact on aid effectiveness. These may take the form of tying aid to particular uses. A good example has been debt-for-nature swaps, where environmental NGOs such as the Worldwide Fund for Nature have cancelled developing country debt in exchange for agreed conservation projects. It may take the form of tying aid to the adoption of particular policies.

Much of the literature is sceptical about conditionality (see, for example, Kanbur 2000), but this does not mean that conditionality cannot affect the willingness of taxpayers to pay taxes, or donors to make transfers. People may be more willing to pay a tax on international travel if they believe that the proceeds will be used to supply fresh water in regions without a safe supply. Here it is useful to separate the *perceived* effectiveness and the *actual* effectiveness of the funds. We have to ask whether earmarked taxes can be more acceptable on account of their professed objectives, or whether it is the actual effectiveness of the use that determines the degree of acceptance.

Conclusion

The political economy of different proposals is an important part of the story, requiring a nuanced political analysis of the likely coalitions of support and opposition as well as a careful specification of the exact nature of the proposals.

Conclusions: Sober Analysis and Moral Commitment

To summarize the broad answers given to the four questions posed above:

- We need to specify clearly the role of new sources of finance, which may be additional to, or an alternative to, increased ODA; in the former situation, the case has to be made in terms of enhanced funding for development; in the latter situation, the case is being made that the innovative sources are a better way of funding a given development effort.
- In designing the architecture of global fiscal system, there is considerable scope for choice; we can learn usefully about the range of alternatives from the experience of supranational groupings such as the European Union.
- The calculation of the leakage, or extra dividend, is a complex matter. When we recognize departures of real-world economies from the assumptions of perfectly competitive, perfectly clearing markets with full information, there may be a double dividend. The double dividend may be global in character, reflecting the pervasive problems of international coordination—but securing the dividend depends on policy design and on the working of the world economy.
- The political economy of different proposals is an important part of the story, requiring a nuanced political analysis of the likely coalitions of support and opposition, as well as a careful specification of the exact nature of the proposals.

If we are to generate the additional flow of resources required to meet the MDGs, then we need both sober analysis of the alternatives and moral commitment. This paper has sought to apply the lessons of public economics to these key issues of global public policy. It has been concerned with the grammar of argument, seeking to elucidate the key issues. Opposition often arises as much from misunderstanding as from genuine differences. Clear identification of the alternatives allows us to separate those that are promising from those that are unlikely to be acceptable. But no progress will be made without moral commitment. Here too the intellectual debate has an evident role to play. The flowering of literature on cosmopolitan justice in the fields of political theory and philosophy may well influence global public finance in the same way that utilitarianism influenced national public finance a century ago.

Notes

I am grateful to anonymous reviewers for helpful comments on earlier versions of this paper, which have led me to make significant changes. The paper originates in a project carried out for the World Institute for Development Economics (WIDER) on “Innovative Sources of Development Finance,” published in Atkinson (2004). I have drawn heavily on the research of the contributors to this volume: Tony Addison, Ernest Aryeetey, Robin Boadway, Abdur Chowdhury, George Mavrotas, John Micklewright, James Mirrlees, Machiko Nissanke, Agnar Sandmo, Andres Solimano, and Anna Wright. I would like to express my appreciation of their contribution to the ideas set out in this paper.

1. This is the subject of the chapter by Mirrlees in Atkinson (2004).
2. The lessons for global taxation from the literature on fiscal federalism are discussed in the chapter by Boadway in Atkinson (2004).

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Comment on “Innovative Sources for Development Finance: Global Public Economics,” by Anthony B. Atkinson

ADRIAN WOOD

I took on this task because I wanted an excuse to read Atkinson’s paper. I anticipated that it would be both interesting and of practical value, but I failed to anticipate one likely difficulty for any commentator. Tony Atkinson is famous for his outstandingly clear and logical application of economic theory, so I was unlikely to find faults. He is also famous for his good judgement and balanced and reasonable approach, so I was unlikely to disagree with him, either.

All these expectations were fulfilled when I read the paper. It is innovative, useful, and admirably short. I can pick no holes in its application of public finance theory, and nor do I have any quarrel with its approach to the issues. The paper is a valuable contribution in itself, and it makes me optimistic about the other outputs of the World Institute for Development Economics Research (WIDER) group for whose work program it is in part a design. In commenting, I also want to play by two of the self-imposed rules of the paper. First, I want to avoid issues connected with the use of aid and focus instead on the financing side. Second, I want to avoid discussion of particular proposals, such as the carbon tax or the International Financing Facility (IFF), and instead address all such proposals in general terms—which is one of this paper’s innovative features.

My one, but not small, comment is that it might be illuminating, especially in the WIDER work program, to turn the approach of the paper on its head, by starting with the political economy and only later bringing in the public finance technicalities. In this inverted structure, one would not take the financing proposals (the various new ideas) as exogenous, but rather try to explain their existence and nature within a political economy framework. In other words, I am suggesting that some analysis of the *causes* of these proposals would permit a better understanding of their likely *consequences* and indeed of their feasibility. For example, the question of additionality—the first addressed in the paper—is one to which different answers

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Annual World Bank Conference on Development Economics—Europe 2004

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might emerge from a political economy analysis than from a purely technical analysis of the various different proposals, and hence might be helpful in choosing among them (and in designing further new proposals).

My suggested approach has been applied in other economic contexts, for example asking why trade policies are what they are and why they might change, rather than treating tariffs and other policy barriers as exogenous (Rodrik 1995). My suggestion, moreover, is by no means inconsistent with the spirit of the paper—indeed, it was inspired by reading and reflecting on the final section of the paper. It would, however, require a fuller specification of the proposals than is currently in the paper—not one by one or in detail, but identifying a small set of generic characteristics of which each proposal is a different-shaped package.

How might one go about this political economy analysis? My suggestion would be to start with a very simple model. There would be one developed country (the OECD), with a composite multilateral institution as its aid agency. One could then write down some macroeconomic accounting identities:

$$\begin{aligned} Y &= C + G + A + D + L \\ T &= G + A + L \\ B &= A + D \end{aligned}$$

where Y is gross domestic product (GDP), C is private consumption, G is government expenditure other than aid, A is official aid, D is private donations and transfers to developing countries, and L is the deadweight loss from taxation (which, as Atkinson notes, could be either positive or negative). Taxation, T , is the sum of (and determined by) A and G , plus or minus the deadweight loss. The total transfer of resources to developing countries, B , is the sum of A and D . Any new financing proposal would be an addition either to A or to D or some combination thereof. It would be easiest to start with a one-period version of the model, although to handle the IFF and other important aspects of aid, one would need a multiperiod or net present value extension of the model.

Then one comes to the hard but interesting bit, which is to write down behavioral specifications that determine the values of this set of variables (probably taking Y as given, thus in effect focusing on shares of GDP). Given these specifications, one could subject the model to shocks—altering exogenous variables or parameters of the behavioral relationships—and see how the values changed. In other words, one could do some comparative statics. An important feature of the model, of course, is that if it were initially in equilibrium, and if no exogenous variable or parameter changed, then either there would be no new financing proposals or new financing proposals would have no net effect on outcomes—they would not be implemented, or they would be offset by other adjustments in the system. In assessing the various specific proposals, it would thus be important to look at their effects, if any, on the exogenous variables and parameters, and hence to ask whether and to what degree they might increase the equilibrium value of B .

A purely economic approach to the specification of this model would be to think in terms of an equilibrium that in some sense equated marginal utilities, particularly

of A , G , and C . The marginal utility of aid depends on how much people value the well-being of their fellow human beings in poor countries, but also on how effectively they think aid is spent. Either of these determinants of the marginal utility of aid could change exogenously: for example, publicizing the Millennium Development Goals might increase the value that people placed on the well-being of those in developing countries, while the latter determinant might be altered by new evidence on aid effectiveness.

We can see from the identities that there is one specification that will not work: the single voter or unanimous voter model. For such a specification could not explain the coexistence of A and D . This coexistence is an important feature of reality: it implies that some members of society (those who finance D) would like A to be higher than the majority or the median voter has chosen (this is evidently truer of gifts and similar transfers than of remittance of earnings). To look at it another way, people always have the opportunity of subjecting themselves to voluntary self-taxation to supplement official aid flows. This possibility is, of course, asymmetrical: people cannot ask for part of their taxes back if they think aid flows are too high. As a consequence, the existence of this voluntary channel is likely to make A smaller than it would otherwise be.¹

So, as in most political economy models, one would need a multi-actor framework, with people and groups operating both through markets and through political processes. In this particular sort of model, an essential complication is the multi-layered structure of national governments within the OECD block, a feature that is nicely discussed in the second part of Atkinson's paper. The analysis would also need to recognize that each of these national governments has its own bilateral aid channel in addition to the collectively owned multilateral channel. The division of each country's aid between these two sorts of channel is an important and rather neglected decision, which is analogous in some ways to the division of B between A and D (a preliminary exploration is in Dyer et al. 2003).

In developing this model, one would probably also want to bring in non-OECD countries explicitly. One obvious category of such countries is aid recipients. However, one might also want to consider middle-income countries—those that in general are neither substantial donors nor substantial recipients of official aid, but that might either benefit or lose from some of the innovative financing proposals. A fuller version of the model should probably also include profit-seeking flows of private finance to developing countries.

Let me not go further. I hope that I have provided enough detail to make clearer the nature of the general suggestion from which I started. It may be that models of the type I have sketched already exist somewhere in the large economics literature on aid. But even if it does no more than stimulate them to find an existing model of this kind, I hope that my suggestion will be helpful to Tony Atkinson and his team in carrying forward this intellectually interesting and practically important research project.

Note

1. A referee has pointed out that this is not necessarily so: official aid and private donations may not be, as I assume, substitutes. They could be unrelated—for example, if donations were motivated simply by some tax advantage; or they might even be complements, if official aid stimulated awareness of development and hence promoted donations (or vice versa).

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Comment on “Innovative Sources for Development Finance: Global Public Economics,” by Anthony B. Atkinson

PAUL BERND SPAHN

Anthony Atkinson raises a number of essential points to flesh out modern issues of global public finance with a view to addressing the financing of global public goods, in particular the funding of economic development and poverty eradication. The focus of his paper is on theoretical aspects of new and innovative forms of funding, both private and public, and it covers a wide area of topics from increasing remittances by emigrants and donations to global taxes, a “New Marshall Fund” (the “International Finance Facility”), and Special Drawing Rights (SDRs). He further discusses problems of institutional design for implementing these new (or old) instruments, points to possible “double dividends” in development finance, and addresses question relating to the political economy of new sources. It is indeed an ambitious and extensive agenda for the WIDER project he is chairing.

Where to Start?

Let me begin by drawing a systematic picture for external development finance (see table 1). It basically works through private and public financial instruments (including jointly financed programs), and it is channeled either through the current account or the capital account. In a future globalized financial architecture one may want to add a further dimension, which I call the “global account.” Let us examine this instrument matrix more carefully, although time restrictions will not permit to discuss it comprehensively.

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TABLE 1.
Instruments to Realize the Millennium Development Goals

| Type | Funding source | Private sector | Public sector | |
|------------------------|---|---|--|---|
| Current account | <i>Trade balance</i> | <ul style="list-style-type: none"> Net export receipts Compensation for use of sovereign rights, tourism Remittances, donations | <ul style="list-style-type: none"> Technical assistance, compensation for "fiscal spillovers" Government grants (ODA), "solidarity levies" Stabilization schemes | |
| | <i>Balance of services</i> | | | |
| | <i>Net unilateral current transfers</i> | | | |
| | <i>Price effects (TOT)</i> | | | |
| Capital account | <i>Capital flows</i> | <ul style="list-style-type: none"> Direct investment Net private lending <ul style="list-style-type: none"> • short term • long term | <ul style="list-style-type: none"> Net government lending <ul style="list-style-type: none"> • bilateral • multilateral • untied • conditional | |
| | | Private-public partnerships/ International Finance Facility | | |
| | | <i>Net unilateral capital transfers</i> | Debt restructuring, debt relief | Debt relief, bailouts, debt forgiveness |
| | | <i>Wealth effects (exchange rate)</i> | | Monetary policy, Int'l reserves, ERND |
| Global account | <i>Current balance</i> | <ul style="list-style-type: none"> World heritage fund, global lottery | <ul style="list-style-type: none"> Tax sharing, Global taxes on <ul style="list-style-type: none"> • International corporations • Carbon use • Forex transactions (Tobin) • Arms trade • Air transport | |
| | | | <i>Capital balance</i> | Global "Marshall Fund" |

Source: Author.

Public Economics and Financing Development through the Current Account

If we look at the traditional instruments of development finance that work through the current account, we might deem these to be largely exploited and to exhibit little potential for new or extended funding. This is of course not true. If we simply consider the trade balance of developing countries, we have to stress over and over again that access to world markets is severely restricted for these countries. The

costs of Northern protectionism for developing countries is roughly the same amount as ODA: US\$50 billion annually on a conservative estimate (Watkins 2002). This illustrates an inconsistency between trade and development policies of industrialized countries, and stresses the need for a global trading system where all participate on equal terms, at least formally. It emphasizes the importance for the developing world of the new trade round launched at Doha.

If we look at the balance of services we can identify benefits drawn from regular hard-currency revenue streams for using sovereign rights (such as fishing rights, overfly rights, landing rights, royalties), as well as from tourism (including taxes on tourists) and other internationally traded services (such as telephone receivables). It might be suspected that this potential remains underexploited in the developing world both for external and internal reasons: on the one hand, it is hard to fix a fair price for sovereign rights; on the other hand, much depends on the internal political conditions of these countries, as they may either attract or deter potential users of these services, in particular tourists.

There are also public services delivered to developing countries, such as technical assistance, which are of course crucial for improving the quality of development aid. However, these services often draw on resources from other programs such as ODA, or they are financed from government lending, which stresses the relevance of the “differential incidence” issue addressed in Atkinson’s paper.

Another point discussed by Atkinson is that of interjurisdictional payments for international spillovers. Whether compensations payments based on this efficiency argument are at all relevant for development finance is doubtful. The debt-for-nature swaps, often cited in this context, appear to be driven mainly by the need to find an honorable way out of an apparent insolvency, and they often represent disguised bailouts. Seldom are they based on contractual agreements to compensate spillovers *ex ante*. But they could indeed become a promising stratagem for the future.

Unilateral private transfers such as remittances and donations are also traditional forms of funding development. It remains to be seen whether revenue from these sources can be increased, and how. Again, protectionist attitudes of the developed world limit their potential. Impediments are deeply entrenched in labor and migration laws of the industrialized world. As long as a Polish worker caught at the German border is treated like an ordinary criminal, even one year before Poland’s accession to the European Union, just because he has arbitrated against German wages, there is little hope that remittances will become a more buoyant source of development finance.

As to official transfers from national public budgets, these appear to have reached their limits too. ODA is stagnating and has even declined in relative terms. This is clearly a matter of commitment by public authorities, and of intensifying rivalries among budgetary entities within donor countries ensuing from economic stagnation and shrinking budgets. And where there is no political commitment to assign budgetary resources to development aid, the chances for introducing global taxation must look dim.

Another political economy point made by Atkinson is that “it is not possible to separate raising revenue from the use to which it is put.” It makes a case for tying aid to particular uses. It could also motivate a “Third World solidarity levy”—for instance, a surcharge on the income tax in richer countries. Germany has successfully

used this instrument for financing reunification; whether it would suit for financing development at a global scale, and whether a sufficient number of industrialized countries would “opt in” to such a scheme, remains to be seen.¹

Public Economics and Financing Development through the Capital Account

Development aid also flows through the capital account. Again this cannot be addressed satisfactorily under my time constraint. Let me just draw your attention to some key issues as I perceive them:

First, Atkinson has briefly touched upon the issue of conditionality. This is particularly relevant for government lending programs. Where such sources are tied to particular uses; where conditionality insists on minimum quality standards; and where strings are attached to improve institutions, processes, and policies, the allocation of resources can be enhanced, which makes a strong case for conditional lending. Cofinancing, respectively matching requirements, might leverage these positive effects, in addition to revealing the preferences of the recipient governments. However, where “tied aid” implies bilateralism in that a loan must be spent on goods and services from the donor country, this reduces the effectiveness of the program and can be costly for the beneficiary. It also represents a “leaky bucket” variant of development finance. Multilateralism with competitive procurement procedures typically amplifies the output of services per unit of finance received, and should therefore be expanded against enduring political resistance.

Second, another “price” effect often escapes the discussion in the context of development finance: the exchange-rate or “wealth” effect. I consider this issue absolutely critical for the debate on development finance, because it might severely frustrate financial aid.

During the last decade we have experience dramatic currency devaluations of industrialized, emerging, transition, and developing countries. Each time the devaluation has meant a redistribution of wealth between donor and lending countries. If it is true that the wealth effect for emerging, transition, and developing countries might have approached the total amount of ODA since the beginning of the 1950s, this appears to be more than just a negligible revaluation in the capital account.

Stabilizing exchange rates is therefore critical for a successful development strategy. It is typically addressed through monetary policy measures, including currency-board arrangements (such as those for the CFA-zone or, more recently, in Argentina or Bosnia and Herzegovina). In addition, the international community has duly begun to insist on institutional reforms in the financial industry—on greater transparency, financial reporting, and the analysis of political and market risks. After having emphasized capital market liberalization during the 1990s, the present philosophy of the IMF exposes the importance of institution building and monitoring.² Nevertheless, the focus of the orthodoxy still dwells on interventionist monetary policies, although these exhibit a number of severe drawbacks (as I have explained elsewhere).³ And it insists on a country sacrificing its valuable reserves just to defend

the exchange rate, which is bizarre. Moreover, the orthodoxy underscores the need to maintain high interest rates for a financially strained country, which must jeopardize real economic growth.

The interplay of short-term capital flows, price and exchange-rate changes, monetary interventions, and economic fundamentals (including fiscal policy) is highly complex and cannot be discussed in this comment. But it relates to a reoccurring theme linked to “innovative sources of funding”: the Tobin tax.

Tobin’s argument is well documented and needs no elaboration here. I am personally skeptical as to the potential of the “classical” Tobin tax to stabilize exchange rates. It simply won’t work.⁴ However, this does not preempt fiscal options at all. Within a more intricate institutional design, a tax on currency transactions could indeed become a stabilizing element in the financial architecture of the future.

I am alluding to my “exchange-rate normalization duty” (ERND), proposed in the mid-1990s. In the same way that a global carbon tax would exhibit a “double dividend” in that it generates revenue and reduces negative externalities at the same time, the ERND would ideally tax “negative externalities” associated with excessive exchange-rate volatility. In practical terms, these “externalities” can be defined by reference to a price “corridor” surrounding a moving target rate. For normal operations—that is, trading at prices “within the corridor,” the tax would be dormant and raise no revenue at all (since no such externalities exist); this secures efficient trading in financial markets. The ERND would, however, function as an *automatic circuit breaker* whenever there are speculative attacks against the currency (if they materialize at all under the scheme) that lead to instantaneous deviations from the corridor. It would also deter speculative short-term capital inflows, and would act as an insurance device for long-term investors.

Of course, the scheme is unable (like any other short-run stabilizing monetary policy measure) to compensate for structural problems of the currency. Redressing an ailing economy is *not the purpose* of the ERND. On the contrary, the ERND allows a continuous and smooth adjustment to “economic and political fundamentals.”

Is the exchange-rate normalization duty a new source of development finance? If it works as it should—that is, if it suppresses negative externalities—it would not raise revenue, which *all* Pigovian taxes, including environmental charges, should do. The carbon tax is in a different position here because carbon emissions will never be fully avoided.

I conclude by making some comments on what I called the “global account.” Again for reasons of time I shall concentrate on global taxes and especially on the Tobin tax.

Atkinson emphasizes the efficiency costs of a currency transactions tax. Whether he argues against the tax is not clear. But he is definitely aware of the fact that *all* taxes have efficiency costs—except a poll tax. I maintain that the efficiency costs of a Tobin tax with a small rate of one basis point will have negligible excess burden because it represents only a fraction of the cost savings that forex traders have enjoyed over the last two decades thanks to new technologies.⁵ And a Tobin tax might generate significant revenue even at that small rate. Moreover, administrative costs are practically nil given the high degree of concentration and computerization of the market.

Does the tax require a global, multilateral approach as Tobin suggested? Of course this would be desirable, but it is highly unrealistic given the position taken by the United States government in particular. Could it work if introduced unilaterally? Not if a single country uses the instrument; forex traders would simply shun its financial market. But if introduced by a group of countries in the same time zone, for instance the European Union plus Switzerland, and at a rate that does not disturb liquidity trading, it could indeed become an innovative source of development finance.⁶

One last word on Special Drawing Rights. They would indeed increase world liquidity, but the question is whether development finance suffers from liquidity shortage. Under the Bretton Woods System when the U.S. Federal Reserve dictated the supply of base money for countries adhering to the fixed-exchange regime, liquidity might have been a problem during the 1960s. Under flexible exchange rates and globalizing financial markets, liquidity is *not* the problem. This is why we should bury SDRs for good, at least for development financing.

Thank you for your attention.

Notes

1. An issue often side-tracked in discussing development finance relates to price effects on the flows of funds to developing countries, in particular changes of the terms of trade. These changes often thwart the effort to fund development programs through direct financing, and they must therefore form part of an integral view of development finance. There are attempts to control TOT effects through stabilization schemes with their particular problems, which cannot be addressed more fully here.
2. See in particular the "Global Financial Stability Report" of the International Monetary Fund, Washington DC, March 2003.
3. Spahn (2002) p. 311ff, in particular chapter 2.
4. See also Spahn (1995).
5. In the early 1990s marginal costs might have been five to ten times higher than the proposed tax rate of one basis point in the most liquid forex market. In less liquid markets the costs were (and are) significantly higher.
6. See Spahn (2002).

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Promoting Entrepreneurship: What It Means, and What It Means for the Middle East and North Africa

FLORENCE EID

Private equity finance in the Middle East and North Africa is yielding job creation rates of up to five times the average regional rate. Illustrative developments in the financial and educational sectors suggest a new generation of reforms. These include proactive financial instruments and incentives such as private equity funds, as well as complementary knowledge-development programs. A regional private equity industry survey assesses these changes and relays the need for reforms. The paper reports on the findings of this survey and underscores the growing interest in entrepreneurial finance in research, business schools, and the financial sector, and explains how these can help meet the challenge of employment generation. The paper's conceptual contribution is to show how a paradigm shift has renewed interest in the entrepreneurial firm through agency theory in organization economics, in contrast to the production function, black box conception of the firm from neoclassical economics. The paper makes recommendations for further research in key questions related to the promotion of entrepreneurship for economic development.

Some say discussions of entrepreneurship are nothing but “old wine in new bottles.” Yet we have seen a growing interest over the past 15 years in research, business schools, and the financial sector in furthering ideas, designing educational programs, and creating funds that promote the study and practice of entrepreneurship. Since this trend does not seem to have abated with the recent market bust, the question is why the growing interest in studying and discussing a well-known concept? What is the relevance is all of this to developing regions such as the Middle East and North Africa?

This paper draws on developments on the ground in this region as arguments for promoting entrepreneurship that go beyond the traditional approach of supporting the private sector through supply-side institutions—such as providing a hospitable regulatory and macroeconomic environment. It points to a new generation of

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Annual World Bank Conference on Development Economics—Europe 2004

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proactive reforms and programs, including creating technically “smart” financial and educational institutions through legislation and incentives.¹ These include instruments such as private equity funds and policies that reorient university education and support related knowledge-development programs in the private and nonprofit sectors. The task of providing the right regulatory and macroeconomic environment is no less important, and indeed such reforms are key to maximizing chances of success for entrepreneurship. However, they are no longer sufficient, especially given the Middle East and North Africa’s “lost decade” (the 1990s) and the urgency of creating jobs and boosting private sector competitiveness. In this paper, I point to examples of institutions being used to promote entrepreneurship in various countries in the region, and propose ideas for both research and policy. As such, this “issues paper” is written as a reflection on empirical developments, drawing on compelling initial data from the region that confirm the need for further inquiry along the same lines. The conceptual underpinnings of the argument stem from recent developments in agency theory.

Entrepreneurship: What’s New?

Various definitions of the term *entrepreneurship* exist. This paper adopts a simple one: the creation of new businesses that prosper and create jobs (Kirchhoff 1994). Among the first economists to talk about the role of the entrepreneur in economic development was Schumpeter (1934, 1976), with his discussion of entrepreneurial innovation and creative destruction, which serves as a catalyst for economic growth. Schumpeter’s work was intellectually motivated by the absence of entrepreneurship from the neoclassical model. The neoclassical approach essentially viewed firms as “black box” production functions, and therefore de-emphasized the role of individuals within them. It also left little room for distinguishing between firms that were innovative and those that were not.

Contributions to the field of economics by the likes of Whyte (1956) and Galbraith (1952, 1958, 1967) led to the fairly widespread view (influenced by the post-Depression, post-World War II United States) that large firms were a preferred source of employment creation, and presented a model of wealth creation and distribution dominated by large corporations, big government, and large labor unions. Meanwhile, development economists were justifying the state-led approach to development they prescribed for the “Third World” based, partly, on their perception of low entrepreneurial capacity there (Hirschman 1958). In neither approach were there innovative entrepreneurs creating market chaos (Schumpeter 1939). Instead, the neoclassical approach conceived of systematic, frictionless markets, with buyers and sellers responding to price fluctuations that result in new points of equilibrium. This neater, more easily modeled approach won the day as discussions of the role of entrepreneurship in capitalism were relegated to the handful of academics who studied “small business.”

Over the past two decades, micro-based research in information economics has seen a departure from the neoclassical understanding of the firm, as models about

incentives, innovation, influence, negotiation and renegotiation, and power and authority have taken center stage (Jensen and Meklin 1976; Hart and Holmström 1987; Aghion 1995; Laffont and Tirole 1993; Gibbons 1997), including key results about how large firms can quell innovation (Holmström and Milgrom 1994; Hart and Oulton 1996). Related research on the problem of agency cost reduction suggested that financial intermediaries, namely banks, play a central role (Diamond 1984; Fama 1985; Stiglitz 1985). Further research began to show how venture capitalists solve a more extreme form of the agency problem, one that is beyond the monitoring and certification role. This literature highlights two key roles played by venture capitalists: value-added support and governance control (Admati and Pfleiderer 1994; Berglöf 1994; Gompers 1995; Hellmann 1998; Hellmann and Puri 2000a,b; Kaplan and Strömberg 2003; Lerner 1995; Sahlman 1990). While these contributions mostly focused on the relationship between investors and companies (invested in), a further set of papers sought to explore the role of financial institutions as they fit into the broader economic system (Bebchuk and Roe 1999; Gilson 1996; Gilson and Roe 1993; Roe 1998).

Of particular relevance to this paper is the theory of asset complementarities, first developed by Milgrom and Roberts (1990, 1994, 1995), which explains how equilibrium congruence between agents is achieved when agent actions are mutually enhancing.² This framework offers an extremely useful endogenous understanding of institutions with multiple equilibria. The key insight here is that an institution, such as a private equity fund in country *X*, can have impact and is viable depending on what institutional equilibrium exists in country *X*. A necessary property of any equilibrium with complementarities is that any single deviation is unprofitable. Any initial institutional change has to be accompanied by further changes in the system so that the system can move toward a new equilibrium. If not, some agents either have to be willing to incur losses or their losses have to be covered by the government. Applications of these ideas lead to conclusions about the importance of coupling innovations in financial intermediation (for example, the creation of private equity funds) with appropriate institutions including ones that facilitate transactions and provide incentives (such as technically “smart” legislation) and others that create “deal flow” and bring forward entrepreneurial talent (both linked to educational and business policy interventions).³ A private equity fund created in an environment with no deal flow and/or inappropriate legislation, for example, does not benefit from the complementarities necessary to move the economic system to new points of equilibrium. In such a setting, the fund itself is of limited effectiveness and viability. These contributions are key to a better understanding of how to promote entrepreneurship for economic development.

In addition to theoretical developments in economics, empirical research on industrialized countries managed to underscore, apparently not without creating controversy with the “old” school (Kirchoff 1994), the importance of entrepreneurial firms in job creation in the United States (Birsch 1987) and the role of innovative, flexible small firms in economic development from countries throughout the world (Schmitz 1993; Schmitz and Musyck 1993; Späth 1993; Nadvi and Schmitz 1994). We have

also seen a simultaneous mushrooming over the past 20 years of literature on the role of microfinance and microenterprises in economic development, especially poverty alleviation. Much of this literature tells tales of small businesses that attract attention either because they are run by shoe-string entrepreneurs in adverse settings, or because they are managed/owned by especially entrepreneurial women in settings where women do not run businesses, or because they are entrepreneurial in how they manage to operate in the “informal economy.” In virtually each of these accounts, one finds a discussion of entrepreneurial talent that explains daring innovation, overcoming negative externalities, and success in adverse markets. Behind each account lies entrepreneurial talent for which the neoclassical “black box” did not account.

Also, the past decade of bounty on financial markets has played a central role in giving the subject of entrepreneurship a shot in the arm and a polished cachet. As more money chased after fewer ideas, the 1990s needed some method to the madness; hence we saw the development of a whole industry of business plan producers and consumers, ranging from the professor and the innovator to the venture capitalist and the consultant and the bankruptcy lawyer. Now that the dust has settled, we know that the popularization of the private equity industry (especially its venture capital component), and the proliferation of its product range and lessons from its failures, have yielded valuable experience. Much of this experience is carried back to the developing world through young professionals who, if they choose to return to their countries, tend to be interested in contributing by applying what they learned elsewhere.⁴ The challenge for policy is to create the institutional complementarities necessary for such professionals/entrepreneurs to contribute their talent, instead of contributing to the brain drain.

A Perspective from the Middle East and North Africa

This paper is motivated by two experiences and constitutes a response to increased attention in both research and policy spheres to the importance of finding ways to promote entrepreneurship in the Middle East and North Africa. The first experience is an interuniversity business plan competition, open to the private sector, that I launched with entrepreneurs and university students to generate business ideas in Lebanon. The students dubbed it “Spark.” The model was the MIT 50K Entrepreneurship Competition, which has had an impressive track record over the past 14 years and has inspired hundreds of competitions around the globe.⁵ Although the Lebanon Entrepreneurship Competition (Spark) was launched at a time when the market had just gone completely flat, in the fall of 2001, our results have been excellent (in terms of turnout and success story potential), and now we are planning to take the competition to the regional level.⁶

Second, this paper is motivated by a set of conclusions from a paper on foreign direct investment (FDI) in the Arab world that I cowrote for the World Economic Forum recently (Eid and Paua 2003). Field research for this paper included interviews with various investment firm managers in the Middle East and North Africa

region. What I heard was an ardent desire to promote private equity, coupled with frustration that the institutional structures necessary to mobilize finance and talent (not the *lack* of finance, not the *lack* of talent, per se) were missing. The task is one of creating the right institutional complementarities. The need for these complementarities was reinforced by findings of the FDI paper on the fairly weak stocks and flows to Arab countries. I explain this next.

The Importance of Promoting Entrepreneurship in the Middle East and North Africa

By far the strongest and most incontrovertibly substantiated conclusion from economic research on the Middle East and North Africa is the urgent need to stimulate job-creating growth in a region with the fastest growing population in the world. The region's population quadrupled since 1950 and is expected to double from today's 280 million, in the next 50 years. Unemployment rates for the non-oil producing economies of the Middle East and North Africa average 20 percent, among the highest in the world. Unemployment for those under 25 is over 40 percent, with serious economic and social exclusion and brain drain implications. Over the next 10 years, with population growth rates estimated to hover around 1.9 percent, the region needs to create 47 million new jobs to keep pace with new entrants to the labor market. An estimated 6.5 million additional jobs would be needed to reduce the regional unemployment rate by half. This means that the current employed workforce would need to expand by approximately 60 percent over the next decade—an accomplishment not achieved by the East Asian economies during the height of their employment growth periods. With average GDP growth of 3.1 percent over the past 10 years, and projections for the next 10 years not exceeding 3.3 percent, the problem of job creation in the Middle East and North Africa is indeed staggering. Labor force growth averaged 3.4 percent in the 1980s and 3.6 percent in the 1990s, with projected rates declining slightly, at 3.5 percent per year, for the period 2001–10 (World Bank 2003). For the period 1990–9 the gap between *observed* GDP growth and GDP growth that would have been consistent with labor force growth averaged 2.4 percent.⁷ The challenge today is to bring about growth rates that can ease off pressure on labor markets.

There is wide consensus that the way out of the Middle East and North Africa's unemployment trap is through higher private sector investment and growth, and that these have not materialized despite widespread macroeconomic and structural policy reforms throughout much of the region during the 1990s. Today a second generation of reforms is necessary, especially ones aimed at creating employment for first-time job seekers—those most affected by the region's rising unemployment (Keller and Nabli 2002; Gardner 2003). Among this group are the potential entrepreneurs of the region. These fresh graduates tend to be anxious to prove themselves and start making a living, they are willing to take risks and innovate, and they can afford to fail. The task for society is to maximize their chances by equipping them with skills their

markets need, and linking them with capital when their ideas have promise. This task entails creating the right institutional complementarities. I show in the fifth and sixth sections of the paper how our experience so far indicates that the task is feasible and can yield results beneficial for regions similar to the Middle East and North Africa.

A look at the FDI picture for the Middle East and North Africa region confirms the need for creating the right complementarities for higher and better economic impact from private sector financial flows. FDI is high on the list of variables that can improve job-creating growth prospects because it is considered a desirable means of ushering in capital and know-how that can lead to higher levels of productivity. However, the region's record in this area is not encouraging, as evidenced by the sparseness and composition of FDI in Arab countries (Eid and Paua 2003). FDI flows to the Middle East and North Africa for the period 1992–2000 averaged 0.6 percent of global flows, the lowest regional share in the world, against a 3 percent share of global GDP. For the same period, Latin America received 14 percent of FDI flows against a 4 percent share of GDP, and Asia 15 percent against a 25 percent share of GDP (Eid and Paua 2003; UNCTAD 2003). On average, during 1991–2000, FDI flows for the Middle East contributed marginally (1.5 percent) to gross fixed capital formation; they have been episodic because they are mostly connected with “lumpy” public sector hydrocarbon investments or one-time privatization programs that, in many countries of the region, have stalled for years. For North Africa, the figure is higher at 5.2 percent, largely because of progress with privatization and better diversification. This means that for all of the Middle East and North Africa, FDI contributed to 2.4 percent of gross fixed capital formation, while for Asia and Latin America the figures were 3 percent and 14 percent respectively for the same period (UNCTAD 2003).⁸ Nor do we have clear evidence of technological spillovers from FDI in the Arab world (Sadik and Bolbol 2001).

On the other hand, the fact that intra-Arab FDI flows have increased over time to constitute more than 50 percent of inflows to the region in 2000 could bode well for the promotion of investment in the Middle East and North Africa if Arab inflows continue to rise while non-Arab inflows remain as constant (and low) as they have been. More importantly, this increase is a stark reminder that the region is more capable of absorbing its own risks than foreigners can afford.⁹ In addition, global trends are such that over 95 percent of world FDI transactions take the form of mergers and acquisitions, not greenfield investments (McCann 2001). This, combined with increased interest from Arab investors in Arab investment opportunities for the time being, implies that the region countries could attract higher levels of investments if they accelerate the creation of dynamic competitive firms, attractive for mergers and acquisitions. Here again, supporting entrepreneurs is key to creating attractive opportunities for both FDI and (public as well as privately held) portfolio investments, such as private equity funds.

The question is how to promote the creation of competitive entrepreneurial firms, and the answer is: just the way it is done elsewhere—by actively encouraging the creation of new ideas, refining their business side, and linking them with finance when they constitute attractive investments. Because this value-driven (“smart”) finance

minimizes the host of agency problems discussed earlier, it has higher impact, for example, than the traditional “technical assistance” programs for small businesses that stop at an arms-length relationship with the entrepreneur.

Current monetary and financial sector trends in the Middle East and North Africa point to a clear window of opportunity for financing entrepreneurship. Partly because of the rise in oil prices and partly because of varying estimates in the tens of billions of dollars of repatriated capital since 9/11, ratios of M2/GDP in the region averaged 84.08 percent in 2003Q4 (the fourth quarter of 2003), up from 67.60 percent in 2000Q4.¹⁰ When we isolate growth rates in M2 alone for the period 2001Q4–2003Q4, we get a 21.28 percent change in the Middle East and North Africa compared with a –1.40 percent change in the G-7 countries (16.2 times the change in average M2 in the G-7 countries).

Where has the increase in M2 gone in the Middle East and North Africa? During 2001Q4–2003Q4, the growth of claims on the private sector as a proportion of M2 for the region averaged a mere 6.71 percent (0.68 percent for the Gulf Cooperation Council [GCC] and 3.41 percent for the Middle East and North Africa excluding the GCC). The growth rate of claims on the public sector as a proportion of M2 was negative, averaging –1.89 percent for the region (1.89 percent for the GCC and –4.27 percent for the Middle East and North Africa excluding the GCC). In contrast, other sectors posted significant growth. During this period, the private equity sector in the region went from 400 million in total assets under management in 2000 to 1 billion today (a 250 percent growth rate), and it is estimated that the sector will grow to about 2.5 billion in the next three years (Eid, industry interviews, January–March 2004). The public equity sector also reflected this increase in the general availability of capital for investment with “bubble-like” rates of return in the range of 14 to 17 percent on GCC stock markets over the period 2002–4. These trends are corroborated by changes in savings rates for the region. Estimates of national savings show a net increase over a two-year period of world recession in most countries in the Middle East and North Africa—a region where savings rates are among the lowest in the world, and tend to be slow to increase.¹¹ National savings rates for the GCC states between 2000 and 2002 increased by 2.65 percent, while they averaged a 0.50 percent increase for the Middle East and North African region. Higher levels of savings, in addition to international factors, led to a gradual lowering of interest rates throughout the region over the period 2000–4. I turn next to the global evidence on the performance of the private equity sector.

Global Evidence on Private Equity and Entrepreneurship

Despite the slowdown on world financial markets, interest and expertise around the private equity sector remain as alive as ever because the approach has proven value added both in terms of turnover and macroeconomic impact. Net employment creation and a host of other economic performance figures related to the private equity sector

from many parts of the world, for periods before and after the speculative bubble, remain impressively higher than figures for nonprivate equity-financed companies.

For example, between 1991 and 1995, net employment in European venture capital-backed companies increased on average by 15 percent yearly, while the 500 most profitable non-venture capital-backed European companies created on average 2 percent more jobs each year for the same period. They also experienced exceptional sales revenue growth of 35 percent, twice as fast as the 500 most profitable companies (Coopers & Lybrand 1995, 1997).¹² In the United States, employment by venture capital-backed companies increased by 25 percent on average every year for the period 1989–93, while employment by non-venture capital-backed Fortune 500 companies (the 500 U.S. companies with the highest turnover) dropped by a yearly average of 3 percent for the same time period. Also over the same period, venture-backed companies in the United States reported compound average sales growth of 41 percent versus 2 percent for Fortune 500 companies, while compounded GDP growth for this period was 5 percent (Coopers & Lybrand 1995).

Similar statistics are reported for the fairly different economy of Australia. For the period 1993–6, venture capital-backed companies increased their employment by 20 percent, while employment by the top 100 Australian companies increased by 2 percent. While sales growth for the former averaged 42 percent, it averaged 6 percent for the latter. The figures for increases in profits for the same period were 59 percent and 7 percent respectively (Coopers & Lybrand 1997). Related, less perfectly comparable statistics are emerging from economies in Eastern Europe (Central Asia OECD-UNIDO 1999; Karsai 2000; Wyznikiewicz, Pinto, and Grabowski 1993).¹³

Private Equity Evidence from the Middle East and North Africa

In the Middle East and North Africa, efforts to formally promote entrepreneurship, especially through private equity investments, are new. All indications, however, are that the path is promising, indeed fertile. Initial evidence indicates that the economic impact of such investments in terms of net job creation can be impressive, as shown in the table below from the portfolio of Tunisia's first private equity fund, Tuninvest (table 1). The labor market in Tunisia grew by a net average of 3 percent per year over the period 1989–97 (and by an average of 3.7 percent for the region) (Keller and Nabli 2002).¹⁴ For the period 1995–2002 firms in the Tuninvest portfolio yielded a net job growth rate averaging 17 percent per year.¹⁵ The figures from Tuninvest are especially impressive given that a majority of the firms in the portfolio were not start-ups at dates of entry—newly created firms tend to report high growth rates because they are based on small initial numbers, creating a statistical illusion.

Initial data from similar firms in Morocco, Algeria, and Egypt confirm that these results are attainable by other firms, in other parts of the region. Interviews and survey work carried out for this paper indicate a strong desire to move in the same direction of establishing funds and searching for ideas in the Levant and the Gulf, with Lebanon, Jordan, Dubai, and Kuwait in the lead.¹⁶ Managers of finance firms

in these countries have systematically responded by saying that promoting the private equity sector is “very important”—an opinion shared by managers whose firms are not exclusively focused on private equity (Eid, Industry Interviews and survey work, July–August 2002, January–February 2003). What they need, to move forward, is a series of “inputs,” such as well-articulated business ideas and legislation that “understands” and reinforces what they are trying to do. These are the institutional complementarities necessary for agent actions to be mutually enhancing, and for economic systems to move toward new points of equilibrium.

Given the urgent employment creation challenge in the Middle East and North Africa, if a broader base of equally compelling evidence can be confirmed, one might think of new microeconomic or sectoral adjustment programs along these lines that rapidly facilitate the creation both of more institutions that channel funds (of different levels of sophistication) and of others that mobilize the creation and vetting of business ideas. Today we have only a handful of such institutions, and virtually none of them is reinforced by the right complementarities. People and firms in this sector are therefore swimming against the current (Eid, Industry Interviews, 2002–3). Even if existing firms do not fail, their relative impact remains extremely low given the region’s challenges. I conducted a fact-finding survey to get a sense of how the private equity market perceives the situation, which I discuss next section.

Zeroing-In on Private Equity Financed Entrepreneurship: Creating the Right Complementarities

A survey was sent to the population of 15 private equity firms in the Middle East and North Africa, the first research of its kind for the region. Ten firms responded in time to be included in this research. Firms were asked to rank a series of obstacles (table 2) and priority outcomes (tables 3 and 4) related to the private equity sector in the economy (ies) where they are doing business. Survey results to date confirm initial anecdotal evidence collected through interviews, and point to some clear commonalities of vision between firms surveyed and the priorities for further research and policy work to promote job-creating entrepreneurship in the Middle East and North Africa. Not surprisingly, in response to the question on obstacles facing the private equity sector (table 2), none of the firms ranked “lack of funds” as an obstacle among the top four. Moreover, six of the ten firms cite “lack of business and entrepreneurial skills/ideas” as the number 1 obstacle facing the private equity sector. Seven out of ten firms point to “inadequate regulation/legal infrastructure” as impediments ranked between 1 and 4. If the obstacle “inadequate minority investor protection” is added to this count, then eight out of the ten firms would have pointed to legal/institutional factors as being among the top four facing the private equity sector in the Middle East and North Africa. The aggregate scores in the Total column confirm this concern with institutions: “the absence of an exit market” and “inadequate regulation/legal infrastructure” are scored highest, with a total of 20 and 19 points respectively. It is interesting to note that the first of these two parameters yields the lowest stan-

TABLE 1.
Job Creation and Turnover Figures from Tuninvest Private Equity Fund, Tunisia

| Company invested in | Date of entry | Number of employees | | | Turnover (in '000 of nominal Tunisian Dinars) | | | | |
|----------------------|---------------|---------------------|---------|-------------|---|-------------------|----------------|--------------------|---------------------|
| | | At entry | Present | Progression | At entry (nominal) | Present (nominal) | Present (real) | Progression (real) | Progression percent |
| AMI | 1995 | 93 | 120 | 27 | 3,034 | 5,323 | 3,783 | 749 | 19.8 |
| AMI COMMERCIALE | 1997 | 5 | 15 | 10 | 1,300 | 2,835 | 2221 | 921 | 41.5 |
| BATAM | 1997 | 370 | 650 | 280 | 59,954 | 94,855 | 74,321 | 14,367 | 19.3 |
| COGITEL | 1998 | 96 | 100 | 4 | 9,605 | 12,561 | 10,334 | 729 | 7.1 |
| EXIS (Holding SNMVT) | 1999 | — | — | — | 46,093 | 68,242 | 58,950 | 12,857 | 21.8 |
| FUCHI-KA | 1999 | 25 | 30 | 5 | 406 | 510 | 441 | 35 | 7.8 |
| GALION | 2000 | 70 | 70 | 0 | 4,611 | 4,491 | 4,073 | -538 | -13.2 |
| HYDROSOL FONDATIONS | 1997 | 50 | 50 | 0 | 1,035 | 2,166 | 1,697 | 662 | 39 |
| IGL INDUSTRIE SARL | 1999 | 37 | 70 | 33 | 2,390 | 8,892 | 7,681 | 5,291 | 68.9 |
| INTERCHEM | 1996 | 15 | 50 | 35 | 1,083 | 5,439 | 4,059 | 2,976 | 73.3 |
| MEDIS | 1996 | 3 | 110 | 107 | 0 | 3,597 | 2,684 | 2,684 | 100 |
| NOUVELAIR | 2001 | 500 | 400 | -100 | 115,371 | 143,225 | 136,405 | 21,034 | 15.4 |
| SANI CUISINES | 2001 | 60 | 60 | 0 | 5,426 | 7,687 | 7,321 | 1,895 | 25.9 |
| SIL | 1996 | 286 | 300 | 14 | 3,260 | 3,427 | 2,557 | -703 | -27.5 |
| SOMATRAL | 1998 | 130 | 190 | 60 | 3,835 | 5,063 | 4,165 | 330 | 7.9 |
| SOPAT | 1995 | 200 | 700 | 500 | 6,405 | 26,012 | 18,486 | 12,081 | 65.4 |
| SOTUPA | 1998 | 250 | 500 | 250 | 23,000 | 47,000 | 38,667 | 15,667 | 40.5 |
| SOVIA | 1997 | 30 | 180 | 150 | 0 | 12,681 | 9,935 | 9,936 | 100 |
| SPG | 2000 | 47 | 80 | 33 | 4,570 | 7,624 | 6,915 | 2,345 | 33.9 |
| STI (ACCOR) | 2001 | 600 | 850 | 250 | 5,454 | 32,462 | 30,916 | 25,462 | 82.4 |

| | | | | | | | | | |
|--------------------|------|-------|-------------------|-------|---------|---------|-------------------|---------|--------|
| STMP | 1996 | 30 | 40 | 10 | 1,992 | 1,269 | 947 | -1,045 | -110.4 |
| TECNO CATERING | 1999 | 28 | 120 | 92 | 567 | 310 | 268 | -299 | -111.7 |
| TUNISAVIA | 1995 | 100 | 100 | 0 | 5,235 | 6,669 | 4,740 | -495 | -10.5 |
| TUNISIA SEAWAYS | 2001 | 1 | 20 | 19 | 0 | 2,503 | 2,384 | 2,384 | 100 |
| TUNISIE FACTORING | 1998 | 12 | 30 | 18 | 845 | 4,768 | 3,923 | 3,078 | 78.5 |
| TUNISIE VALEURS | 1998 | 36 | 45 | 9 | 2,213 | 3,072 | 2,527 | 314 | 12.4 |
| VISUAL INDUSTRIE | 1998 | 40 | 40 | 0 | 2,975 | 2,328 | 1,915 | -1,060 | -55.3 |
| VITALAIT | 2000 | 96 | 200 | 104 | 10,738 | 26,376 | 23,924 | 13,186 | 55.1 |
| Total | | 3,210 | 5,120 | 1,910 | 321,397 | 541,387 | 466,241 | 144,844 | |
| <i>Progression</i> | | | <i>60 percent</i> | | | | <i>31 percent</i> | | |

Source: Tuninvest Finance Group, Tunisia, June 2002.

TABLE 2.
What do you think are the principal obstacles facing the private equity (PE) sector in the economy (ies) where you work?

| Obstacle | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Total | Average | Standard deviation |
|---|---|---|---|---|---|---|---|---|---|----|-------|---------|--------------------|
| Lack of entrepreneurial skills and ideas | | 1 | 4 | | 4 | | | | | 4 | 13 | 3.3 | 1.5 |
| Lack of business/management skills in general | 1 | | 1 | | | 4 | 4 | 4 | 2 | | 16 | 2.7 | 1.5 |
| Lack of funds | | | | | | | | | | | | | |
| Inadequate regulation/legal infrastructure | 4 | | | 4 | 1 | 3 | | 2 | 4 | 1 | 19 | 2.7 | 5.9 |
| The absence of an exit market | | 3 | 2 | 3 | 3 | 2 | 3 | 3 | 1 | | 20 | 2.5 | 0.8 |
| Inadequate minority investor protection | 2 | 2 | | 2 | | 1 | | | 3 | 3 | 13 | 2.2 | 0.8 |
| The family-focused nature of business | 3 | 4 | 3 | 1 | 2 | | 2 | | | 2 | 17 | 2.4 | 1.0 |
| Lack of early stage funding | | | | | | | 1 | | | | | 1.0 | 0.0 |
| Culture not accepting PE industry and/or method of investment | | | | | | | | 1 | | | | 1.0 | 0.0 |

Note: A score of 4 denotes highest significance, 3 second highest significance, and so on, on a scale of 1 to 4.

Source: Author's research.

standard deviation (0.8), denoting a high level of convergence on or opinions on exit markets throughout the region. On the other hand, “inadequate legislation/legal infrastructure” gets the highest standard deviation (5.9), implying some divergence of opinions, because some countries in the region are ahead of others in upgrading their legislation. Close seconds in terms of total scores are “the family-focused nature of business” and “lack of business/management skills in general,” which receive total scores of 17 and 16 respectively. Average scores are useful for a relative comparison of rankings across firms. In table 2, “lack of entrepreneurial skills and ideas” receives the highest average ranking of 3.3 and a standard deviation of 1.5, implying a high level of consensus among the respondents of the significance of this, along with knowledge transfer, in improving investment opportunities in the Middle East and North Africa.

When asked about the most significant economic outcomes of private equity transactions in the market(s) where their firms operate, managers also converged in their answers (table 3). Notable among the clusters of factors ranked between 1 and 3 in order of priority were “the attraction of foreign investment” (total score of 30 points, with an average score of 3.8), “the attraction/mobilization of local investment” (a total of 25 points, with an average score of 4.2) and “making long-term sources of finance available” (25 points total, with an average score of 3.6). These results support the conclusions from previous work (Eid et al. 2003) about the importance of leveraging entrepreneurial finance to attract higher levels of FDI to the the Middle East and North Africa region. The fact that “attraction of FDI” has a standard deviation of 8.8 while “attraction/mobilization of local investment” has a standard deviation of 1.2 is further evidence that the region is believed by local and regional actors to contain the finance necessary for investment, and that the task at hand is to mobilize this finance.

TABLE 3.
Most significant economic outcomes of PE transactions in the economy (ies) where the respondent firm works.

| Outcome | Total score | Average score | Standard deviation |
|---|-------------|---------------|--------------------|
| Job creation | 12 | 2.0 | 1.1 |
| Financial sector legislative and regulatory development | 13 | 2.6 | 4.5 |
| Financial sector deepening | 12 | 2.0 | 1.1 |
| Attraction of foreign investment | 30 | 3.8 | 8.8 |
| Attraction/mobilization of local investment | 25 | 4.2 | 1.2 |
| Making long-term sources of finance available | 25 | 3.6 | 0.8 |
| Economic growth | 15 | 3.0 | 1.4 |
| Improvement of governance | 5 | 2.5 | 0.7 |

Source: Author's research.

On a scale of 1 to 5, eight of the ten firms replied that “institutionalizing and formalizing entrepreneurship” was among the top four reasons why it is important to develop a vigorous private equity sector in the region (table 4). In response to this same question, six out of 10 firms ranked “contribution to the creation of a new category of entrepreneurs with more modern business skills and market experience” among the top five reasons. In aggregate, the expectation of “economic growth” potential of the private equity sector in the the Middle East and North Africa region was scored highest (23 points, with an average score of 3.3). This is in line with evidence on the performance of the private equity sector in other parts of the world, but not in line with perceptions of the impact of the sector to date in the Middle East and North Africa, captured in table 3, where “economic growth” received a total of 15 points. A possible explanation is that private equity firms believe there is a strong economic growth potential in private equity, but do not feel that they are functioning at this potential, for the various reasons they select in this survey. “Institutionalizing and formalizing entrepreneurship” received a total of 20 points, and “contribution to the creation of a new category of entrepreneurs” received 18 points. The next two issues—“financial sector development” and “help for family members to evolve beyond founders”—tied for a score of 15. For this table, standard deviations are all low in value and small in range, denoting a relatively wide consensus on the reasons why developing a private equity sector is perceived to be important.

When asked about priority areas of intervention for the improvement of the private equity sector (table 5), firms converged in their responses. They were virtually unanimous (nine out of ten) in pointing to “legislative reforms” as among the top five priority areas of intervention for the improvement of the private equity sector (a total score of 69, with an average of 6.9). In the raw data, out of nine choices, all firms ranked “higher deal flow” and/or “higher quality deal flow” in the top four. The latter issue

TABLE 4.
Why do you think it is important to develop a vigorous PE market?

| Outcome | Total score | Average score | Standard deviation |
|--|-------------|---------------|--------------------|
| Contribution to the creation of a new category of entrepreneurs with more modern business skills and market experience | 18 | 3.0 | 1.4 |
| Financial sector development | 15 | 3.8 | 1.0 |
| Job creation | 14 | 3.5 | 1.3 |
| Economic growth | 23 | 3.3 | 1.9 |
| Attraction of portfolio investment | 9 | 3.0 | 1.0 |
| Institutionalizing and formalizing entrepreneurship | 20 | 2.9 | 0.9 |
| Improvement of private sector governance | 13 | 2.2 | 0.8 |
| Attraction of strategic investors | 11 | 2.8 | 2.1 |
| Help for family business to evolve beyond founders | 15 | 3.0 | 1.9 |

Source: Author's research.

TABLE 5.
Priority areas of intervention for the improvement of the PE sector

| Area of intervention | Total score | Average score | Standard deviation |
|---|-------------|---------------|--------------------|
| Legislative reforms | 69 | 6.9 | 2.2 |
| Better marketing/awareness raising | 52 | 5.8 | 2.4 |
| Different sources of funds | 22 | 3.1 | 2.5 |
| Government subsidies/incentive programs | 31 | 3.9 | 2.9 |
| Higher deal flow | 44 | 4.9 | 2.7 |
| Higher-quality deal flow | 64 | 7.1 | 1.4 |
| Developing an entrepreneurial culture | 54 | 6.0 | 2.0 |
| Linking PE to economic development strategies | 49 | 6.1 | 2.5 |
| More specialized skills in the marketplace | 41 | 4.6 | 2.3 |

Source: Author's research.

received the second highest aggregate score of 64 (with the highest average score of 7.1, and the lowest standard deviation of 1.4). Seven out of ten firms pointed to “developing an entrepreneurial culture” as a priority in the top five (with a total score of 54 and average score of 6.0). Finally, firms ranked “better marketing/awareness raising” for the private equity sector as an issue of fourth aggregate order of importance, with a total score of 52, confirming the importance of this type of research and policy work.

These survey results offer a first glimpse at the high end of the Middle East and North Africa’s entrepreneurial finance landscape.¹⁷ As it appears to date, tackling national level noncomplementarities is a clear priority, and most notable among these is financial legislation that is not adapted to supporting entrepreneurship (tables 2, 4, and 5). For example, in Jordan, the law does not distinguish between a private equity fund that is publicly listed and one that is privately held.¹⁸ Nor does the law make this distinction in Lebanon, where, in addition, sparse financial legislation currently places a five-year cap on the life of a fund and allows for board (shareholder) changes within this period.¹⁹ In both of these countries, two types of complementarities are only beginning to appear: the first is a budding awareness among universities of the importance of promoting entrepreneurship through education and auxiliary activities. The second is a growing awareness of the importance of promoting the private equity sector in both the public *and* private sectors—for example, within the banking sector, which at times views the private equity industry as a competitor. Six out of ten firms pointed to “better marketing/awareness raising” as a priority area (among the top five) for the development of the private equity sector (table 5).

Other complementarities are absent in several countries where the funds and political will (including public budgets) are available to promote entrepreneurship and educational systems, but are not yet sufficiently adapted to the cultivation of entrepreneurial talent. Tunisia is a good example, and similar features exist in other economies of the region—such as Algeria and Syria—which experienced protracted periods of state-led

growth. Similarly, institutional infrastructure, such as financial legislation, appears to be less adapted in countries with a traditionally vibrant entrepreneurial economy, as in Lebanon, and to have adapted more quickly in countries with fewer educational and/or skill complementarities, as, for example, in Kuwait, Tunisia, and the United Arab Emirates. These observations are based on table 2 and interview data.

Regional noncomplementarities are also important. The relatively higher availability of funds in the Gulf, coupled with the relatively greater preparedness to capitalize on entrepreneurial talent in the Levant, implies that regional funds and programs are promising, and partly explains why a first generation of private equity funds—limited to national markets—did not succeed. The creation of these regional complementarities is different from the discussion of regional economic integration, and is much easier to implement because it is just about pooling resources and reducing risks. It might well be the only form of integration with chances of success in the region for the time being.

This discussion is by no means meant to suggest that promoting private equity is a panacea, especially given the risks of venture finance and given the idiosyncrasies and specificities that have resulted in failures in the private equity market in many parts of the world (Mashima 1996; Commission des Communautés Européennes 1998; IFC 1998; Karsai 2000; Business Wire 2001; *Cape Business News* 2001; Mayer 2001; Klapper, Sarria-Allende, and Sulla 2002). Among these idiosyncrasies have been serious faults in institutional design leading to suboptimal contractual arrangements, misaligned incentives, and inefficient results, often the result of the absence of complementarities. But problems of institutional design are now well studied, and they are complemented with numerous empirical studies about where things went well and where they did not, especially in Latin America and Eastern Europe—regions similar in key ways to the Middle East and North Africa. Notable among the conclusions useful for the region is that where the private equity market failed to take root, the lack of a stock market was by no means the most important impediment, but the lack of entrepreneurial talent and appropriate contractual arrangements were (Schmidt 1999). While it is important to learn from the successes and failures of others, the Middle East and North Africa is certainly not short on the three ingredients necessary for the private equity industry to have good chances of succeeding: finance, expertise and talent, and entrepreneurial energy.

Finance

Survey work carried out for this paper indicated clearly that Middle East and North African economies might temporarily benefit from a blessing in disguise as Arab capital is retained in the region, partly because of the consequences of 9/11 and partly because of the slump on international financial markets. In addition, preliminary interviews suggest that many affluent Arabs are willing to channel finance through instruments such as private equity funds if they are convinced that the funds are professionally managed and transparently governed. There is also evidence that they prefer such placements to investments that they have to identify individually

and monitor directly, as with foreign direct investment (Eid, Industry Interviews, July–August 2002; January–February 2003).

Expertise and Talent

Our experience in organizing a business plan competition in Lebanon has shown amply clearly that there is no dearth of talent either in the neighboring economies (we had participants from Jordan and Syria, and very strong interest from Morocco, Tunisia, Algeria, Egypt, Libya, Mauritania, and Palestine) or among members of the “Diaspora,” who were all too willing to mentor young entrepreneurs and serve on the selection jury of the competition. The appetite and enthusiasm of CEOs and entrepreneurs was such that many would fly in from abroad for events related to the business plan competition (Spark). Nor did we have trouble recruiting private sector entrepreneurs to offer, *pro bono*, workshops in business plan writing and “pitching.” The idea of taking the competition regional was reinforced by this interest from highly successful entrepreneurs throughout the Middle East and North Africa as well as in Europe and North America.

Entrepreneurial Energy

Finally, the large number of first-time job seekers in the Middle East and North Africa implies, by definition, that many of these are potential entrepreneurs, especially the highly educated among them. For this group, reforms related to the private equity sector are necessary; and for the remainder, related programs will be discussed in the next section.

Entrepreneurial Finance for Economic Development: What Does It Mean and What Would It Take?

Because promoting the private equity sector is not a panacea, based on our experience in Lebanon—which some consider something of an outlier in terms of its “entrepreneurial capital”—supporting entrepreneurial finance at all levels of the job ladder is important. But this is precisely why the case of Lebanon might be instructive in building an entrepreneurial economy. In Lebanon, it is estimated that a nonnegligible proportion of jobs in the labor market is directly or indirectly created and/or supported by nongovernmental organizations that promote different entrepreneurial initiatives. The range of educational institutions and NGOs offering entrepreneurial education in Lebanon today constitute part of a continuum of complementarities that could be the subject of policy design. But support for such organizations, even in Lebanon, remains insufficient, and careful evaluation of their economic impact should be a priority.

Job-creating entrepreneurial initiative can exist at all levels of the economy—ranging from water collection and jam production by village micro enterprises to mechanics shops and wedding dress rental boutiques in both rural and urban areas.²⁰ Its participants also range from elementary school kids who learn how to price and sell the toys

they no longer want²¹ and high school kids who learn how to balance checkbooks and write rudimentary business plans to sell services such as tutoring²² to college kids who sell advertising on the Internet (two examples of Spark business plan submissions from the American University of Beirut). Insofar as all of this creates economic value, the question then becomes how to promote at least the most organized and productive forms of it, and what complementarities are necessary to do so. The rest of this discussion is of a normative nature, intended to illustrate ideas about how things could be done if we seek to create policies that promote entrepreneurship.

The task is one of creating complementarities at all levels of the job ladder. At each level, the basic set of complementarities are legal (especially financial legislation and regulation) and “educational” in a broad sense, including private sector governance skills. For example, NGOs whose mandate includes job creation in a significant way should be easy to register; should not face difficulties receiving donations; should benefit from special tax exemptions; should be evaluated carefully for their impact (and therefore should be subject to stringent governance, accounting, and transparency requirements—a central feature to achieve complementarities); and, finally, their accomplishments should be widely advertised and publicly rewarded. These sets of complementarities can move a system to new points of equilibrium, but they are not currently present in much of the Middle East and North Africa, at least not in a consistent and systematic manner.

Each economy has its specificities. In economies such as Algeria, Egypt, and Morocco, with large numbers of low-skilled rural populations, micro finance complementarities are a priority. In economies like Jordan, Lebanon, and Tunisia (in addition to urban areas in Egypt, Morocco, and other parts of the region, such as most of the Gulf states), these micro finance complementarities are not as important as ones related to the high value-added end of the labor market, where the brain drain problem is most pressing.

The creation of complementarities would not be complete without efforts to encourage innovation through education in different forms and at various levels of society. This includes programs that encourage entrepreneurship in a broad sense: how to create economic value (especially jobs) from innovative ideas in all sectors. A whole range of topics can be taught that is related to innovation, entrepreneurial finance and economics, small businesses and the like at all educational levels, including executive education levels. As a university professor from the region, I can say that we do not do enough of this. Complementary educational programs can range from teaching how to write a rudimentary business plan for “small” finance projects of US\$5,000–10,000, to encouraging participation in high-tech business plan competitions that are networked with venture capital.

Programs that encourage the creation of start-ups around the world today are common to universities as different from each other as MIT in the United States and Earth University in Costa Rica (whose sole mission is agricultural/environmental). Universities can act as clearinghouses of information in developing regions, a role that might be undervalued at present because it is taken for granted. An important factor in the development of the agricultural sector in the U.S. Midwest was a series of Agricultural

Extension Offices created at the Land Grant Colleges throughout the country in the mid-1880s. These centers essentially turned a group of “sod busters” into a sophisticated and mechanized agricultural sector. A modern equivalent of this program in a developing region such as the Middle East and North Africa could be just as important in bringing together business and academia to promote job-creating entrepreneurship. In the Middle East and North Africa today, the world of learning and the world of business interact little. Our experience with the business plan competition in Lebanon has given us an excellent sampling of the synergies that ensue when the two worlds meet.

Conclusions

This paper has not tried to argue for the pursuit of unbridled capitalism. It has, on the other hand, tried to show that when a developing region’s priorities lie in generating employment, promoting entrepreneurship is important. The paper presents compelling evidence from the Middle East and North Africa and from other parts of the world to show that the private equity path has promise for emerging economies. It surveys private equity actors in the region to show that the institutional complementarities that theoretical economics has found important are also empirically central to moving the sector forward in the Middle East and North Africa. The paper concludes by extending the notion of complementarities to all levels of the job ladder, and illustrating through a normative discussion how entrepreneurship could be promoted in various parts of the economy.

The normative task at hand for the Middle East and North Africa region is twofold. First, the region must create institutional infrastructure appropriate for the development of entrepreneurship, especially financial legislation. Second, the region must promote the creation of parallel educational programs adapted to the cultivation of entrepreneurial skills at all levels of society, including through the nongovernmental sector. Interestingly, there is no evidence that lack of finance is a major hurdle in the Arab world today. Rather, it is the lack of channels that link finance with promising entrepreneurs. The task for research is to study the design and impact of such channels, the subject of my next few papers. This paper does not ignore the importance of larger macroeconomic and governance reforms, but proposes ideas that can be addressed and evaluated at a sectoral level—ideas whose efficacy is best optimized if all other reforms are carried out. But we have to begin somewhere.

Notes

1. *Smart finance* is a phrase increasingly used in business circles to denote investment that comes with a significant equity stake and governance control, and, as a result, has fairly specific, hands-on knowledge of the business being invested in. I extend the term to *smart institutions* to convey a sense of appropriateness and detailed technical sophistication.

The term *smart finance* is sometimes also used to refer to finance channeled in the form of remittances to families in the home economy from family members making a living

in another. Because this money is often used for investments that typically benefit from business savvy and experience gained by the people who earn it, it tends to create successful income-generating businesses for families back home, and is therefore referred to as “smart money” to denote that it does not simply go toward consumption.

2. To illustrate the notion of complementarity, take two types of assets, a1 and a2 (located in firm 1 and firm 2 respectively). These assets are strictly complementary either if access to a1 alone has no effect on the manager of firm 1’s marginal return from investment (that is, if he needs a2 as well), or if access to a2 alone has no effect on the manager of firm 2’s marginal return from investment (that is, he needs a1 as well). Assets a1 and a2 are independent if access to a2 will not increase the manager of firm 1’s marginal return from investment if he already has access to a1, and if access to a1 will not increase the manager of firm 2’s marginal return from investment if he already has access to a2.
3. *Deal flow* is a phrase used to denote the availability of a stream of business ideas, typically in the form of business plans that constitute potential investments for providers of finance.
4. The vast majority of private equity firm managers in the Middle East and North Africa today have U.S. experience and/or training.
5. MIT organizes an annual Global Start-Up Workshop (GSW) that brings together tens of university students, professors, and private sector entrepreneurs from over 30 different countries every year to share experiences and exchange know-how on organizing business plan competitions. The GSW is hosted by a different business school in a different continent of the world each year, and has become a reference among universities active in entrepreneurship. The Lebanon Entrepreneurship Competition (Spark) was inspired by the GSW.
6. In its first year, Spark managed to attract two U.S.-patented ideas submitted jointly by students and private sector professionals, one of which (“Quickwash”) won the first prize and attracted the level of investor interest that might turn it into a “success story.” Interest in creating similar competitions was overwhelming, ranging from Morocco and Mauritania to Saudi Arabia and Jordan.
7. These data are based on figures for Algeria, Jordan, Kuwait, Morocco, Oman, Saudi Arabia, and Syria (Keller and Nabli 2002).
8. Figures for the Middle East include those of Bahrain, Cyprus, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Palestine, Qatar, Saudi Arabia, Syria, Turkey, the United Arab Emirates, and Yemen. Figures for North Africa include Algeria, Egypt, Libya, Morocco, Sudan, and Tunisia. Figures for Asia include Afghanistan, Armenia, Azerbaijan, Bangladesh, Bhutan, Brunei Darussalam, Cambodia, China, Macao (China), Democratic People’s Republic of Korea, Georgia, Honk Kong (China), India, Indonesia, Israel, Japan, Kazakhstan, the Kyrgyz Republic, the Lao People’s Democratic Republic, Malaysia, Maldives, Mongolia, Myanmar, Nepal, Pakistan, Philippines, the Republic of Korea, Singapore, Sri Lanka, Taiwan (China), Tajikistan, Thailand, Turkmenistan, Uzbekistan, and Vietnam.
9. The question about levels of FDI flows to the Middle East and North Africa then becomes almost rhetorical for as long as the reigning security conditions exist. It is clear why capital from outside the region, *ceteris paribus*, goes to other regions, and why countries such as Lebanon should not expect much FDI from outside the region when Lebanon’s neighbors are net exporters of FDI and understand the regional risks better than potential investors from Europe, for example.
10. The Middle East and North African countries for which data were available for this analysis are Bahrain, Egypt, Jordan, Iran, Kuwait, Morocco, Oman, Saudi Arabia, Syria, Tunisia, the United Arab Emirates, and Yemen. The data for all figures in this section come from the International Financial Statistics of the IMF and the World Development Indicators of the World Bank.

11. National savings rates are estimated in the following way: national savings rate = (GNI – household consumption – government spending) / GNI.
12. A methodological point not clarified by industry reports is in order. First, when comparing employment growth and other performance figures of venture firms with those of non-venture financed firms it is accurate to consider random samples of venture-backed companies as representative of the stock of venture firms in an economy because the distinction between venture and nonventure firms is clear. Firms that start out by receiving venture capital but are already “exited” when a survey is conducted are not included, and not considered part of the population (or stock). This is the answer to the question of when a firm ceases to be considered a venture firm as it matures, and whether it continues to constitute part of the stock for survey purposes. Second, when surveys are conducted, performance figures for both venture-backed and non venture-backed firms are necessarily net of firms that die over time, because surveys are only sent to operating firms. However, this does not imply that performance figures are perfectly comparable because venture-backed and non venture-backed firms tend to have differential death rates.
13. There is some evidence that, although some countries have higher growth than would be expected from their level of entrepreneurship activity, there are no countries that have a high level of entrepreneurial activity and low growth (Global Entrepreneurship Monitor Executive Report 1999, 2000, 2001).
14. The regional average is calculated based on figures for Algeria, Iran, Morocco, Yemen, Jordan, Egypt, Tunisia, Bahrain, Kuwait, and Oman.
15. This figure is calculated as (1,910/3,210) / 3.5 (average firm duration in Tuninvest portfolio) and expressed as a percentage. This portfolio contains no sample selection bias—that is, the list above does not exclude failed firms. It excludes four firms already exited by Tuninvest, at an average IRR 14 percent and employment creation figures in line with the averages above. The four firms were Afrique Travaux, STHS, Cedria, and the Palm Azur Hotel (Tuninvest Finance Group, Tunisia).
16. The variation between these countries is useful for research.
17. By definition, the regional scope of the survey implies that results are not perfectly comparable across countries, because they derive from settings with differential institutional/policy environments and economic priorities. As a result, drawing conclusions about country-level reforms is not the objective. However these data do serve to confirm initial evidence about noncomplementarities as revealed through industry interviews. More precise results are being sought in the next stage of this research, which involves deeper country-level analysis and a different regional survey.
18. These distinctions are important when it comes to determining the governance of funds, the financial commitments they require, the returns that can be expected from them—and therefore the types of investments they can make—and other important factors, such as how and how quickly investors are allowed to “exit,” or get their money (and returns) back from the funds.
19. Preliminary interviews with Middle East and North African legislators indicate that they are, by and large, cognizant of the need for such reforms, but the issues just do not seem to have been brought to their attention in an organized way, mostly because of their novelty and because of the lack of appropriate lobbying efforts, a role played elsewhere by such actors as private equity associations. Morocco has formed the only such body in the region.
20. For example, the Entrepreneurial Development Foundation in Lebanon offers training modules in basic business and accounting skills to adults with a high school education but not necessarily a university degree, and encourages them to submit business plans by the end of their training workshop. It lends to some of the participants, with a ceiling of US\$10,000. The businesses proposed range from Internet cafes to babysitting services and wedding

dress rental shops, and includes proposals to expand existing farms with additional cows and proposals to set up jam-producing and bee-growing businesses in rural areas.

21. A child entertainment center called *Rainbow Island* in Lebanon organizes a fair with this purpose every year.
22. Junior Achievement (JA) Lebanon, over a period of two years, has now taught 2,600 high school students a course in how to balance check books, prepare a business CV, and so on. The course is called “Personal Economics” and is offered by university students and young professionals who volunteer to teach for JA. The course has reached 10 high schools, of which 4 are public schools.

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The Business Environment and Enterprise Performance in Transition: Evidence from a Large-Scale Survey

STEVEN FRIES, TATIANA LYSENKO, AND SAŠO POLANEC

This paper describes key findings of the 2002 Business Environment and Enterprise Performance Survey (BEEPS) and analyzes the link between the business environment and enterprise performance. Several conclusions arise from our analysis of the survey. First, consistency checks show that qualitative business environment measures from the BEEPS provide reasonably accurate measures of the quality of this environment. Second, obstacles in the business environment, including corruption, are associated significantly with the cost of doing business. Third, there is a significant correlation across countries between firms that engage in state capture and firms affected by this undue influence over the formulation of the laws and regulations. Fourth, our analysis of enterprise performance finds that the quality of the business environment in 1999 is positively associated with investment by firms in the period 1999 to 2001. It also shows that state capture significantly boosts the investment and growth of the firms that engage in it, but at the cost of adversely affecting the productivity growth of other enterprises.

This paper describes the 2002 Business Environment and Enterprise Performance Survey (BEEPS), provides an overview of its key findings, and analyzes the links between the business environment and enterprise performance. BEEPS is an initiative of the European Bank for Reconstruction and Development (EBRD) and the World Bank to investigate the extent to which government policies and practices facilitate or impede business activity and investment in the transition economies of Eastern Europe and Central Asia. The purpose of BEEPS is to alert both governments and businesses to the opportunities and obstacles in the region's business environment. The first round of the

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Annual World Bank Conference on Development Economics—Europe 2004

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survey was implemented in 1999. EBRD (2002, ch. 2) provides a preliminary summary of the 2002 survey results. EBRD (1999, chs. 2, 6, and 7), Hellman et al. (2000), World Bank (2000), and Carlin et al. (2001) summarize and analyze the 1999 round.

BEEPS is a large dataset in terms of sample size and the measures it provides of the business environment and enterprise performance. The 2002 BEEPS covered 6,153 firms in 26 countries of the region; the 1999 BEEPS covered 4,104 firms in 24 countries. The survey looks at many facets of the business environment, including economic governance provided by the state (such as business regulation and taxation, law and order, and the judiciary) as well as infrastructure and financial services. The survey also examines the issue of corruption—both administrative corruption that can be associated with arbitrary application of existing laws and regulations and “state capture” through which firms seek to influence unduly the content of laws and regulations to the benefit of narrow private interests rather than the broad public interest. The behavior and performance of firms also has many aspects. BEEPS focuses in particular on the growth of firms, including decisions to invest and to innovate and the growth of revenues and productivity.

Since the survey is large and complex, an overview of its key results must be carefully structured to avoid becoming immersed in detail. We therefore adopt a structure for this paper that summarizes many—but not all—of the survey results and at the same time highlights key relationships among various measures of the business environment and enterprise performance. The second section of the paper describes the 2002 BEEPS, including the survey instrument, sampling strategy, and firm characteristics of the survey respondents. The next section investigates the accuracy of the qualitative measures of the business environment derived from BEEPS, using tests for country perception biases and for consistency between qualitative and quantitative business environment measures. The fourth section associates obstacles in the business environment measured by quantitative indicators with the costs of doing business, such as corruption, which is a first step in building the link between the business environment and enterprise performance. The following section describes the qualitative measures of the business environment and their variation across countries and aspects of the environment and over time. The next section examines the issue of state capture, which is the exercise of undue influence by individuals, groups, or firms over the formulation of laws and regulations by the state. It identifies the incidence of state capture across countries and sectors, as well as the incidence of firms that are affected by state capture.

In the seventh section we seek to draw together the various descriptive aspects of the paper by examining the relationship among the business environment, state capture, and the performance and investment behavior of enterprises. In particular, we identify the marginal contributions to revenue growth from investment, increases in employment and skills, absorption of excess capacity, and gains in productivity. Factors that are associated with investment and growth in productivity and real revenues are then identified; among these are the quality of the business environment, state capture (both the private benefits and external costs), market structures, and firm ownership and origin, as well as economywide output growth.

Four important conclusions emerge from this description and analysis of the 2002 BEEPS. First, the qualitative measures of the business environment in BEEPS provide reasonably accurate measures of the quality of the business environment, given their consistency with corresponding statistical indicators and quantitative business environment measures from BEEPS. Second, the analysis of the quantitative measures of the business environment shows a strong association between business obstacles and added costs of businesses, such as corruption. Third, the qualitative measures show significant improvement in the region's business environment between 1999 and 2002. Fourth, the analysis of enterprise performance shows that the quality of the business environment in 1999 (based on qualitative measures) is significantly and positively associated with investment by firms in the period 1999 to 2001. It also shows that state capture significantly boosts the investment and real revenue growth rates of firms that engage in such activities, but reduces marginally the productivity growth of other firms. These findings indicate that a more favorable business environment supports growth of enterprises and suggest that state capture is a redistributive game over market opportunities and rents that creates a few significant "winners" at the expense of a larger number of incremental "losers."

The 2002 BEEPS

This section describes the survey instrument, sampling strategy, and firm characteristics of the survey respondents. Each aspect of the survey is considered in turn. But before turning to these details, it is useful to describe the general nature of survey data. The data produced by the survey are based on perceptions of managers and are therefore subjective. Because they are subjective, the survey data are inherently "noisy" in the sense of being subject to measurement errors. In addition, the specific measures produced by the survey are both qualitative (measurement using words) and quantitative (measurement using numbers), since each type has advantages and disadvantages. Qualitative measures of the business environment benefit from a uniform measurement scale in terms of the extent to which each of its broad dimensions creates an obstacle to the operation and growth of firms (ranging from minor to major obstacles). However, these measures lack precision. Quantitative measures of the business environment offer a greater degree of precision, but they often focus narrowly on aspects of the business environment that are amenable to quantitative measurement—typically proxy measures for transactions costs. It is therefore informative to consider both types of measures.

The Survey Instrument

The survey instrument, which can be found at www.ebrd.com/country/sector/econo/surveys/beeps.htm, consists of three broad components. The first section of the survey covers the basic characteristics of the firms that may be considered as exogenous to their operational activities and the decisions made by these firms over the past

three years. These characteristics include geographical location, economic sector of operation, ownership structure and origin of the firm, and characteristics of the general manager. A further component of the survey focuses on the performance and behavior of the firm over the past three years (1999 to 2001), placing particular emphasis on real revenue and productivity growth and on investment, innovation, and changes in the firm's organization. There are also questions relating to the skills and education of the firm's employees.

The core component of the survey focuses, however, on the business environment and its many aspects. They include access to infrastructure and financial services, business regulation and taxation, functioning of the judiciary, law and order, and corruption. Corruption includes not only "administrative" corruption aimed at influencing the enforcement of laws, regulations, and taxes, but also "state capture" aimed at manipulating laws, regulations, and taxes to the advantage of particular individuals, groups, or firms and to the detriment of the wider public interest.

Sample

The survey sample was designed to be broadly representative of the population of firms according to their economic significance, sector, size, and geographical location within each country. The sectoral composition of the total sample in each country, in terms of industry versus services, was determined by their relative contribution to GDP, after allowing for certain excluded sectors. Firms that operated in sectors subject to government price regulation and prudential supervisions—such as banking, electric power, rail transport, water, and waste water—were excluded from the sample. These sectors are excluded because the survey focuses significantly on interactions between the state and firms and those firms that are subject to regulation by the state are likely to interact differently than are unregulated firms.

Enterprises eligible for the 2002 BEEPS were, therefore, in the following sectors (the International Standard Industrial Classification (ISIC) codes for each sector are reported in the parentheses):

- In industry, they are mining and quarrying (ISIC Section C: 10 – 14), construction (ISIC Section F: 45), and manufacturing (ISIC Section D: 15 – 37).
- In services, the sectors are transportation, storage and communications (ISIC Section I: 60 – 64), wholesale and retail trade and repairs (ISIC Section G: 50 – 52), real estate and business services (ISIC Section K: 70 – 74), hotels and restaurants (ISIC Section H: 55) and other community, social and personal services (ISIC Section O: 92.1 – 92.4 and 93).

Within the industry and service sectors, the sample was designed to be as representative as possible of the population of firms, subject to various minimum quotas for the total sample in each country. This approach sought to achieve a representative cross-section of firms while ensuring sufficient weight in the tails of the distribution of firms for key control parameters, such as size of firm, geographical location, exports, and ownership. In addition, enterprises established after 1999 were excluded from

the sample because the survey questions on business performance covered the period 1999 to 2001.

The 2002 BEEPS was implemented in 26 of the 27 countries in which the EBRD operates. In Turkmenistan, however, there were no completed surveys because of concerns by the EBRD and World Bank about state interference in the implementation of the survey. Table 1 lists the countries together with their target and completed sample sizes. The completed samples in most countries are larger than the target samples because additional firms were surveyed in order to satisfy the sampling quotas for exporters and ownership.

TABLE 1.
Target and Completed Sample Sizes (number of interviews)

| Country | Target | Completed |
|------------------------|--------|-----------|
| Albania | 170 | 170 |
| Armenia | 170 | 171 |
| Azerbaijan | 170 | 170 |
| Belarus | 250 | 250 |
| Bosnia and Herzegovina | 170 | 182 |
| Bulgaria | 250 | 250 |
| Croatia | 170 | 187 |
| Czech Republic | 250 | 268 |
| Estonia | 170 | 170 |
| FYR Macedonia | 170 | 170 |
| Georgia | 170 | 174 |
| Hungary | 250 | 250 |
| Kazakhstan | 250 | 250 |
| Kyrgyz Republic | 170 | 173 |
| Latvia | 170 | 176 |
| Lithuania | 170 | 200 |
| Moldova | 170 | 174 |
| Poland | 445 | 500 |
| Romania | 250 | 255 |
| Russia | 445 | 506 |
| Serbia and Montenegro | 250 | 250 |
| Slovak Republic | 170 | 170 |
| Slovenia | 170 | 188 |
| Tajikistan | 170 | 176 |
| Ukraine | 445 | 463 |
| Uzbekistan | 250 | 260 |

Source: BEEPS 2002.

Excluding Turkmenistan, a total of 18,052 firms were contacted and 6,153 interviews were completed, yielding a survey completion rate of 37 percent. Respondents who either refused outright to participate or were unavailable to be interviewed accounted for 38 percent of all contacts. Establishments that were contacted but not eligible, because of the need to fulfill quotas for certain types of firms, accounted for the remainder of the contacts.

MEMRB (now Synovate), a retail tracking services company, was selected to implement the survey on behalf of the EBRD and the World Bank through an open competitive tender. MEMRB followed the ICC/ESOMAR International Code of Marketing and Social Research Practice, including those guidelines pertaining to the rights of respondents. These rights provide for the confidentiality and anonymity of the respondents. The respondents were not paid for answering the survey.

Firm Characteristics

Table 2 summarizes the firm characteristics of the whole sample; Fries, Lysenko, and Polanec (2003) provides a more detailed breakdown of the sample by country. The sectoral composition of the sample was 39 percent industry and 61 percent services, reflecting the relative contribution of these two sectors to the region's GDP. Within the industrial sector, 25 percent of the total sample was in manufacturing, 13 per-

TABLE 2.
Basic Firm Characteristics of the Sample

| Characteristic | Sample share (in percent) |
|----------------------------|---------------------------|
| Sector | |
| Industry | 38.7 |
| Services | 61.3 |
| Size (number of employees) | |
| Small (2 to 49) | 67.6 |
| Medium (50 to 249) | 18.5 |
| Large (250 to 9,999) | 13.9 |
| Ownership | |
| New private | 68.0 |
| Privatized | 17.7 |
| State owned | 14.3 |
| Foreign owned | 13.5 |
| Location | |
| Capital | 31.9 |
| Large cities (not capital) | 19.6 |
| Small cities | 23.4 |
| Rural areas | 25.1 |

Source: BEEPS 2002.

cent in construction and 1 percent in mining. Within the services sector, retail and wholesale trade accounted for 31 percent of the total sample, real estate and business services for 10 percent, transport storage and communication 8 percent, hotels and restaurants for 6 percent, and other services for 6 percent. The distribution of firms within the industry and service sectors reflected their relative contribution to the population of firms within the two sectors.

The composition of the sample with respect to firm size reflects the population of firms in the region. About two-thirds of the firms surveyed were small (2 to 49 employees), 19 percent were medium-sized (50 to 249 employees), and 14 percent were large (250 to 9,999 employees). Regarding geographical location with each country, 32 percent were in the capital city, 20 percent in large cities other than the capital, 23 percent were in small cities and 25 percent in rural areas.

The composition of the sample with respect to firm ownership varies along two main dimensions. The first is whether firms were majority owned by private investors or by the state. Among majority private-owned firms, a further distinction was drawn between those that had been privatized or spun-off from state-owned enterprise and those that were newly established as private enterprises. Of the firms in the sample, 68 percent were originally established as private firms with no state-owned antecedents, 18 percent were privatized, and 14 percent were state-owned. The second dimension was whether private firms were majority owned by domestic or foreign investors. Of the sample, 14 percent were majority owned by foreign investors.

The Business Environment and Its Measurement

Given the importance of institutional change to the post-communist transition, BEEPS asked firms to assess how the functioning of state institutions, physical infrastructure, and financial institutions affect their business operations. Seven broad areas are assessed. They are taxation, business regulation, corruption, crime, the judiciary, infrastructure, and finance. In a series of qualitative questions (evaluation using words), firms were asked to assess how problematic these factors were for the operation and growth of their business on a scale of one to four, where a score of one indicates a minor obstacle and a score of four a major obstacle. In addition to these qualitative assessments, BEEPS also asked respondents to indicate the quality of specific institutions using quantitative indicators (numerical evaluation).

A concern with any survey, however, is that any one respondent may rate a problem more or less critically than would an objective observer, assuming that a survey question corresponds to an objectively measurable concept. The potential for such biases is greater with qualitative questions, which allow respondents more flexibility and greater subjectivity when forming judgments. In general, individual perception biases contribute only to the standard error of estimates obtained from the survey responses. However, this assumes that perceptions biases are uncorrelated among groups of respondents. In cross-country surveys, such as BEEPS, there is always the concern that individual biases could be correlated among respondents in a particular country.

There are a number of factors that could create perception biases at the country level. For example, different cultural norms and degrees of political freedom across countries may influence the choice of specific ratings and the willingness of business people to criticize state institutions. Assessments could also be influenced by the prevailing sense of economic optimism or pessimism related to the country's stage in the business cycle. These factors could generate a systematic perception bias when the survey results are analyzed at the country level.

One way to check for such country perception biases across countries and over time is to compare statistically the qualitative measures to related objective measures. This is possible with respect to macroeconomic stability, since the 1999 and 2002 BEEPS asked firms the extent to which instability is an obstacle to the operation and growth of their firms. Consistency in the qualitative perceptions across countries and over time would require that firms operating in countries with high growth and low inflation perceive macroeconomic instability as being less of a business obstacle.

To assess this, the statistical relationship is estimated among the average inflation rate (in percent) over the five years before and including the year in which the survey was implemented, the five-year average real output growth rate (in percent), and the country-average qualitative measures of macroeconomic instability for the 1999 and 2002 surveys. The regression equation is $MI_t = \alpha + \beta \cdot Avg_Inf_{t-5,t} + \gamma \cdot Avg_Growth_{t-5,t} + \varepsilon_t$, where MI is macroeconomic instability as measured qualitatively by BEEPS,¹ $t = 1999$ and 2002 , $Avg_Inf_{t-5,t}$ denotes average inflation rate over the five-year period before and including the year when survey was conducted, and $Avg_Growth_{t-5,t}$ is the five-year average rate of real GDP growth. The estimated equation is $MI = 2.86 + 0.001 \cdot Avg_Inf_{t-5,t} - 0.04 \cdot Avg_Growth_{t-5,t}$. The estimated coefficient on the average growth rate and the constant term are statistically significant at the 5 percent level, but the estimated coefficient on the average inflation rate is not significant. The adjusted R-squared of the equation is 0.23. Serbia and Montenegro, Tajikistan, and Turkmenistan are omitted from the regression because BEEPS was not implemented in these countries in 1999 and in Turkmenistan in 2002.

From this estimated relationship, it is possible to identify whether qualitative measures of macroeconomic instability for a particular country and year (1999 or 2002) are significant outliers above or below the value predicted by the estimated statistical relationship by calculating a studentized residual for each observation. This test for whether an observation is an outlier is run by including in the above regression a single dummy variable for a country and year observation and examining whether the dummy variable is statistically significant.² Only the Kyrgyz Republic in 1999 and Azerbaijan in 2002 are statistically significant outliers to this estimated relationship, and the estimated size of the prediction errors for the two observations are 0.81 (overly negative) and -0.87 (overly positive), respectively.

In addition, BEEPS contains a number of questions that ask firms about quantitative measures of the business obstacles they faced. Examples of such measures are

the proportion of sales paid in bribes (bribe tax), the proportion of senior management working time spent dealing with public officials on regulatory matters (time tax), the proportion of sales reported to tax authorities, the amount of time needed on average to resolve an overdue payment, the amount of losses due to crime as a share of sales, and the number of working days lost because of interruption of infrastructure services. These measures can provide a useful crosscheck of the qualitative measures. For example, firms that pay a greater proportion of their sales in bribes are likely to perceive corruption as a greater business obstacle.

Table 3 reports the simple correlation coefficients between these quantitative measures and their qualitative counterparts from the 2002 survey. For example, the correlation coefficient between the bribe tax as a quantitative measure of corruption and the qualitative assessment of corruption as an obstacle to operations as subjective measure is 0.51, which is correctly signed and statistically significant at the 1 percent significance level. Correctly signed and statistically significant correlations are also found between the quantitative and qualitative measures of the quality of regulatory environment, finance, and infrastructure. Correlations among the other measures are correctly signed but statistically insignificant. This evidence from the 2002 survey, therefore, points to a significant degree of consistency between the quantitative and qualitative business environment measures. The 1999 survey did not contain a number of the quantitative measures, so such crosschecks are not possible for those results.

TABLE 3.
Correlation Coefficients between Quantitative and Qualitative Measures of the Business Environment in 2002

| Quantitative measure | Qualitative measure | Correlation coefficient (<i>p</i> -value) |
|--|---------------------|---|
| Bribe tax in percent of total sales | Corruption | 0.51 (0.01) |
| Time tax in percent of senior management working time | Regulation | 0.45 (0.02) |
| Proportion of total sales reported for tax purposes | Tax administration | -0.23 (0.25) |
| Average number of days to resolve overdue payments | Judiciary | 0.31 (0.12) |
| Losses due to theft in percent of total sales | Crime | -0.26 (0.19) |
| Average number of working days lost due to infrastructure faults | Infrastructure | 0.56 (0.00) |
| Index of time to obtain "hard" bank loan adjusted for maturity | Finance | -0.49 (0.01) |

Source: BEEPS 2002.

Note: Calculations of correlation coefficients between quantitative and qualitative measures are made using country averages of the respective measures. Country averages for the quantitative and qualitative measures are calculated as unweighted averages of firm responses from that country.

The Business Environment and the Cost of Doing Business

The term *business environment* suggests that the aspects of economic governance covered by the concept are linked to the performance of enterprises. This section examines the nature of these links by focusing on a few dimensions of the business environment—in particular, taxation, business regulation, infrastructure, and corruption. The quantitative measures of the business environment used in this analysis are correlated (in most cases significantly) with corresponding quantitative measures as discussed in the second section. Moreover, in this section, quantitative measures of the business environment are correlated with measures of added business costs such as corruption. These additional comparisons serve to show some of the key interrelationships among different aspects of the business environment—for example, between poorly functioning state institutions and administrative corruption. They also illustrate the costs associated with business obstacles and establish a link to enterprise performance.

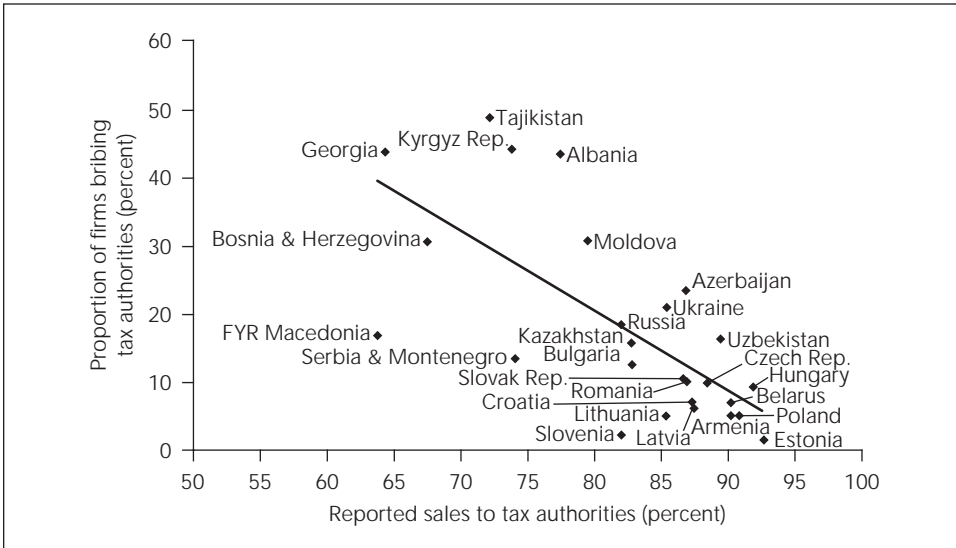
Taxation

One indication that tax rates and tax administration create a business obstacle is the extent to which firms avoid paying taxes. BEEPS asked the respondents to what extent firms like theirs underreported sales revenue for tax purposes, recognizing the difficulty that many firms face in complying with taxes. A high proportion of reported sales could indicate a low level of tax evasion and high degree of tax compliance. The survey also asked respondents to indicate how frequently firms like theirs paid bribes to deal with taxes and tax collection. A high perceived incidence of corruption associated with taxation is consistent with a high level of tax evasion.

Figure 1 shows the relationship between the proportion of sales reported for tax purposes on a country average basis and the proportion of firms in each country that pay bribes frequently or more to deal with taxes and tax collection for the 2002 survey.³ The strong negative correlation between reported sales and bribery of tax authorities (correlation coefficient of -0.70 , statistically significant at the 1 percent level) suggests that firms both underreport actual sales to tax authorities and bribe tax authorities. In other words, firms are able to reduce their tax burden by bribing tax authorities. Although tax evasion is not detrimental to the firms that reduce their tax burden net of any bribes paid, it is clearly detrimental to the government's tax base and to the firms that do comply with tax requirements. It can also undermine trust in the government and state institutions.

The countries facing the most severe problem of tax evasion are the former Yugoslav Republic of Macedonia, Georgia, Bosnia and Herzegovina, Tajikistan, the Kyrgyz Republic, and Serbia and Montenegro. In these countries, firms perceive that reported sales to the tax authorities are at most 75 percent of total sales. These countries also have relatively high proportions of firms frequently paying bribes to tax authorities, particularly Tajikistan, the Kyrgyz Republic, Georgia, and Bosnia

FIGURE 1.
Total Sales Reported to Tax Authorities and Proportion of Firms Perceived as Paying Bribes to Tax Authorities, by Country



Source: BEEPS 2002.

Note: Proportion of firms bribing tax authorities is calculated for each country as an unweighted share of those firms that bribed tax authorities at least frequently (answers four to six on a scale of one to six). Reported sales are calculated for each country as an unweighted average of the individual firms' responses.

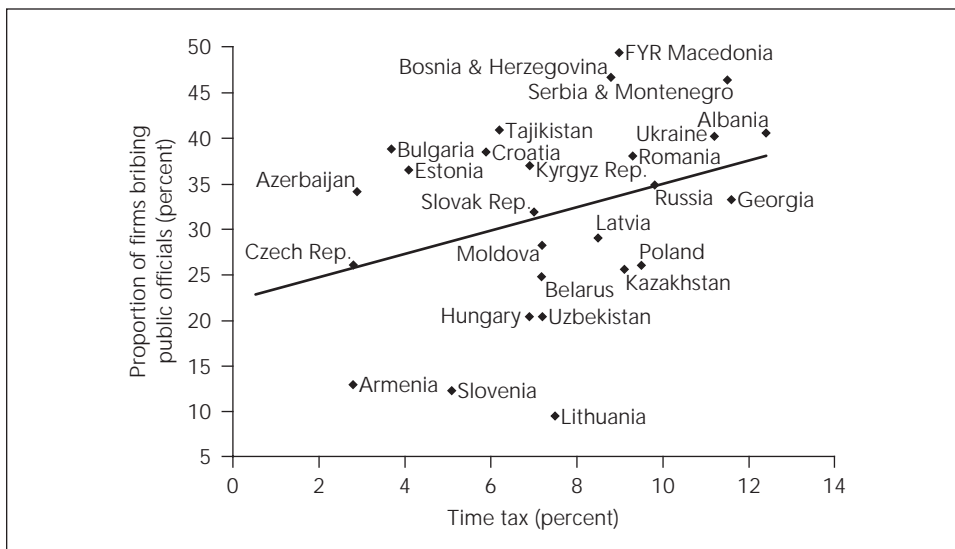
and Herzegovina. Countries with relatively strong tax discipline are Estonia, Slovenia, Lithuania, Armenia, and Poland. The proportion of firms in these countries that frequently pay bribes to tax authorities is relatively low.

Business Regulation

One indication of the extent of business regulation that firms undergo is the amount of working time that senior managers spend dealing with public officials regarding the application of laws and regulations. The greater the amount of time spent by managers—the “time tax”—the greater is the opportunity cost of complying with laws and regulations. BEEPS asked the respondents what proportion of their senior managements' time was spent dealing with public officials about the application and interpretation of laws and regulations. The survey also asked respondents to indicate how frequently firms like theirs paid bribes to deal with various aspects of business regulation, including business licenses and permits, health and safety inspections, fire and building inspections, and environmental inspections.

Figure 2 shows the relation between the time tax on a country average basis and the proportion of firms in each country that are perceived to pay bribes frequently or more to deal with various aspects of business regulation. The index includes four types of administrative corruption and bribery: (1) to obtain business licenses and

FIGURE 2.
Regulatory “Time Tax” and Proportion of Firms That Are Perceived to Pay Bribes to Public Officials, by Country



Source: BEEPS 2002.

Note: Proportion of firms bribing regulatory public officials is calculated for each country as an unweighted share of those firms that bribed customs authorities at least frequently (answers four to six on a scale of one to six) in at least one of the four dimensions (business licenses and permits, occupational safety, fire and building inspections and environment inspections). Time tax is calculated for each country as an unweighted average of individual firms' responses on the proportion of senior managements' working time spent dealing with public officials.

permits, (2) to deal with occupational health and safety inspections, (3) to deal with fire and building inspections, and (4) to deal with environmental inspections. The index has a value of one if it is perceived that firms pay bribes frequently or more in at least one of these dimensions, and a value of zero otherwise. Country averages of the firm index values are then calculated to compare it with the average time tax. The figure shows that the time tax is significantly correlated with the perceived frequency of administrative corruption in this area, with a correlation coefficient between the two of 0.37 (significant at the 6 percent level).

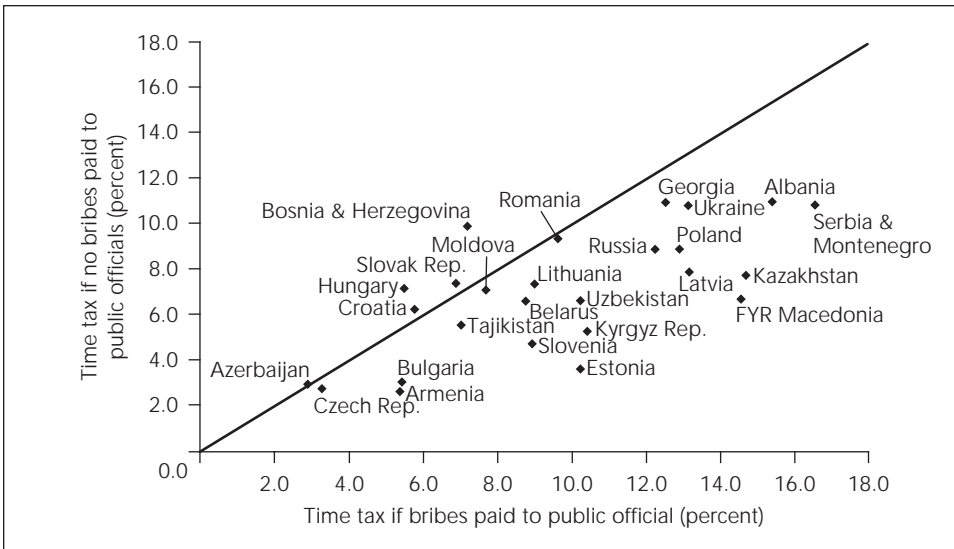
The countries with the highest time taxes are Albania, Georgia, Serbia and Montenegro, and Ukraine. In these countries, senior managers are reported to spend between 11 and 13 percent of their working time dealing with public officials. A relatively high proportion of firms in these countries—between 33 percent and 46 percent—also report paying bribes frequently to government officials. Those countries with the lowest time taxes are the Czech Republic, Armenia, and Azerbaijan, two of which also have relatively low proportions of firms paying bribes to government officials.

The significant correlation at the country average level between the regulatory time tax and the proportion of firms that bribe public officials, however, says little about the specific nature of corruption and its impact on businesses. There are at

least two possible explanations for the association between corruption and regulatory intervention, which focus on alternative roles of government in promoting or stifling private activity (see Shleifer and Vishny 1993; Fry and Shleifer 1997). In the first, corruption is part of an exchange between firms and bureaucrats in which a firm pays bribes in return for less intrusive regulation. In this view, corruption is organized within the state so that it promotes selected private sector activity. In the second, corruption is disorganized and associated with predatory regulatory practices. In this view, the government consists of a large number of independent bureaucrats pursuing their own interests, such as taking bribes, with no regard for the impact of their actions on private sector activity. This is sometimes referred to as the “grabbing hand” view of the state.

Figure 3 shows the country average time tax for those firms paying bribes related to business regulation to public officials and for those not paying such bribes. The 45-degree line shows the points of equality between the two average time taxes by country. In most countries, firms that pay bribes to such officials also incur a higher time tax than do those firms that do not pay bribes. This finding, therefore, lends some empirical support to the “grabbing hand” view of the state in transition economies, even though the evidence reported above on tax avoidance suggests that the role of the state is less detrimental to business activity. One explanation for the different findings on the effects of corruption in tax administration and in business

FIGURE 3.
Average Time Tax for Firms Paying Bribes to Public Officials and for Firms Not Paying Bribes, by Country



Source: BEEPS 2002.

Note: Time tax is calculated for each country as an unweighted average of individual firms’ responses on the proportion of senior managements’ working time spent dealing with public officials. The averages are calculated separately for those firms that bribe frequently or more to deal with public officials in areas of business regulation and those that do not.

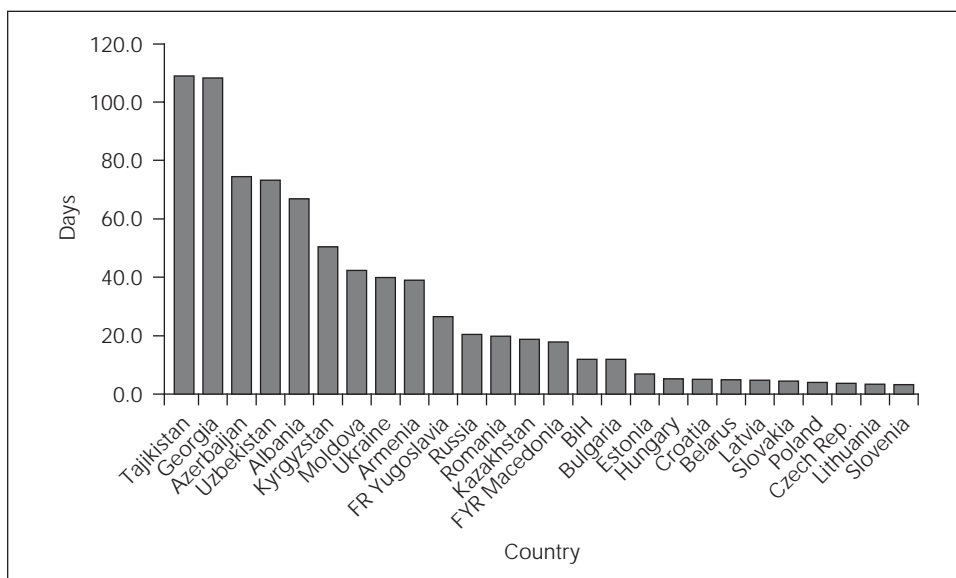
regulation is that the former is more centralized and coordinated than the latter, and that decentralized and uncoordinated business regulation results in “overgrazing of the commons” by public officials. The overgrazing problem is particularly significant in Serbia and Montenegro, Albania, Kazakhstan, and FYR Macedonia.

Infrastructure

As discussed in the second section of this paper above, the measure of the number of working days lost because of infrastructure failures is significantly correlated with the extent to which business perceive infrastructure as an obstacle to the operation and growth of their firms. Figure 4 shows the country averages for working days lost due to disruptions to the provision of electricity, telephone, and water services. The working days lost are particularly great in Central Asia and the Caucasus, as well as in Albania, Moldova, and Ukraine. For example, in Tajikistan and Georgia, about 40 percent of working days in a year are lost due to failures in infrastructure services. In Azerbaijan and Uzbekistan, the proportion of working days in the year lost is just over 25 percent.

Additional measures of the extent to which infrastructure services create business obstacles are the delays encountered in obtaining connections to electricity and tele-

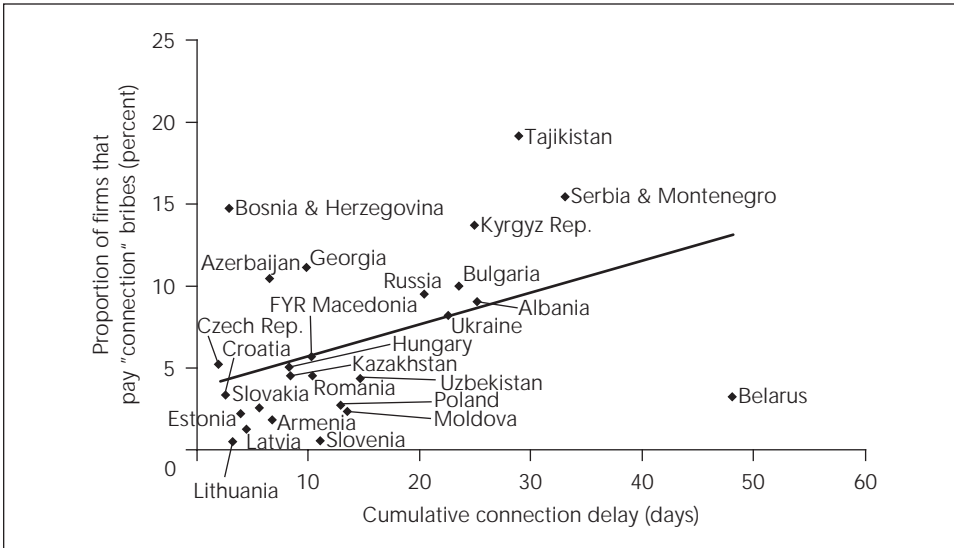
FIGURE 4
Total Number of Working Days Lost Due to Failures in Provision of Infrastructure Services, by Country



Source: BEEPS 2002.

Note: Total number of working days lost due to failures in provision of infrastructure firms is calculated for each country as an unweighted average of firm-level sums of days lost due to power outages or surges from the public grid, insufficient water supply, and unavailable mainline telephone service.

FIGURE 5.
Cumulative Connection Delay and Proportion of Firms That Are Perceived to Pay Infrastructure Connection Bribes, by Country



Source: BEEPS 2002.

Notes: Cumulative connection delay is calculated for each country as an unweighted average of sum of connection delay to fixed telephone line and electricity. Proportion of firms making infrastructure connection bribes is calculated for each country as an unweighted share of those firms that paid bribed to get connected to fixed telephone line or electricity at least frequently (answers four to six on a scale of one to six).

phone services, and the proportion of firms that are perceived to pay bribes frequent or more to obtain such connections. As figure 5 shows, the two measures are significantly correlated, with a correlation coefficient of 0.41 (statistically significant at the 5 percent level). Countries with the longest connection delays are Belarus, Serbia and Montenegro, Tajikistan, Albania, and the Kyrgyz Republic, where the average delay ranges from between 25 to almost 50 days. The countries with shortest delays are Czech Republic, Croatia, Bosnia and Herzegovina, and Lithuania, which average less than one week.

Corruption and Kickbacks

Preceding parts of this section show that obstacles in the business environment are often associated with corrupt practices in public administration and access to infrastructure services. Although in some cases paying bribes may reduce taxes or improve access to public services, this is not always the case, as shown by the analysis of business regulation. The costs associated with administrative corruption, arbitrary public administration, and rationing of infrastructure services are not necessarily confined to the firms that engage in these practices. Corrupt practices can create unfair competitive advantages for some firms (not necessarily the most productive) and can

undermine trust in the government and state institutions. One measure linked to the overall cost of corruption is the proportion of sales that are paid in the form of unofficial payments to public officials—the “bribe tax.”

Table 4 reports the proportion of firms responding to BEEPS in each country that report paying at least some bribes and the average proportion of sales that firms like theirs paid in bribes. The table also reports the average bribe tax paid by all firms, including those that paid no bribes. Countries in which more than half of firms reported paying at least some bribes include Albania, Azerbaijan, Bulgaria, FYR Macedonia, Georgia, Kazakhstan, the Kyrgyz Republic, Moldova, Romania, Russia, Serbia and Montenegro, the Slovak Republic, Tajikistan, and Ukraine. Among those firms in these countries that paid bribes, the average bribe tax rate centered on 5 percent, except in FYR Macedonia where it was significantly lower. Armenia, Croatia, and Slovenia appeared to have the lowest incidence of administrative corruption.

Table 4 also provides a similar analysis of the kickbacks paid to receive government contracts. It reports the proportion of firms responding to BEEPS in each country that report paying at least some kickbacks, and the average proportion of government contract values that these firms paid in kickbacks. The table also reports the average kickback tax paid by all firms, including those that made no such payments. Countries in which more than one-third of firms reported paying at least some kickbacks include Albania, Azerbaijan, Bosnia and Herzegovina, Bulgaria, Estonia, FYR Macedonia, Georgia, the Kyrgyz Republic, Serbia and Montenegro, the Slovak Republic, Tajikistan, and Ukraine. Among those firms in the countries that paid bribes, the average bribe tax rate ranged between 5 and 10 percent, except in Azerbaijan where it was significantly higher. Armenia, Croatia, Moldova, and Slovenia appeared to have the lowest incidence of corruption in government procurement.

Overview of the Region’s Business Environment: A Qualitative Assessment

The summary qualitative measures of the business environment reported in this section are on a uniform scale across dimensions and countries. As discussed in the second section of the paper, consistency checks on these qualitative measures reveal few significant country biases in these perceptions. There is also evidence that the qualitative measures are significantly correlated with related quantitative measures of the business environment in specific aspects, some of which were analyzed in detail in the previous section. The qualitative measures, therefore, provide a reasonably accurate overview of the prevailing business environment in transition economies.

A significant finding from the two rounds of BEEPS (1999 and 2002) is the overall improvement in the business environment of 0.56 (on an unweighted average basis across countries and dimensions), to 2.08 in 2002 from 2.64 in 1999 on the one-to-four scale. To make the comparison consistent over time, only those countries for which the survey data were available for both 1999 and 2002 surveys are used.

TABLE 4.
Bribes and Kickbacks Paid in 2002, by Country (in percent)

| Country | Share of firms paying bribe tax | Average bribe tax rate | Average bribe tax | Share of firms paying kickbacks | Average kickback tax rate | Average kickback tax |
|------------------------|---------------------------------|------------------------|-------------------|---------------------------------|---------------------------|----------------------|
| Albania | 77.1 | 4.6 | 3.3 | 68.8 | 9.6 | 6.0 |
| Armenia | 21.6 | 4.8 | 0.9 | 11.7 | 5.8 | 0.5 |
| Azerbaijan | 52.9 | 6.0 | 2.7 | 33.5 | 18.3 | 4.8 |
| Belarus | 44.8 | 3.4 | 1.5 | 24.4 | 4.9 | 1.1 |
| Bosnia and Herzegovina | 42.3 | 3.0 | 0.9 | 35.7 | 7.8 | 1.2 |
| Bulgaria | 51.2 | 4.2 | 1.9 | 37.2 | 8.5 | 2.5 |
| Croatia | 24.6 | 2.6 | 0.6 | 11.2 | 7.9 | 0.9 |
| Czech Republic | 36.6 | 2.9 | 0.9 | 31.7 | 5.2 | 1.2 |
| Estonia | 42.9 | 1.1 | 0.3 | 37.6 | 5.0 | 1.0 |
| FYR Macedonia | 61.2 | 1.5 | 0.8 | 44.1 | 10.2 | 2.9 |
| Georgia | 65.5 | 4.4 | 2.7 | 41.4 | 8.6 | 3.0 |
| Hungary | 47.6 | 2.4 | 1.0 | 27.6 | 7.6 | 2.1 |
| Kazakhstan | 58.4 | 3.8 | 2.1 | 28.4 | 6.2 | 1.5 |
| Kyrgyz Republic | 64.7 | 6.3 | 3.7 | 36.4 | 7.6 | 2.4 |
| Latvia | 46.6 | 2.3 | 0.9 | 23.3 | 7.3 | 1.3 |
| Lithuania | 44.0 | 1.9 | 0.7 | 30.5 | 4.7 | 1.0 |
| Moldova | 53.4 | 4.0 | 2.1 | 14.9 | 5.0 | 0.7 |
| Poland | 40.6 | 3.4 | 1.2 | 30.2 | 10.4 | 2.2 |
| Romania | 54.9 | 4.7 | 2.6 | 26.3 | 8.1 | 2.1 |
| Russia | 64.6 | 2.3 | 1.4 | 29.8 | 5.9 | 1.5 |
| Serbia and Montenegro | 54.0 | 4.0 | 1.5 | 52.0 | 6.8 | 1.8 |
| Slovak Republic | 62.9 | 2.6 | 1.4 | 56.5 | 6.8 | 3.3 |
| Slovenia | 14.9 | 5.4 | 0.8 | 12.8 | 5.2 | 0.7 |
| Tajikistan | 65.3 | 4.0 | 2.6 | 37.5 | 5.0 | 1.8 |
| Ukraine | 52.1 | 4.4 | 2.2 | 38.2 | 8.4 | 2.1 |
| Uzbekistan | 48.1 | 3.2 | 1.5 | 22.7 | 5.3 | 1.1 |

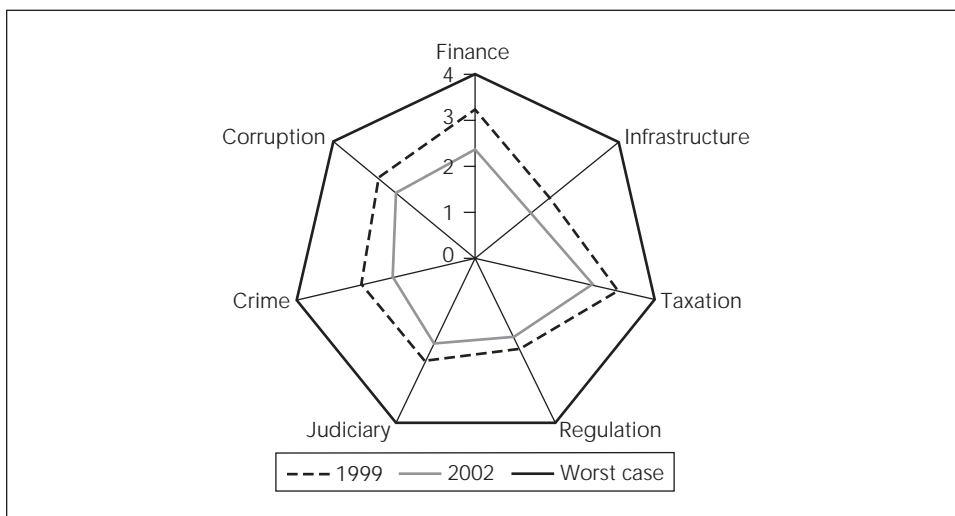
Source: BEEPS 2002.

Note: Share of firms in each country paying at least some bribes and kickbacks in percent of responding firms. Bribe and kickback tax rates are the proportions of sales and of government contracts, respectively, paid in bribes and kickbacks averaged for all firms that made such payments. Average bribe and kickback taxes are calculated as unweighted averages of all responses, whether or not bribes and kickbacks were paid.

Therefore, the comparison excludes Serbia and Montenegro, Tajikistan, and Turkmenistan for which, as noted earlier, no data are available from the 1999 survey and, in the case of Turkmenistan, for the 2002 survey as well.

Figure 6 shows the average qualitative measures of the business environment for both 1999 and 2002 for all countries included in both rounds of the survey (Fries, Lysenko, and Polanec [2003] report individual country measures). The change between 1999 and 2002 in the business environment perceptions in three of the seven dimensions exceeded the overall average change in the business environment. Finance, taxation, and crime each saw improvements between 1999 and 2002 of about 0.60 to 0.87 on the scale of one to four. Improvement in perceptions of infrastructure matched that of the overall business environment. However, perceptions of business regulation, the judiciary, and corruption improved by less than average, in the range of 0.31 to 0.48. Many of the persistent obstacles in the business environment therefore appear to arise from the fact that states remain too weak to rein in their own officials or to enforce their own regulations and laws. Notwithstanding

FIGURE 6.
Qualitative Measures of the Region's Business Environment by Dimension, 1999 and 2002



Source: BEEPS 2002.

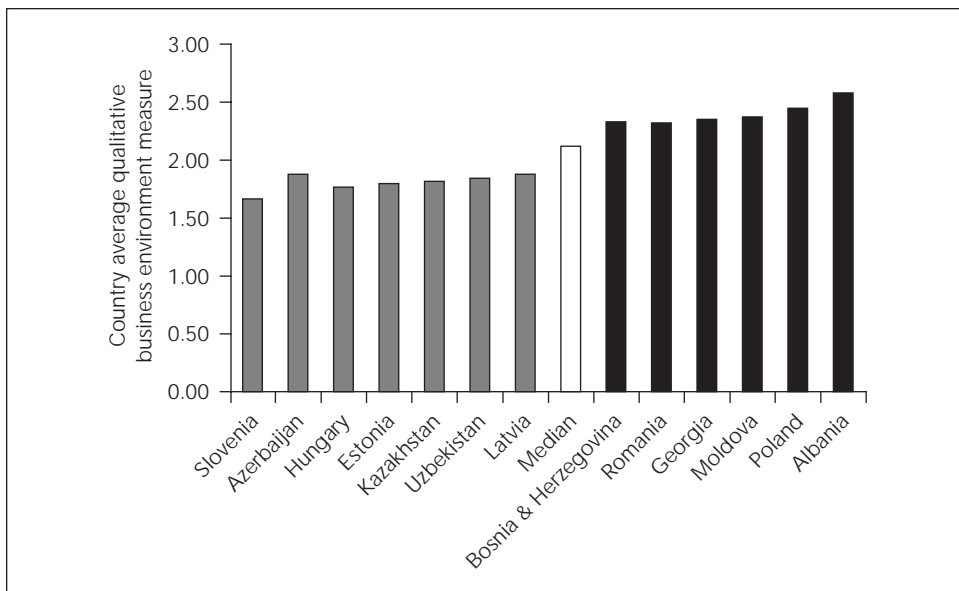
Note: The responses on specific questions aiming to assess particular dimensions of the business environment are aggregated into seven dimensions: finance, infrastructure, taxation, regulation, judiciary, crime, and corruption. The finance measure combines two aspects with equal weights: the interest rate and ease of access to long-term financing in both 1999 and 2002; infrastructure combines a general question on infrastructure in 1999 and two questions with equal weights in 2002, one on electricity supply and the other on telecommunications services; taxation combines two aspects with equal weights: tax rates and tax administration both in 1999 and 2002; regulation combines three aspects with equal weights: customs and trade regulations, business licensing and labour regulations both in 1999 and 2002; judiciary and corruption are assessed in one question each in both the 1999 and 2002 survey; crime combines two aspects: street and organised crime in both 1999 and 2002. The calculation procedure is as follows: (1) calculate averages for each dimension, e.g., finance, for each firm, (2) calculate unweighted averages of seven dimensions for each country, and (3) calculate averages for each dimension across countries.

these improvements, the most problematic dimensions of the business environment remain taxation, access to finance, and corruption.

The countries that saw above average improvements in business environment perceptions were located largely in the Commonwealth of Independent States (CIS) and southeastern Europe. In descending order of the amount of improvement, the countries were: the Kyrgyz Republic (1.18), Kazakhstan (0.99), Azerbaijan (0.97), Lithuania (0.79), Russia (0.76), Latvia (0.69), Croatia (0.66), Moldova (0.64), Czech Republic (0.61), Uzbekistan (0.59), FYR Macedonia (0.57), Romania (0.57), and Ukraine (0.55). All other countries showed less-than-average improvement in their business environment perceptions or, in the case of Poland, no significant change in perceptions of the business environment.

Figure 7 shows the overall average perception of the business environment in 2002 for those countries with averages that differ significantly from those of the two median countries (the Kyrgyz Republic and Serbia and Montenegro). The countries with business environments more favorable than the median in 2002 are Slovenia (1.67), Azerbaijan (1.74), Hungary (1.77), Estonia (1.79), Kazakhstan (1.82), Uzbekistan (1.84), and Latvia (1.88). Among these countries, it is important to note that perceptions in Azerbaijan may be positively biased given the outlier test

FIGURE 7.
Selected Country Average Qualitative Business Environment Measures in 2002



Source: BEEPS 2002.

Note: Proportion of firms bribing tax authorities is calculated for each country as an unweighted share of those firms that bribed tax authorities at least frequently (answers four to six on a scale of one to six). The calculation procedure is as follows: (1) calculate averages for each dimension, e.g., finance, for each firm, and (2) calculate unweighted averages of seven dimensions for each country. The median value is a simple average of the measures for the Kyrgyz Republic and Serbia and Montenegro.

performed in the third section. The countries with business environments less favorable than the median in 2002 are Albania (2.58), Poland (2.45), Moldova (2.37), Bosnia and Herzegovina (2.33), and Romania (2.33). For all other countries, the perceptions of the business environment do not differ significantly from those of the two median countries.

Influence and State Capture

While *administrative corruption* relates to (among other things) arbitrary enforcement of business taxation and regulation and rationing of access to infrastructure services, *state capture* refers to actions of individuals, groups, or firms to influence the formulation of laws, regulations, decrees, and other government policies (that is, the basic rules of the economic “game”) to their own advantage through illicit or nontransparent means. So-called captors can be individuals, groups, or firms from the private sector that seek market opportunities and rents, low-cost assets, or other advantages from the state. This potential problem with the functioning of a market economy has been a concern at least since Smith (1776, reprinted in 1976) who expressed the view in the *Wealth of Nations* that merchants and manufacturers had a propensity to pursue their interests through political influence on the commercial system. More recently, Stigler (1971) raised concern about undue influence on modern regulatory institutions by commercial interests and the potential for “regulatory capture.” It should also be emphasized that public officials themselves can also capture the state if they abuse their authority to shape institutions to further their private interests at the expense of the broader public interest.

While the influence of private interests on state institutions is a normal and desirable aspect of political processes, state capture goes beyond legitimate forms of influence. These legitimate forms include transparent lobbying through interest groups that are exposed to open debate and to pressures from countervailing interests such as consumers or competitors. State capture is a form of influence that is illicit and nontransparent and operates through preferential access of private individuals, groups, or firms to state officials. It can also occur through undisclosed or not widely understood business interests of public officials, their relatives, and their close associates. The potential for both forms of state capture is greater where there are constraints on the contestability of political power.

BEEPS seeks to identify state capture and its impact in two ways. One set of questions asks firms whether they sought to influence the content of laws and regulations affecting it and whether firms like theirs make unofficial payments or gifts for this purpose. Those firms that answered positively to both questions are identified as captor firms. Firms that are expending resources to influence laws and regulations can be expected to benefit in some way from these expenditures, for example, by obtaining competitive advantages in the market place. A second BEEPS question asks whether firms have been directly affected by unofficial payments or gifts to various types of state officials, including parliamentarians and government officials.⁴

Firms that identify themselves as having experienced such effects of influence and are themselves engaged in capture may be expected to benefit from this practice. This is referred to as the private benefit from capture. Firms that identify themselves as having experienced such effects of undue influence and are not themselves engaged in state capture may be expected to incur costs from such practices, such as competitive disadvantages. This is referred to as the *external cost of state capture*. The extent of the private benefits and external costs associated with state capture are examined empirically in the next section.

Table 5 reports for the 2002 survey the proportion of firms in each country that are identified as captor firms and the external effect of state capture associated with influence payments to parliamentarians and government officials. It shows that the incidence of state capture and its perceived affects are significantly correlated (correlation coefficient of 0.68, which is statistically significant at the 5 percent level). In other words, those countries that have a higher proportion of firms that report having engaged in state capture also have a higher proportion of firms that report having been affected by this activity but not being engaged in it.

Enterprise Performance and the Business Environment

It is often asserted—but infrequently shown—that the quality of the business environment has a significant impact on the operation and growth of firms. The primary channels through which the business environment is thought to influence enterprise performance are the costs and constraints of doing business and the incentives for investment and innovation. In fact, cross-country empirical studies identify a positive association between long-run growth of GDP per capita and measures of institutional quality at the beginning of the period over which the growth rate is measured. Early examples of this literature are Knack and Keefer (1995) and Mauro (1995); recent contributions include Acemoglu and Thaicharoen (2003), Easterly and Levine (2003), and Rodrik, Subramanian, and Trebbi (2002).

This section examines the relationship between the business environment and investment and innovation at the firm level. This analysis involves two steps. The first is to estimate at the firm level the marginal contributions that the growth in inputs (capital, labor, and skills) makes to the real growth in revenues. This analysis also allows us to calculate at the firm level the contribution of total factor productivity growth to the real growth in revenues. The second is to identify those factors not directly under the control of individual firms that are correlated with investment, productivity gains, and real revenue growth at the firm level, such as the quality of the business environment, state capture, and real GDP growth, as well as market structures and ownership at the firm level.

The starting point for this analysis is the production functions of firms. A standard specification of the production is the Cobb-Douglas form:

$$Y_{it} = A_{it} \cdot K_{it}^{\alpha} L_{it}^{\beta} H_{it}^{1-\alpha-\beta} \epsilon_{it}, \quad (1)$$

TABLE 5.
Proportion of Captor Firms (Laws and Regulations) and the Effects Costs of Capture (Laws and Regulations), by Country (in percent)

| Country | Proportion of captor firms | Proportion of firms affected by capture |
|------------------------|----------------------------|---|
| Albania | 12.4 | 34.1 |
| Armenia | 3.5 | 9.2 |
| Azerbaijan | 1.2 | 23.2 |
| Belarus | 3.6 | 7.2 |
| Bosnia and Herzegovina | 7.8 | 35.9 |
| Bulgaria | 10.0 | 38.8 |
| Croatia | 11.2 | 18.2 |
| Czech Republic | 2.6 | 17.3 |
| Estonia | 6.5 | 13.6 |
| FYR Macedonia | 13.5 | 33.6 |
| Georgia | 12.1 | 31.0 |
| Hungary | 6.0 | 12.9 |
| Kazakhstan | 2.0 | 13.0 |
| Kyrgyz Republic | 8.1 | 27.3 |
| Latvia | 8.5 | 29.3 |
| Lithuania | 5.1 | 18.6 |
| Moldova | 8.6 | 28.8 |
| Poland | 3.6 | 15.5 |
| Romania | 4.7 | 21.4 |
| Russia | 4.8 | 11.8 |
| Serbia and Montenegro | 11.2 | 25.7 |
| Slovak Republic | 4.7 | 23.0 |
| Slovenia | 6.4 | 20.7 |
| Tajikistan | 7.5 | 35.3 |
| Ukraine | 4.8 | 16.3 |
| Uzbekistan | 2.3 | 27.2 |

Source: BEEPS 2002.

Note: Proportion of captor firms was calculated as interaction of two questions: (1) one that asks firms to report if they attempted to influence the government, and (2) a second that asks whether firms like theirs make any unofficial payments in attempt to influence the content of laws and regulations. Proportion of firms affected by capture is measured by a proportion of firms that perceive at least minor impact by unofficial payments to affect either parliamentarians or government officials and that are not themselves captor firms.

where Y_{it} denotes total output of the firm i in period i , A_{it} is a variable that measures total factor productivity or technology, K_{it} is the stock of physical capital, L_{it} is the level of employment of labor, and H_{it} is the stock of human capital or skills and α , β , and $(1 - \alpha - \beta)$ denote elasticities of output with respect to the factors of production. The multiplicative error term ε_{it} represents all disturbances such as omitted factors of production, efficiency differences among firms, functional form discrepancies, and measurement errors. Taking the logarithm and the first difference of (1) yields a dynamic specification of Cobb-Douglas production:

$$\Delta y_{it} = a_{it} + \alpha \cdot \Delta k_{it} + \beta \cdot \Delta l_{it} + (1 - \alpha - \beta) \cdot \Delta h_{it} + \Delta e_{it}, \quad (2)$$

where the terms are expressed as percentage changes of the variables in the corresponding levels equation.

The data used to estimate this relationship are from the BEEPS questions that ask firms to report the percentage changes in real terms (that is, after allowing for inflation) over the past three years of sales and fixed assets and the percentage changes in employment of full-time employees. BEEPS also identifies those firms that increased over the past three years their share of skilled workers, managers, and professionals, which serves as a proxy for increases in human capital.

These survey data enable the use of medium-term trends at the firm level in output, physical capital, human capital, and employment in the estimations. An advantage of using the data in the form of first differences is that they can reduce the disturbances in the estimated production functions that arise from omitted factors, functional misspecification, and measurement errors to the extent that these factors are relatively constant over time. If this assumption is valid, the error terms in the estimated production function largely reflect firm specific differences in productivity growth. The aim is to identify from the estimates of the production functions the marginal contributions of growth in capital, labor, and skills to real revenue growth, and to recover from the estimates of the production function firm-specific productivity trends.

One methodological issue in estimating production functions is the simultaneity bias that can arise when errors in the estimated production function are correlated with the decisions of firms regarding the amount of capital, labor, or skills they use or employ. The problem of simultaneity may be reduced by estimating the production in a different form rather than in levels if the estimation errors (essentially productivity surprises) are uncorrelated with the changes in capital, employment, and skills over the estimation period (see, for example, Griliches and Mairesse 1995). This can arise if there are costs to adjusting the capital stock, employment, and skills mix of firms. These unanticipated changes in productivity may of course affect subsequent decisions about the use of capital, labor, and skills. If they are correlated with current decisions, these variables must be instrumented in the regression. However, the survey data do not provide sufficiently powerful instruments.

The empirical specification of the production function allows for variation in its estimated parameters across sectors but not across countries; that is:

$$\Delta y_{ijt} = \sum_{j=1}^8 (a_j + \alpha_j \cdot \Delta k_{ijt} + \beta_j \cdot \Delta l_{ijt} + (1 - \alpha - \beta)_j \cdot \Delta h_{ijt}) + \Delta e_{ijt}, \quad (3)$$

where j denotes the sector. As discussed above, BEEPS asks firms to report real growth in sales and fixed assets, as well as growth in employment of permanent employees. Assuming that the share of material inputs in revenues is relatively constant, real growth in sales will correlate closely with that of value added. As a proxy for skills accumulation, BEEPS asks firms whether they have increased, decreased, or left unchanged the proportion of their workforce that are skilled workers or professionals. The estimated coefficient on this term reflects both the elasticity of output with respect to skills and the average change in the proportion of skilled workers. In addition, the survey provides information on changes in capacity utilization over the last three years with respect to both capital and labor.

Table 6 reports the estimated parameters of the production function by sector, which are the elasticities of the growth in capital, labor, skills, and capacity utilization to the real revenue (output) growth of firms. A surprising finding is the high marginal contribution to output growth made by the growth of fixed assets. The elas-

TABLE 6.
Estimates of Firms' Production Functions by Sectors

| Sector \ Variable | Constant | Capacity utilization | Fixed assets | Labor | Human capital |
|--------------------------------------|-----------------|----------------------|-----------------|----------------|----------------|
| Mining and quarrying | 6.70 (0.6) | 0.24 (1.0) | 0.53* (4.1) | 0.01 (0.2) | 1.60 (0.1) |
| Construction | -6.90 (-0.6) | 0.34* (6.0) | 0.51* (13.2) | 0.08* (2.7) | 13.9* (2.5) |
| Manufacturing | 3.50 (0.3) | 0.13* (3.7) | 0.50* (17.9) | 0.13* (5.5) | 10.6* (2.6) |
| Transport, storage and communication | -7.00 (-0.6) | 0.12 (1.5) | 0.75* (17.5) | 0.08 (1.9) | 17.4* (2.4) |
| Retail and wholesale trade | -1.80 (-0.2) | 0.15* (3.8) | 0.33* (13.3) | 0.03* (2.9) | 17.7* (5.0) |
| Real estate and business services | -4.80 (-0.4) | 0.11 (1.7) | 0.51* (8.5) | 0.28* (7.1) | 11.3 (1.7) |
| Hotels and restaurants | -6.00 (-0.5) | 0.34* (2.5) | 0.41* (5.0) | 0.05 (1.1) | 9.20 (1.1) |
| Other services | -3.90 (-0.3) | 0.32* (2.1) | 0.90* (16.1) | 0.03 (0.8) | 7.40 (0.9) |

Source: BEEPS 2002.

Note: $R^2_{adj} = 0.29$; $F(39, 5146) = 54$; number of firms = 5,186.

* denotes statistical significance at the 5 percent level.

ties range across sectors from 0.33 in the retail and wholesale sector to 0.75 in the sector that includes transport, storage, and communication services. In most industrialized countries, the estimated elasticity of production in industry with respect to capital is around 0.33, the lower bound of the estimates based on the BEEPS sample. Increases in capacity utilization also contribute significantly to real revenue growth. Taken together, growth in fixed assets and capacity utilization account for between one-half to three-quarters of real revenue growth in the seven sectors.

Another significant finding is that real revenue growth is only weakly related to employment growth in most sectors. This result may reflect labor hoarding, which is thought to be widespread in the region (see EBRD 2000, ch. 5). Consistent with this interpretation is the significant impact of changes in capacity utilization on growth. However, while changes in employment are not significant, an upgrading of firms' skills does make a significant marginal contribution to output growth. In this regard, it is important to note that the estimated coefficients on the skills terms capture both the estimated elasticity of production with respect to skills and the average increase in the proportion of skilled workers and professionals in each sector.

We now investigate what factors beyond the short-run control of individual firms are associated with investment and productivity growth at the firm level and with the real revenue growth. Productivity growth is measured as the residuals from the estimated dynamic production functions.⁵ The explanatory variables for the investment, productivity, and real revenue growth equations are derived from the theory of investment. They are proxies for the marginal return to capital (acceleration of growth in aggregate demand), the costs or risks to that return (business environment and state capture), the potential to earn market rents (market structures), and firm incentives and skills (ownership and origin of firms). Specifically, the explanatory variables for the investment, growth of productivity, and real revenue growth equations are (1) capacity utilization rate in 1999; (2) acceleration in real GDP growth at the country level, calculated as the ratio of output growth rate in 2001 and average growth between 1999 and 2001; (3) business environment at the country level in 1999, calculated as the unweighted average of the seven components of business environment; (4) the captor variable, which is a dummy variable that has a value of one if a firm attempted to influence the content of laws and if firms like theirs make unofficial payments in an attempt to influence the content of laws and regulations; (5) external costs associated with the capture variable, which is a dummy variable that has a value of one if a firm reported to have been affected by capture of the government or parliament; (6) price elasticities of demand, which are three dummy variables that have a value of one if the firm would anticipate a low, moderate, or high response in demand if it were to increase the price of its primary product price by 10 percent; the omitted variable is no demand response (monopolist); (7) dummy variables for state and new private ownership, the omitted ownership category is privatized firms; and (8) log of employment and its squared value as a measure of firm size.

Table 7 reports the estimated coefficients and significance levels for these variables. It shows the significant relationship, on a country-average basis, between the quality of the business environment in 1999 and the rate of investment in the period

TABLE 7.
Investment, Productivity, and Real Revenue Growth Equations

| Variable | Real growth in fixed assets | Trend growth of productivity | Real revenue growth |
|---|--------------------------------|---------------------------------|------------------------|
| Capacity utilization rate in 1999 | -0.15* (-3.06) | -0.09 (-1.75) | -0.39* (-6.95) |
| Acceleration of real GDP growth in 2001 v. 1999–2001 average | 0.88* (2.01) | 0.82 (1.80) | 1.42* (2.82) |
| Country business environment in 1999 | -10.03* (-2.58) | 2.56 (0.63) | 1.93 (0.43) |
| Captor firm (laws and regulations) | 10.58* (2.49) | 4.99 (1.13) | 12.77* (2.59) |
| External cost of capture (laws and regulations) | 2.29 (0.90) | -5.18 (-1.94) | -3.44 (-1.19) |
| Price elasticity of demand: low | 0.32 (0.11) | -3.37 (-1.10) | -0.91 (-0.27) |
| Price elasticity of demand: moderate | -6.10 (-1.84) | -4.83 (-1.40) | -10.03* (-2.65) |
| Price elasticity of demand: high | -5.20* (-1.77) | -9.78* (-3.19) | -14.27* (-4.28) |
| State ownership | -8.86* (-2.39) | -4.99 (-1.29) | -12.00* (-2.83) |
| New private ownership | 18.26* (6.30) | 2.64 (0.87) | 20.63* (6.23) |
| Foreign ownership | 7.94* (2.50) | 1.77 (0.54) | 5.98 (1.64) |
| Log of employment | 12.03* (5.24) | 3.60 (1.47) | 14.21* (5.45) |
| Log of employment squared | -0.88* (-2.39) | -0.11 (-0.37) | -0.93* (-2.81) |
| Constant | 17.02 (1.08) | 1.16 (0.07) | 10.62 (0.59) |
| Number of observations | 4,444 | 4,119 | 4,549 |
| Adjusted R^2 | 0.04 | 0.02 | 0.07 |

Source: BEEPS 2002.

Note: * denotes statistical significance at 5 percent level.

1999 to 2001. Those countries that had a more favorable business environment in 1999 saw significantly higher investment rates in the following three years. In particular, a 0.5 improvement on the business environment (the average improvement in the business environment for all countries between 1999 and 2000) would be associated with a 5.0 percent increase in the investment rate (ratio of investment to existing capital stock). However, the quality of the business environment is correlated

with acceleration in growth of aggregate demand, and this term may be capturing some of the effects of changes in aggregate demand that are unrelated to the business environment.

The estimation also shows a significant positive association between firms that engage in state capture and their average investment and real revenue growth rates. Those firms engaged in state capture have investment rates about 11 percent higher and real revenue growth rates about 13 percent than do other firms. At the same time, those firms that report being affected by state capture have slightly lower rates of productivity and sales growth than do other firms. This finding suggests that state capture is associated with high rates of growth and investment by those firms that engage in it, but is associated with unexpected reductions in real revenue growth and productivity of other firms. In other words, state capture appears to be aimed at strengthening the market position of those firms that engage in it at the expense of other firms, creating a weak negative productivity shock.

In addition to country-level factors such as growth in aggregate demand, quality of the business environment, and extent of state capture, several firm-level factors are associated with enterprise performance. Consistent with existing empirical evidence on enterprise performance in transition economies (see, for example, Carlin et al. 2001; Djankov and Murrell 2002) and firm origin and ownership appear to play a significant role. In particular, the regressions indicate that new private firms have investment rates about 18 percent higher and real revenue growth rates about 21 percent higher than privatized firms, while state-owned firms have rates 9 percent and 12 percent lower, respectively. At the same time, those firms that report having little or no market power have significantly lower rates of investment and real revenue growth than do those firms with significant market power as measured by the perceived elasticity of demand.

These results, therefore, show the importance of a sound business environment to investment rates at the firm level. The lack of significance of the business environment in the real revenue growth equation appears to arise from multicollinearity with the acceleration in the aggregate output growth term. The results also point to the significant economic benefits obtained from state capture. The economic costs associated with capture are more widely dispersed and weakly significant. Specifically, the ratio of the proportion of capture firms to the proportion of firms affected by capture is one to four. At the same time, the benefit to capture firms in terms of higher real revenue growth exceeds the lower real revenue growth of the firms affected by capture by a factor of four. This finding suggests that state capture is essentially a redistributive game over market opportunities and rents, with a few “winners” and a larger number of incremental “losers.”

Conclusion

This paper provides an overview of the 2002 round of BEEPS, describing key findings from the survey and analyzing the links between the business environment and

enterprise performance. The richness of the data and measures of the business environment—both qualitative and quantitative—shows the variation in the business environment across its various dimensions and countries, as well as changes in the business environment over time from the 1999 and 2002 rounds of the survey. We examine extensively the effect of the business environment and state capture on costs of doing business and on investment and growth in productivity and real revenues.

Several important conclusions arise from the descriptive analysis in this paper. First, the qualitative measures of the business environment in BEEPS appear to provide reasonably accurate measures of the quality of the business environment given their consistency with corresponding statistical measures and quantitative measures from BEEPS. Second, the analysis of the quantitative measures of the business environment shows a strong association between business obstacles on the one hand and the costs of doing business on the other, including those associated with corruption. Third, the qualitative measures of the business environment show a significant improvement between 1999 and 2002 for most transition countries and aspects of the business environment. Fourth, there is a significant correlation between the incidence of firms that engage in capture and those that are affected by it. This is consistent with state capture being directed at market opportunities and rents.

Our analysis of the relationship between the business environment and state capture on the one hand and enterprises' performance on the other also yields several important findings. First, the quality of the business environment in 1999 (based on qualitative measures) is significant and positively associated with investment by firms in the period 1999 to 2001. It also shows that state capture significantly boosts the investment and productivity of firms that engage in this activity but reduces the productivity growth of other firms. Moreover, the ratio of the proportion of firms affected by capture to that of captor firms is about four to one, while the benefit to captor firms in terms of higher real revenue growth exceeds the lower real revenue growth of firms affected by capture by a factor of four. This suggests that capture is essentially a redistributive game over market rents and opportunities with a few significant winners and a larger number of incremental losers.

Notes

The authors thank participants at the 2003 Annual Bank Conference on Development Economics – Europe, CEPR/ESRC Transition Economics Workshop on New Directions in Transition Economics, and seminars at the EBRD and University of Oxford, as well as two anonymous referees, for useful comments. The Japan-Europe Cooperation Fund provided major funding for the 2002 (and 1999) BEEPS, which we also gratefully acknowledge. The views expressed are those of the authors and not necessarily those of the EBRD.

1. The qualitative macroeconomic instability variable takes a value ranging from one (no business obstacle) to four (major business obstacle).

2. This procedure is repeated for each possible country and year observation. The t -statistic for the dummy variable is a normalized prediction error that is called the *studentized residual*.
3. The question asked firms to report how often they resort to bribery of tax authorities on a six-point scale, ranging from one (never) to six (always). The calculated statistic for each country is a share of firms that reported that they at least frequently (a score of four or higher) bribe tax authorities.
4. The survey question about whether a firm has been affected by capture is neutral with respect to whether the affects on the firm are positive or negative.
5. Changes in productivity at the firm level are the sum of the relevant sectoral constant term and the residuals from this equation: $a_j + \Delta e_{jt}$. However, only Δe_{jt} is used as a measure of technological progress because the sectoral constants are not statistically significant from zero and are therefore omitted.

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Vive la France! French Multinationals and Human Rights

ARIEL COLONOMOS AND JAVIER SANTISO

This paper focuses on the analysis of corporate responsibility and also examines the question of the international diffusion of norms in the context of globalization. It measures the influence of nonstate actors on foreign societies and states and, drawing on first-hand economic and financial empirical data, analyzes the reasons why French firms have adopted this discourse and have integrated many of the practices prevalent in the American private sector. It shows that the globalization of production and capital has created a favorable context for the reinterpretation in France of corporate social responsibility, despite France's political and historical specificity with respect to human rights. As French companies have become increasingly transnational in their operations and reliant on nonresident capital, they have been more willing to take the norm of corporate social responsibility into account. This economic context has had three major effects. First, it has influenced the construction of a domestic public space and new social networks—a market of virtue—based on cooperation among nongovernmental organizations (NGOs), norms activists, and businesses. Second, it has influenced some firms in the definition of their international strategy. Finally, it has compelled the French state to react in economic regulatory terms. Nonstate actors are thus constructing new norms and shaping the economic public debate, compelling states to react and setting new public policies.

The corporate social responsibility of multinational firms has become a crucial issue for both international relations and the international political economy. Initially restricted to corporate governance, the issue gradually came to include environmental

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Annual World Bank Conference on Development Economics—Europe 2004

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and social questions, and now is expanding to cover other ethical matters, such as labor legislation and human rights.

The many studies on this issue that have appeared in recent years focus principally on the growth of the idea of corporate social responsibility in the United States and its effects on the international strategy of U.S. firms.¹ They shed light on the criticism to which these firms are subject and examine the reasons behind this trend. They describe the increasing ethical demands made, not of states, but of firms, which are now perceived as more capable of addressing a large range of complaints. These studies also examine the regulatory consequences, both political and economic, of these prescriptive and moral concerns. The focus has been on the emergence of a standard endogenous to the socially and culturally homogenous universe of U.S. capitalism. One particularly interesting line of research focused also on the relationship between foreign direct investment (FDI) and human rights practices in developing nations. Some types of FDI are associated with improved human and labor rights; others are associated with deterioration. In recipient economies characterized by more capital-intensive production (extraction, manufacturing), workers' rights are better on average, while in more labor-intensive economies or sectors (textiles, services) the impact is more negative.²

Our research uses these different analyses as its starting point, and takes their findings into account while raising a new issue: the spread of these ethical standards beyond U.S. borders. We have attempted to understand how and why a foreign norm can have an impact on a non-American capitalist society. In this respect, the French case offers an excellent example. On the one hand, France—via its economy and its firms—is now a full participant in the process of globalization. On the other hand, for historical and political reasons, France maintains a sovereign vision of economic regulation. Moreover, France's humanitarian activists, NGOs fundamentally, are not accustomed to interpreting the actions of their economic players in terms of human rights. They have traditionally focused their activity on core "political" issues such as humanitarian intervention, torture, or famine. Business players have not been traditionally perceived as legitimate partners in the creation of a more humane international system. The tension between the political and economic spheres raises some fundamental issues. From the point of view of an analysis of the spread of ideas, this case shows an interesting particularity: though the notion of corporate social responsibility is of American origin, its emphasis on human rights gives it a French flavor.³ This give-and-take phenomenon is in many ways characteristic of globalization as a process for the reinvention of values and traditions. In this study, and with respect to international relations, we seek to clarify the link between economic globalization and the globalization of ideas.

To carry out this study, we have analyzed the economic behavior of the firms that make up France's SBF 120 stock market index, paying particular attention to their annual financial reports. These companies are the most significant in terms of market capitalization in France, and are also among the most internationalized in their operations. We have based our approach on the empirical analysis of economic data available in annual financial reports, examining in particular the location of French

firms abroad as well as the geographic origins of their capital. This statistical work has been supplemented by data from official government sources. Parallel to this empirical analysis, we conducted a series of interviews aimed at grasping the strategy of the main standard-setters—the NGOs, ethical rating agencies, and consultants operating in this field. We have tried to understand the role of these moral activists⁴ within the French context, and their impact on the nature and methods of the assessment of firms, as well as the reasons behind the increasing power of these experts in recent years.

By combining these two principal sources of information, we have sought to answer three questions. First, how and why must French firms pay attention to values and systems of reference which are, *a priori*, foreign? In other words, how did this new vision of reality spread to France⁵? This question is central to the French example in two ways. French business has developed within the context of a nation that promulgated one of the first universal declarations of human rights, and the French state, at least in its rhetoric, has made human rights one of the cornerstones of its external relations. Yet the political and economic spheres have traditionally been strictly differentiated in France, and human rights have hitherto been exclusively the concern of the former. However, and in spite of this dichotomy, human rights concerns have nowadays spilled over to the realm of business. This dynamic testifies to an important social change.

This initial question leads us to a second one: the relationship between the globalization of the economy and the globalization of ideas. What is the link between the transnationalization of the economy and the circulation of norms⁶? How, in the French case, did norms and debates, the outlines and terms of which were initially defined in the United States, come to be applied to French businesses? Third and last, the strategic role of moral activists must be analyzed in the light of both their motivation and the opportunities present in their own national contexts.

When answering these questions, we will be looking at the interplay between three dynamic forces: first, the economic and intellectual spread of norms and their consequent impact on French industry; second, the specificity of the French economic and humanitarian context; and third, the role of the state and the national legal framework.

The International Conditions Behind the Emergence of Corporate Social Responsibility in France

During the 1980s, in France as elsewhere, corporate social responsibility became a significant preoccupation of a great number of business practitioners. Various management studies from that period bear witness to this trend, as does the growth of the activity of consultants specialized in solving the social problems firms might face. In phase with the renewal of French capitalism, stimulated by the excellent performance of the stock market in the mid-1980s, companies sought to convey a virtuous public image, and their sound financial health allowed them to allocate resources to this effect.

At the same time, corporate responsibility was considered to be an internal matter, one primarily concerning the management of relations among a group's employees. Managerial literature in the 1980s stressed the importance of well-being within a company, yet French businesses were unaware of the "corporate social responsibility" theme that was by then well-developed in the United States. There was thus a significant time-lag between French firms, who paid no attention to this question, and U.S. society, where corporate responsibility had been debated since the 1970s in many forums and publications without, however, having much impact on American managerial practices.⁷

Toward the end of the 1990s, two phenomena contributed to the growing strength of the concern for ethics in French companies. Both were linked to the international scene. First, French businesses found themselves in legal trouble in the United States, and their troubles were amply reported in the French media. Their cases involved either merger-related insider trading or problems of a more political nature concerning cooperation between firms and dictatorial regimes condemned by humanitarian organizations.⁸ Later, French businesses—this time in the banking sector—were investigated by U.S. courts regarding their past and their political compromises. In 1997, France's largest banks became the targets of a class action lawsuit in New York. Action was brought against them for their activities during World War II, and the plaintiffs demanded U.S. justice to restore their confiscated accounts.⁹ This case also attracted media attention and entailed, as in the case of Elf Aquitaine, the intervention of the French diplomatic service, which decided as a matter of sovereignty to defend these businesses.

New legal developments enabled those cases to be brought to court. The Alien Tort Claims Act (ATCA), a law existing in the United States since 1789, has been used by lawyers and claimants who have filed a claim against foreign companies because of human right abuses. ATCA enables non-American citizens to bring a civil suit in U.S. courts for a tort that violates the law of nations or a treaty of the United States. The ATCA has been used for the first time in the United States in the *Filartiga* case, where members of the family of a person who had been tortured by the Paraguayan army filed a civil claim against a general responsible for this crime. In the 1980s, several class-action lawsuits based on the ATCA were brought in U.S. courts. In the 1990s a growing number of those claims targeted companies, and more specifically multinational firms.¹⁰ The ATCA enabled various class action lawsuits to be brought against Swiss banks when Jewish claimants asked for the restitution of the assets of their ancestors deposited in Switzerland during the war, or against German companies that had been using slave labor.¹¹

The lawsuits against French companies cases took place within a broader social context that made these demands even more worrying for those principally concerned, as the 1990s saw the rise, first in the United States and then within the United Nations, of the concept of transparency and corporate responsibility. Companies such as Nike and Reebok battled with NGOs and the media to save their public image. At the United Nations, 1997 was marked by a significant number of forums focusing exclusively on the social responsibility of multinationals. Inspired by antiglobalization movements as

well as by President Clinton's initiatives in 1996, UN officials decided to launch the Global Compact program.¹² For the UN this was a return to the kind of controversial debates of the 1970s that had surrounded multinationals and sanctions against South Africa. By taking the initiative of a reform aimed at mastering the negative consequences of globalization, the UN's prestige was boosted—thanks to a project the very scope of which reinforced its stature and accorded with its own definitions of good governance.

The debate's high media profile created a particularly sensitive climate and allowed French players, both NGOs and businesses, to measure fully the extent of the problem. The global publicity that corporate responsibility received confirmed the activists' belief in the need for action at the local and national levels. Both firms and NGOs were thus well informed about a situation that had evolved throughout the mid-1990s and took off in 1997, yet the French diplomatic service—on both the political and commercial side—showed itself little concerned by what was at stake. In fact, a worldwide study on NGOs and their expectations, which concentrated on their decision to focus on the business arena, indicated that this change was already taking place by the mid-1990s.¹³ From this time onward, most NGOs seemed to favor some degree of cooperation with businesses, abandoning their former confrontational attitude and hostility toward the business world. Their empathy with this conceptual universe meant that humanitarians and activists both firmly believed in the ripple effect of globalization and interdependence. Both were thus encouraged to think that the effects of this new paradigm would soon be felt in France.

During the 1980s, several pioneering organizations in France were already extolling ethical shareholding.¹⁴ Certain religious groups began to emulate the efforts undertaken by many U.S. congregations to promote ethics in business.¹⁵ They attempted to raise the awareness of both the public and the financial community regarding these concerns. Thus in 1983, one of the first ethical funds was created under the impetus of Sister Nicole Reille and the Meeschaert investment company.¹⁶ It must be noted that this mobilization had initially only a very limited impact, neither attracting potential investors nor gaining the attention of business. However, during the 1990s their activities grew exponentially. They encouraged a move toward ethical shareholding on the part of other religious congregations—for example, among religious movements that discovered the stock market while engaged in international development activities, such as the Catholic Committee Against Hunger and for Development.¹⁷ This was also the case of other organizations and NGOs, which went on to create their own investment funds, as Action against Hunger did in 1994 in partnership with *Crédit Lyonnais Asset Management*.¹⁸ By the beginning of the 2000s, the ethical fund industry became a growing (but still small) segment of the asset management industry, with 48 firms commercializing 118 socially responsible funds with total assets of less than 1 billion euros (far from the nearly 150 billion euros of socially responsible investing (SRI) funds managed by U.K. asset companies in 2004, or the 180 billion euros managed by Dutch SRI asset firms, not to mention the U.S. SRI industry, where ethical funds account for about 10 percent of all investments).¹⁹

The signs of a new concern for business thus appeared in France from the second half of the 1990s. The concept was able to develop using existing structures within

firms and because of the growing attraction this question held for businesses. Managerial and humanitarian actors were inspired by the emerging American trend. This halo effect—the mimicry by certain French organizations of their American models—is a direct result of this international context prevalent in the early 1990s and the impact it had on French business actors, who became rapidly aware of the need for change despite the lack of interest in the question shown by the French state.²⁰

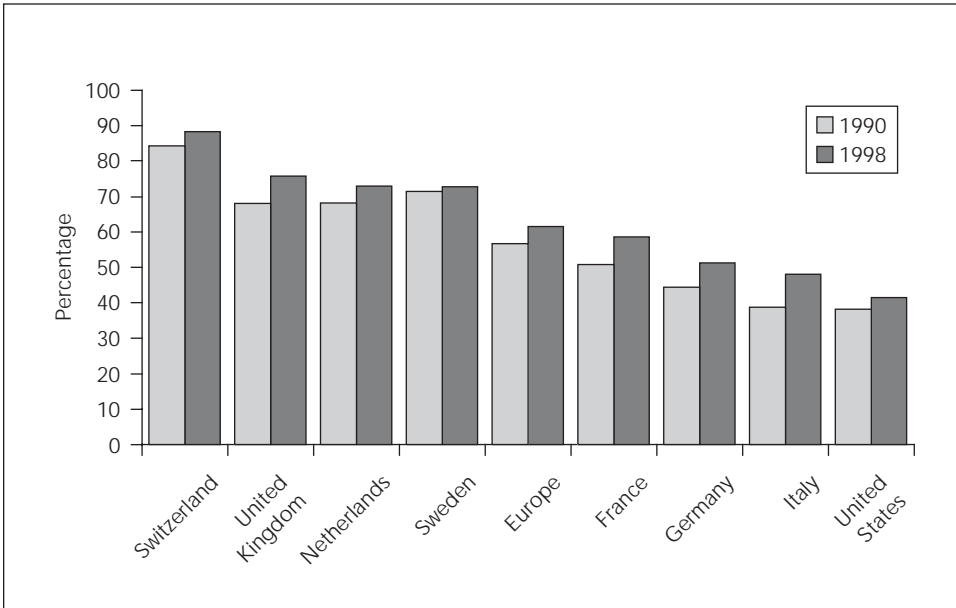
The Double Globalization of French Firms

At the same time, over the last two decades, the French economy underwent a radical transformation. This contributed to making French firms doubly receptive to North American normative innovations. On the one hand, French firms were engaged in an accelerated process of internationalization, spreading their operations outside France and Europe and making their presence in the North American market a top strategic priority. On the other hand, this internationalization of operations and commercial developments was accompanied by the opening-up of firms' capital to foreign investors in order to speed up their international development. The opening up to the American world was therefore twofold: via the imperatives of production and commercialization, and through company capital.

Within a few years, French firms underwent an impressive transformation in their international character. The amount of direct investment flows of French firms abroad represented, by the end of 1990s, US\$45 billion, almost 6 percent of the world total. In 1998, France became the fifth largest investor in the world, behind the United States, the United Kingdom, Germany, and Japan. The following year, France had risen to become the third most important international investor, registering an increase of almost 150 percent in its FDI between 1998 and 1999. For the most part, this investment was directed toward European countries (51 percent of the total in 1999), but by 1999, the United States alone absorbed 28 percent of French FDI. The French balance of payments for 1999 give the following figures of €119 billions for the outgoing flows of FDI and €905 billions for the total stock of FDI possessed by French residents.

Following the example of firms in other European Organisation for Economic Co-operation and Development (OECD) member states, French businesses were well set on the path toward globalization. The index of transnational activity assessed by the United Nations Conference on Trade and Development (UNCTAD), which aggregates three variables (assets, sales, and employment abroad as a percentage of the total), continued to increase in France, and by the end of the decade had even surpassed that of the United States. In France, this index increased from 50.9 percent in 1990 to 59 percent in 1998 (see figure 1). Although France does not top the list of European countries, the transnationality index of its firms recorded a strong progression during the 1990s. Thirteen to 15 French firms figure among the top 100 transnational corporations worldwide as assessed by UNCTAD in 2000 and 2001 (table 1).²¹

FIGURE 1.
Increase in Internationalization of French and European Multinationals:
UNCTAD Transnationality Index by Country, 1990 and 1998



Source: Authors, based on data from the UNCTAD *World Investment Report* 2000.

Other studies and indicators confirm this increasing internationalization of French firms throughout the 1990s. The *Templeton Global Performance Index*, produced by the University of Oxford from a sample of 214 global firms from 15 countries, listed nine French groups in its classification (behind the United States with its total of 109 and Japan with 46 firms). France is ranked seventh in the world within this classification, with such groups as Saint Gobain, Carrefour, Promodès, Alstom, Peugeot, Renault, France Telecom, Vivendi, and Usinor.²² This growing internationalization has entailed the spread of French firms not just beyond French borders, but also out of Europe. The index of Europeanization of French corporations, measured either in assets or in turnover, has diminished by 2.2 points between 1993 and 1997, a tendency reflected in other European countries.²³

Work carried out by Barclays Global Investors (BGI), one of the principal financial institutions investing in global firms, corroborates this analysis of the growing internationalization of French and European firms during the 1990s. Based on research intended to identify the nature of these “global firms,” the results indicated that at the beginning of 1998 only 12 percent of the firms could be considered global according to the criteria employed. Yet, by the end of 1998, the proportion of global firms had in fact doubled (24 percent). The globalization of firms is notably very striking in continental Europe, where global firms constitute almost 40 percent of market capitalization.²⁴

TABLE 1.
Global European Firms in the Top 100: UNCTAD Composite Transnationality Index (TNI), 2000

| Firm | Country | TNI (in %) |
|-------------------------|----------------|------------|
| Nestlé | Switzerland | 94.20% |
| Electrolux | Sweden | 92.70% |
| Solvay | Belgium | 92.30% |
| BAT | UK | 91.00% |
| Unilever | Netherlands/UK | 90.10% |
| Holderbank | Switzerland | 90.50% |
| ABB | Sweden | 89.10% |
| SmithKline Beecham | UK | 82.30% |
| SCA | Sweden | 80.80% |
| L'Air Liquide | France | 77.00% |
| Akzo Nobel | Netherlands | 76.80% |
| Diageo | UK | 76.70% |
| Michelin | France | 76.00% |
| Glaxo | UK | 75.50% |
| BP Amoco | UK | 74.90% |
| Lafarge | France | 71.30% |
| ABB | Switzerland | 69.10% |
| Rhone Poulenc | France | 69.10% |
| Total Fina | France | 69.00% |
| Danone | France | 64.60% |
| LVMH | France | 62.10% |
| Renault | France | 61.80% |
| Saint Gobain | France | 58.70% |
| Alcatel | France | 59.10% |
| Royal Dutch Shell | Netherlands/UK | 58% |
| Carrefour | France | 56% |
| Volkswagen | Germany | 54% |
| Elf Aquitaine | France | 52% |
| Daimler Chrysler | Germany | 50.40% |
| Suez Lyonnaise des Eaux | France | 45.60% |
| Peugeot | France | 44.20% |
| Fiat | Italy | 31.20% |
| Vivendi | France | 31.50% |
| Telefonica | Spain | 29.90% |
| RWE | Germany | 22.10% |

Source: Authors, using the UNCTAD *World Investment Report* 2000.

Data from the Ministry for the Economy, Finance and Industry also confirm this acceleration in the internationalization of French firms during the 1990s.²⁵ This internationalization comprises not only the growth of external sales but also takes in the increasing localization of production facilities abroad. North American companies are the obvious leaders in this respect (almost 300, about 40 percent of the sample), followed by European firms (197 in total, roughly 26 percent of the sample) (table 2). France is among the leaders, ranking fifth in this classification measuring the international spread of business subsidiaries. Thirty-seven French firms were among the 750 world leaders (5 percent of the total), and many of those firms possessed subsidiaries in more than 15 countries (see table 3).

The growing internationalization of French business has considerably increased French companies' exposure to North American influence. At the end of the 1990s, the major French firms made a significant part of their sales not only outside France (figure 2), but also outside Europe, and more particularly in the United States. Nearly 80 percent of the SBF 120 firms were active in the United States in 2000 (figure 3). U.S. sales accounted for a significant part of the volume of the activities of some; for 10 percent of them, sales in the United States represented more than 50 percent of their foreign takings (figure 4a and b).

This "Americanization" of French firms in real economic terms has been reinforced by a second phase of "Americanization" in financial terms. A survey conducted in 2001 by the North American consulting firm Georgeson Shareholder, specializing in research and shareholder representation, examined the growing internationalization of the shareholdings of French and European corporations.

TABLE 2.
Country of Origin of Groups with the Most Globalization, 2000

| Country of origin | Number of groups | | Number of groups | |
|-------------------|------------------|---------|------------------|---------|
| | in top 50 | Percent | in total of 750 | Percent |
| United States | 13 | 26 | 298 | 39 |
| Netherlands | 7 | 14 | 15 | 2 |
| Switzerland | 7 | 14 | 17 | 2 |
| Germany | 5 | 10 | 55 | 7 |
| United Kingdom | 5 | 10 | 65 | 9 |
| France | 3 | 6 | 37 | 5 |
| Korea | 2 | 4 | 15 | 2 |
| Italy | 2 | 4 | 8 | 1 |
| Japan | 2 | 4 | 169 | 22 |
| Sweden | 2 | 4 | 2 | 0 |
| Norway | 1 | 2 | 2 | 0 |

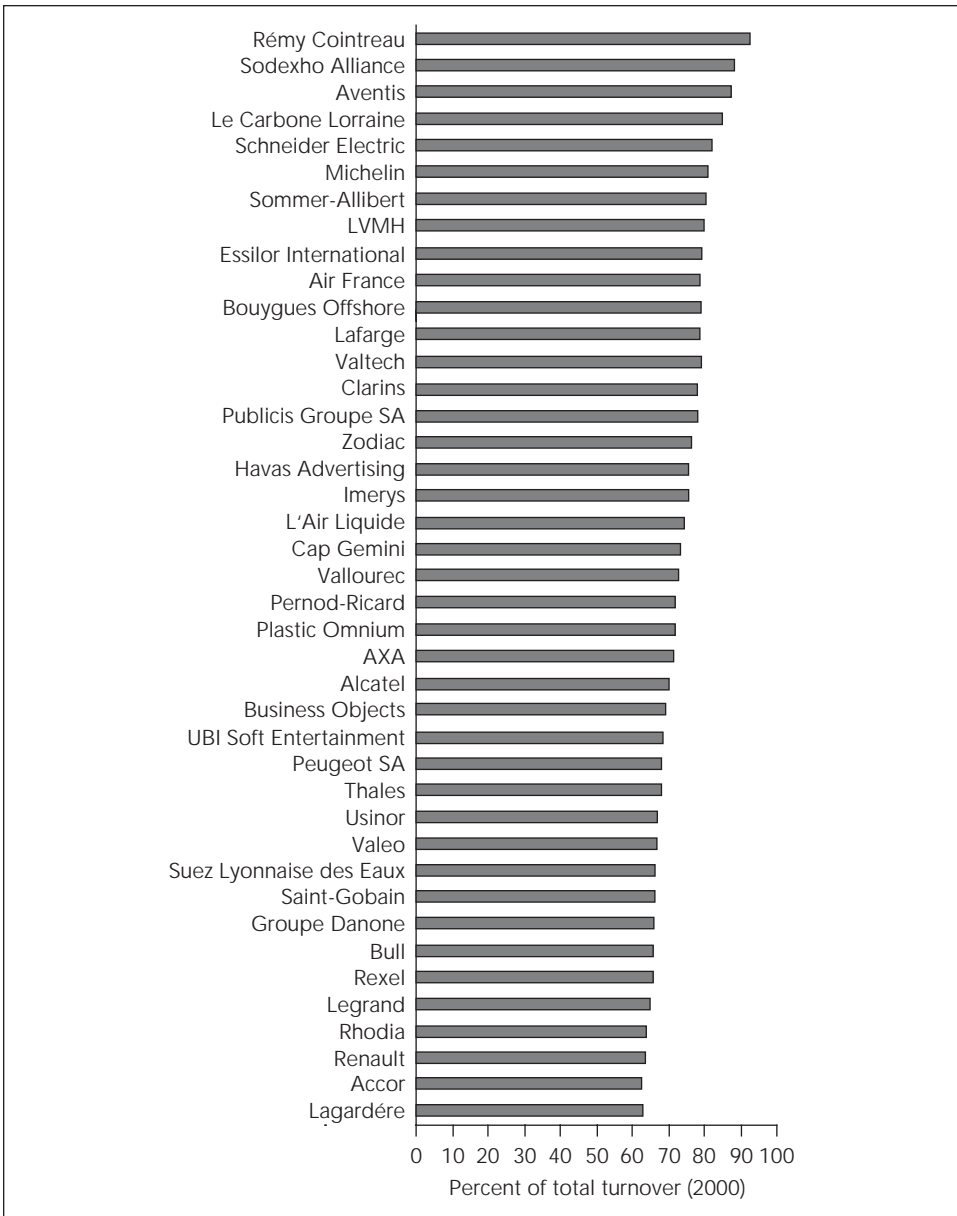
Source: External Economic Relations Directorate, Ministry of the Economy, Finance, and Industry (France), using the Dun & Bradstreet World Base™ databases.

TABLE 3.
Major Global French Groups

| Name | Ranking | Number of subsidiaries | Number of Countries in which group invests |
|--------------------------|---------|------------------------|--|
| Total Fina | 1 | 520 | 44 |
| Lafarge | 2 | 327 | 28 |
| Michelin | 3 | 98 | 25 |
| Louis Dreyfus | 4 | 89 | 19 |
| Usinor | 5 | 283 | 24 |
| Renault | 6 | 255 | 25 |
| Elf Aquitaine | 7 | 448 | 44 |
| Peugeot | 8 | 237 | 27 |
| Axa | 9 | 310 | 21 |
| LVMH | 10 | 276 | 35 |
| Mousquetaires | 11 | 303 | 9 |
| France Telecom | 12 | 273 | 19 |
| Société Générale | 13 | 374 | 32 |
| Financière d'Ivry | 14 | 21 | 6 |
| Carrefour | 15 | 118 | 14 |
| Caisse mutuelle agricole | 16 | 152 | 14 |
| Gaz de France | 17 | 50 | 7 |
| Foncière Euris | 18 | 43 | 5 |
| CCF | 19 | 285 | 21 |
| Dexia | 20 | 120 | 10 |
| Crédit Lyonnais | 21 | 203 | 26 |
| EDF | 22 | 131 | 13 |
| Air France | 23 | 34 | 6 |
| BNP | 24 | 824 | 39 |
| Airbus | 25 | 14 | 4 |
| SNCF | 26 | 188 | 8 |
| La Poste | 27 | 62 | 8 |
| CNCA | 28 | 315 | 26 |

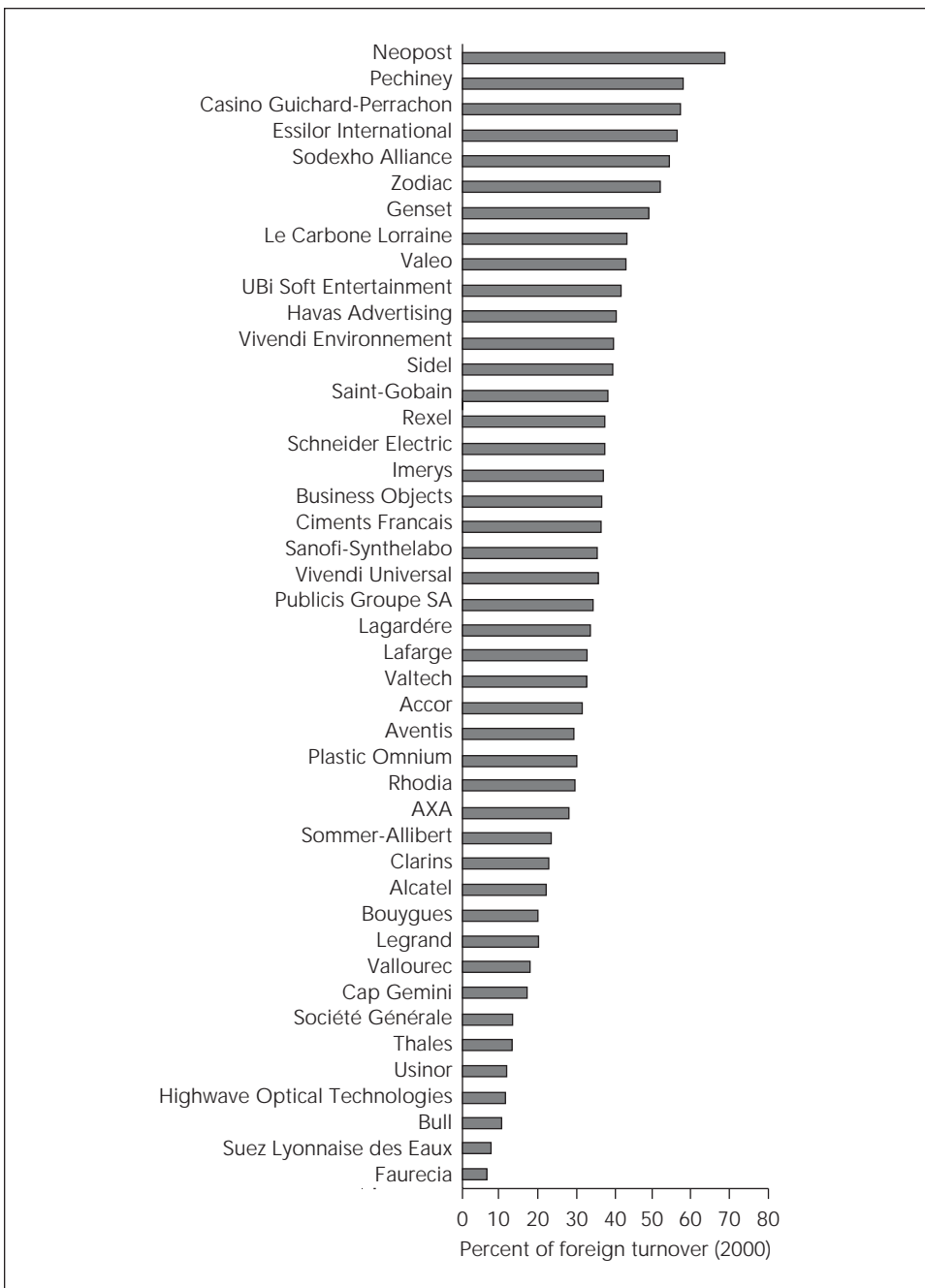
Source: External Economic Relations Directorate, Ministry of the Economy, Finance, and Industry (France), using the Dun & Bradstreet World Base™ databases.

FIGURE 2.
SBF 120 Firms: Turnover Outside France as Percent of Total Turnover, 2000



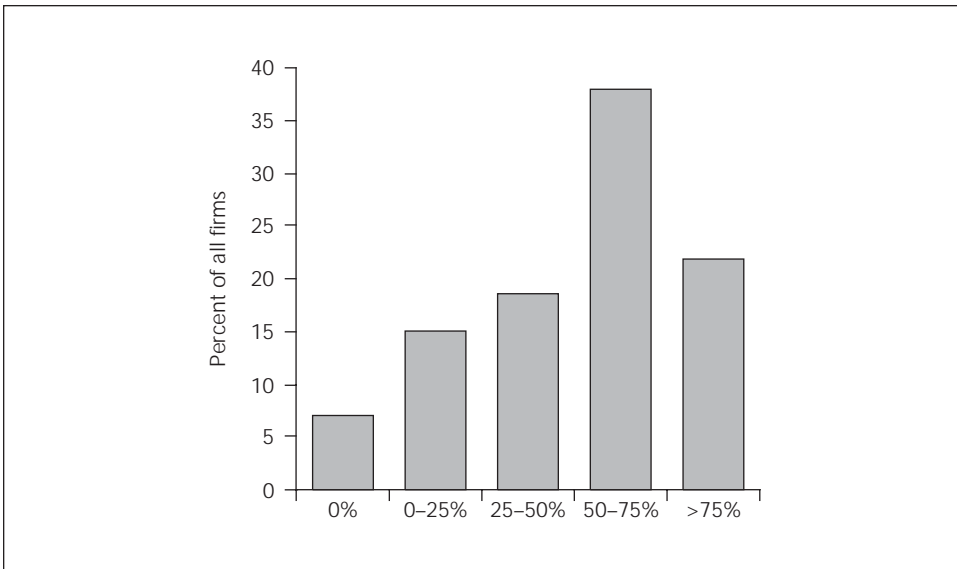
Sources: Authors, based on data from the 2000 annual financial reports on SBF 120 companies.

FIGURE 3.
SBF 120 Firms: North American Turnover as a Percentage of Foreign Turnover, 2000



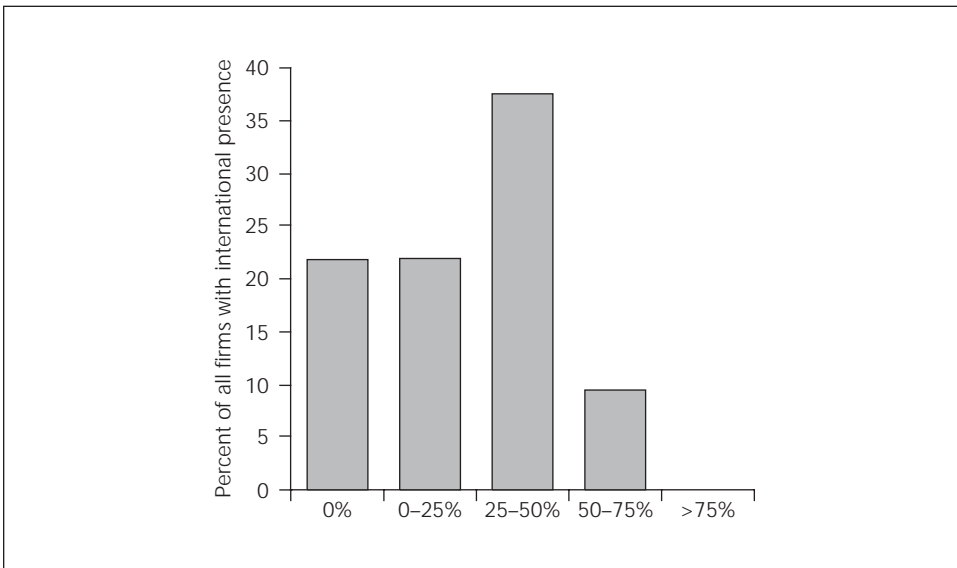
Sources: Authors, based on data from the 2000 annual financial reports on SBF 120 companies.

FIGURE 4A.
SBF 120 Firms: Turnover Out of France to Total Turnover



Source: Authors, based on data from the 2000 annual financial reports on SBF 120 companies; 2001 annual financial reports on companies.

FIGURE 4B.
SBF 120 Firms: North American Turnover as a Percent of Foreign Turnover



Source: Authors, based on data from the Paris Stock Exchange database: Euronext 2001; FTSE & ORSE 2001.

Conducted on French companies included in the CAC 40 and European firms from the Euro Stoxx 50, this survey confirmed the increasing power of nonresident shareholders in the capital of French companies. For some of these groups—such as Total Fina Elf, Vivendi Environnement, Alstom, Vivendi Universal, Axa, EADS, Alcatel, or Lafarge—nonresident shareholders hold more than 50 percent of the firm’s capital.

But part of the real interest of this study was its attempt to assess not just nonresident, but specifically U.S. shareholding in the capital of French firms. Anglo-American shareholders are relatively significant in about 25 percent of the SBF 120 companies (table 4). In 2000, all of these corporations, with two exceptions—the groups belonging to the arms industry—published an annual report or had a Web site that emphasized the themes of corporate governance, sustainable development, and/or corporate social responsibility. The subgroup of French firms with a high level of Anglo-American investment in their capital are particularly active in these different fields. Thus ethical, social, environmental, and corporate governance standards enjoy a particularly high visibility in the dozen or so groups where Anglo-American shareholders control more than 20 percent of the total of the firm’s capital, as, for example, in the cases of Alstom, Alcatel, Lafarge, Axa, Danone, and Vivendi Environnement. These groups are also those figuring in the UNCTAD classifications with among the highest index levels of transnationality.

They are also among the first to have developed a voluntary policy regarding environmental and social issues. As early as the first half of the 1990s, the hotel group Accor (in 1993), the semiconductor manufacturer ST Microelectronics (in 1994), the Suez Group (also in 1994), L’Oréal (in 1995), Vivendi (in 1995), and Danone (in 1997) set up programs in these areas. These not only drew up the blueprint for emergence of the ethical agenda in France, essentially focused on environmental and social issues, but also identified those businesses that might be the most receptive to ethical questions. From 2000 onward, these programs grew in scale, as with Danone, concerning ecological conservation issues and sustainable development, or the cement manufacturer Lafarge, which signed in the same year a global partnership with WWF. All these companies are among the most international businesses in France, either in terms of geographic spread or shareholding.

With a growing part of their turnover made outside France and Europe, particularly in the United States, and with Anglo-American funds ever more present in their capital structure, French firms became singularly receptive over the course of the 1990s to developments in North America, adopting and adapting the emerging normative standards. To a large extent, the motivations of French companies echoed those of their North American counterparts. Worries about public image, and policies aimed at establishing loyalty both internally (mobilizing staff around a cause) and externally (among consumers as much as among investors) drove this conversion. The “ethical risks” stemming from a media campaign against a firm or its products became a real concern for French businesses. As some cases have shown, a firm’s reputation can be badly damaged and the consequences for share value are potentially severe. In 2001, for example, the share price of Talisman Energy fell by 15 percent following the publication of a Canadian government study confirming NGO allegations of human rights violations in Sudan, where the company had operations.

TABLE 4.

The Growing Influence of Anglo-American Investors in France: Anglo-American Shareholders in French SBF 120

| Company | Nonresident shareholders (%) | North America and the United Kingdom (%) | Social reports (sustainable development, corporate governance, and so on) | Transnationality Index (UNCTAD) (%) |
|---------------------------|------------------------------|--|---|-------------------------------------|
| Alstom | 61.50 | 47 | Yes | na |
| Alcatel | 50 | 40 | Yes | 65.60 |
| Cap Gemini | 64 | 35 | Yes | na |
| Aventis | 58 | 32 | Yes | 54 |
| Lafarge | 50 | 29 | Yes | na |
| Axa | 52 | 28 | Yes | na |
| Lagardère | 47.50 | 27 | Yes | na |
| Danone | 47 | 26 | Yes | 67.80 |
| Vivendi Universal | 61.60 | 24.60 | Yes | 34 |
| Michelin | 48.00 | 24.00 | Yes | 73.80 |
| Saint-Gobain | 40 | 22 | Yes | na |
| Schneider Electric | 34 | 22 | Yes | na |
| Total Fina Elf | 65 | 20 | Yes | 70.30 |
| Valéo | 35 | 19 | Yes | na |
| Sanofi-Synthelabo | 27.20 | 18.10 | Yes | na |
| Bouygues | 25 | 17 | Yes | na |
| Accor | 40.80 | 16.90 | Yes | na |
| Air Liquide | 29.30 | 15.50 | Yes | 76.90 |
| Renault | 19 | 14 | Yes | 58.20 |
| Carrefour | 30.50 | 12 | Yes | 34.70 |
| Dexia | 74.30 | 11.20 | Yes | na |
| Thalès | 13.90 | 11.00 | No | na |
| Sodexho Alliance | 19.10 | 10.50 | Yes | na |
| LVMH | 17.80 | 8.10 | Yes | na |
| AGF | 73.40 | 7.90 | Yes | na |
| Casino Guichard | 9.40 | 5.70 | Yes | na |
| EADS | 50.90 | 5.50 | No | na |
| L'Oréal | 20 | 6.50 | Yes | na |
| Crédit Lyonnais | 35 | 5 | Yes | na |
| France Telecom/Orange | 10 | 4 | Yes | na |
| Pinault Printemps Redoute | 30.50 | nc | Yes | na |
| BNP Paribas | 40.00 | nc | Yes | na |
| Suez Lyonnaise des Eaux | nc | nc | Yes | 49.10 |
| Peugeot | nc | nc | Yes | 44.70 |
| Usinor | nc | nc | Yes | 43.50 |

Sources: Authors 2001, based on data from *Le Monde*, June 15, 2001; and Georgeson Shareholder 2001: <http://www.georgeson.com/>; ORSE 2001; and 2001 annual financial reports of SBF 120 firms.

The Professionalization of the Moral Expertise Field

During the 1990s, the growing internationalization of French firms was accompanied by a professionalization of the moral evaluation of these firms.²⁶ From 1997 onward, the main professional categories existing in the United States in this field began to make their appearance in France. This was a time when these issues, particularly in the textile and oil sectors, began to receive considerable attention in the American media. There was synchronization between the increasing internationalization of business and the development of moral expertise in civil society.

Recent studies of moral activists have examined the role of transnational movements and their impact on distant societies by looking at the role of NGOs and experts in southern and eastern countries.²⁷ Conversely, we have attempted to obtain a better idea of the moral activists' influence on other northern countries, whose businesspeople have been encouraged to adopt new practices when dealing with their partners in the South or the East. Comprehending the distinctive nature of human rights-based moral activism and its impact on French firms requires an understanding of the strategies of French activists in this field. The NGOs, religious movements, and journalists who are particularly active in moral assessment in France are all French. Yet because human rights is traditionally a political, not a commercial, concern, any movement criticizing business on these grounds has tended to be radical and confrontational in nature. The English and American approach, of investigating a firm in order to induce it to modify its behavior, without questioning either its right to exist or capitalism in general, was traditionally foreign to the French critical tradition.

However, a professional field opened up and took hold as the idea of moral assessment grew. Certain partnerships between actors who otherwise had nothing in common bore witness these changing circumstances. Rating firms were the real pioneers of moral assessment, and from 2000 on they began to promote the idea of evaluating firms from a human rights perspective. The best known of these, Arèse, created in 1997 by a woman, Geneviève Féron, whose management and financial experience was further influenced by her time in the United States. Arèse, was in fact an innovator in this domain, not just in France, but in Europe.²⁸ Arèse took full advantage of its early position in the untouched French market. Although the rating firm structure was then entirely unknown in France, Arèse created links to a number of other corporate and activist players. Arèse imported into France an idea that had emerged in the Anglo-American world and applied it in a market without competitors. In June 2001, and in parallel with the launch of other competing ethical indexes (in particular that of the FTSE, FTSE4GOOD, in July 2001),²⁹ Arèse inaugurated its own ethical index, the Sustainable Performance Index, in partnership with the index provider Stoxx. Within a few weeks the French and European landscape of ethical indexes had been considerably enlarged, and other institutions launched versions, such as the Dow Jones in partnership with the Swiss firm SAM.³⁰

The development of French rating agencies accelerated in 2002, when Nicole Notat, the former secretary-general of the French syndicate CFTD, took over Arèse

and transformed it as Vigeo in July 2002.³¹ With a capital of nearly 13 million euros and backed by Eulia (CDC and Caisse d'Épargne), Vigeo took the lead in the market. In 2003, Vigeo—with a staff of 36 analysts and back officers—was already rating 450 of the Euro Stoxx 600; in 2004 its market share in the French socially responsible investment (SRI) funds reached 45 percent of the total. Until that point Arèse was the sole French rating agency. From that point on, the market became more competitive. Geneviève Féron moved out and became the head of the French subsidiary of Core Ratings,³² a firm created in July 2002 and linked to the rating agency Fitch (itself own by Fimalac, a French holding company). In June 2004, Core Ratings France and BMJ, a firm specializing in formation and human rights consulting, merged.³³

The development of socially responsible investments via Arèse is paradoxical. Arèse grew out of and was initially supported by the Caisse des Dépôts et Consignations (CDC). At its origins in 1816, the CDC was a public financial institution, both specific to and representative of the French economic landscape, which blends the public and private spheres and supports a public service with an economic vocation. Initially, the CDC's principal mission was to manage private deposits seeking a certain level of security, and to use them to finance social and economic projects of public interest. During the twentieth century, its range of attributions and missions grew, and at the beginning of the twenty-first century it has taken advantage of the reshaping of the French banking and financial scene to develop its investment banking activities.³⁴

The CDC played a major role in the creation of Arèse. It was also one of the very first French institutions to innovate in the field of ethical investment by creating, in 1985, under the impetus of its manager for international activities, an ethical investment fund called Nord-Sud Développement (North-South Development) to contribute toward the development of emerging nations.³⁵ Following this, the institution increased its U.S. contacts and organized several visits in 1995 to the United States, led by the then-manager for the pensions and provident fund, Bernard Cochemé. These initiatives fit well with CDC's long-standing tradition of savings schemes with a social dimension that are popular in other French savings institutions such as the Caisse d'Épargne, particularly in the north of France. The CDC also assisted the creation of Novethic in 2001, the first portal in France to be devoted to sustainable development and ethical investment.³⁶ Bernard Cochemé, who in the interim had become director of the CDC, took over the reins of the UN's pension fund in early 2001,³⁷ thereby forging a link between a French public financial institution and the growing interest of international organizations in corporate social responsibility.

The belief that the French market was becoming increasingly receptive to ethical and human rights concerns oriented the strategies of different activists. Traditional NGOs, such as Amnesty International,³⁸ adapted their vision and approach. From the late 1990s, inspired and convinced by the American and British experience, Amnesty France has developed its activities in the field of economic rights, an approach that was validated at the international level in the summer of 2001 at their world congress in Dakar.³⁹

The private sector thus took over a new public good, in keeping with these new expectations. The belief in the development of a market of virtue and the ethical assessment of firms encouraged the creation, by the mid-1990s, of new professional positions within companies to respond to social pressure and, even more, to anticipate it.⁴⁰ The “déontologue,” the French version of the American “ethical officer,” appeared in the French market. The job entails communicating with the public on sensitive issues that might confront companies concerning social, ethical, and human rights. The ethical officer should be equipped with a certain know-how in handling highly nuanced public questions, including a full awareness of the subtle particularities of the French system. A recent study shows that major firms have thus tended to recruit senior civil servants to be their ethical officers.⁴¹ At the end of 1999, an association called the Observatoire sur la Responsabilité Sociétale des Entreprises (ORSE, or Observatory on Corporate Social Responsibility) was created, bringing together the 40 or so companies that boast an ethical officer.

Consulting and audit firms make up the fourth type of expert in the “virtuous marketplace.” Yet in France, at least for the time being, only a few have launched themselves in this field. PricewaterhouseCoopers (PWC) is the major player among the Big Five, though KPMG, Deloitte and Touche, and Ernst & Young all belong to ORSE. PWC was a pioneer in the French ethical consulting market, working first for the subsidiaries of U.S. firms in France and then by carrying out ethical audits for French businesses.⁴² This new dimension of the transnationalization of business ethics is still at an early stage, but it could prove decisive in the years to come.

French Firms and Human Rights

Corporate social responsibility is gaining new ground in France. During the 1980s, it was mainly concerned with staff industrial relations within French corporations. By the 1990s, social responsibility, mainly on environmental issues, had expanded to include the relations between businesses and their external partners, cities, the social fabric surrounding them, and their fellow citizens. Finally, and as the last stage in this expansion of the moral concern for responsibility, a number of French firms today are asked to account for their activities abroad from a human rights perspective.

The vast majority of companies listed on the CAC 40 or the SBF 120 have subsidiaries or other commercial activities in many countries directly targeted by human rights critics. When the Financial Times Stock Exchange (FTSE), one of the main global index providers, launched its ethical index in July 2001, it excluded many—around 10—French firms on the basis of human rights criteria (see table 5).⁴³ Paradoxically, some of these firms are extremely progressive on corporate governance or environmental questions. Among the firms excluded on human rights grounds are Air Liquide, Saint Gobain, Bouygues, Lafarge, Schneider Electric, Crédit Lyonnais, Lagardère, Thalès, Alstom, and Legrand. The 202 firms selected by this ethical index comprise a large number of British firms (83)—a bias largely explained by the

British origins of the index provider⁴⁴—and German firms (17). France is next with 15 companies, ahead of 11 Swiss, 11 Dutch, and 11 Italian companies (most surprisingly, no Scandinavian firms were selected). Fewer than 15 percent of SBF-listed firms are represented in this ethical index (almost 40 percent are from the CAC 40). Companies excluded because of human rights concerns represent a little more than 8 percent of the SBF 120 and almost a quarter of the CAC 40. As for the Dow Jones Stoxx Sustainability Indexes, in October 2001 only 11 French firms were included,⁴⁵ compared with 13 each from Sweden and Switzerland, 17 from Canada, 28 from Germany, 31 from Japan, 54 from Great Britain, and 75 from the United States. Within Europe, France led Italy (1 firm), Portugal (1), Spain (5), Belgium (5), and the Netherlands (9).⁴⁶

The analysis of different sources of information offers more precision concerning the presence of French firms in developing countries, both those that are respectful of human rights and those that are not. In the first place, studies carried out on the internationalization of French firms by the Ministry for the Economy, Finance and Industry underline the geographical bias of French firms, with French groups being particularly present in African and Middle-Eastern countries. An important study calculating an indicator of relative bilateral intensity—which isolates the effects of the size of the country of origin and the receiving country and thus allows for the unique measurement of the intensity of economic relations between two countries—reveals that French groups are in fact the leaders in a great many African and Middle-Eastern countries, some of which have very poor human rights records. France holds a dominant position in countries with which it has former historical ties, most notably 11 sub-Saharan countries, Algeria, and Tunisia. Total Fina Elf is thus present in Yemen, the Congo, Gabon, and Mauritania, and also in Angola and Myanmar. Peugeot is a leader in Algeria, as is BNP Paribas in Tunisia.⁴⁷

In our sample from the SBF 120, we have attempted to evaluate, using official sources, the presence of publicly held groups in developing countries, with the latter being ranked according to human rights criteria. We have created a scale of four levels of nonrespect for human rights with which to evaluate the human rights record of developing countries. Level 1 corresponds to countries under sanctions within the framework of Chapter VII of the UN; level 2 to countries under unilateral North American sanctions (if the country is already included in the UN list, we have left this country at level 1); finally, levels 3 and 4 correspond to countries appearing on the Freedom House index under the “non free” heading as well as those included in Amnesty International’s “geography of corporate risk,” or those evaluated negatively by other NGOs (FIDH, Human Rights Watch). Analysis of the data from annual reports has in turn helped us to establish a map of French corporate presence around the world (see table 6). Out of a total of 2,400 subsidiaries listed in our sample, only one-third are located in countries under sanction at any of the above levels for the nonrespect of human rights. However, if one adjusts this first analysis to take into account only those subsidiaries located in developing countries (a little more than 1,250), the result is much higher, with more than 50 percent of subsidiaries established in countries with a sanction level of 1, 2, 3, or 4.

TABLE 5.
French Companies and Ethical Indexes

| Sample for SBF 120 index | | | | | | |
|--------------------------|--------------------|--|--------------------|----------------|----------------------------|--|
| Sector | Company | Market value in euros as of 28/09/2001 | Weight in index | ORSE member | In FTSE- 4GOOD index | Excluded on human rights ground |
| 01 - Energy | | 113 608 974 027 | 12.08 | | | |
| | Bouygues Offshore | 617 100 000 | 0.07 | No | No | Yes |
| | Coflexip OPE | 3 370 184 255 | 0.36 | No | No | No |
| | Geophysique (GLE) | 402 955 067 | 0.04 | No | No | No |
| | Total Fina Elf | 109 218 734 705 | 11.61 | No | Yes | No |
| 02 - Commodities | | 21 200 271 607 | 2.25 | | | |
| | Air Liquide | 13 937 576 576 | 1.48 | No | No | Yes |
| | Pechiney | 3 340 793 949 | 0.36 | No | No | No |
| | Rhodia | 1 255 164 316 | 0.13 | Yes | No | No |
| | Usinor | 2 205 205 587 | 0.23 | Yes | No | No |
| | Vallourec | 461 531 179 | 0.05 | No | No | No |
| 03 - Construction | | 44 151 075 839 | 4.69 | | | |
| | Bouygues | 9 415 842 089 | 1.00 | No | No | Yes |
| | Ciments Francais | 1 553 112 071 | 0.17 | No | No | No |
| | Eiffage | 957 399 300 | 0.10 | No | No | No |
| | Imerys | 1 542 229 529 | 0.16 | No | No | No |
| | Lafarge | 11 623 708 074 | 1.24 | No | No | Yes |
| | Lapeyre | 853 861 428 | 0.09 | No | No | No |
| | Saint-Gobain | 13 008 373 519 | 1.38 | No | No | Yes |
| | Vinci | 5 196 549 828 | 0.55 | No | No | No |
| 04 - Equipment | | 120 484 569 581 | 12.81 | | | |
| | Alcatel | 15 339 170 503 | 1.63 | No | No | No |
| | Alstom | 3 614 201 562 | 0.38 | No | No | Yes |
| | Avenir Telecom | 85 499 810 | 0.01 | No | No | No |
| | Bull | 136 159 119 | 0.01 | No | No | No |
| | Carbone Lorraine | 308 850 577 | 0.03 | No | No | No |
| | Completel Europe | 113 994 208 | 0.01 | No | No | No |
| | EADS | 9 564 818 354 | 1.02 | No | No | No |
| | Equant | 3 086 112 670 | 0.33 | No | No | No |
| | France Telecom | 39 945 661 867 | 4.25 | No | Yes | No |
| | Gemplus Intl Sico. | 1 496 875 417 | 0.16 | No | No | No |
| | Genesys | 188 597 351 | 0.02 | No | No | No |
| | Highwave Optical | 69 870 694 | 0.01 | No | No | No |

Sample for SBF 120 index

| Sector | Company | Market value in euros as of 28/09/2001 | Weight in index | ORSE member | In FTSE- 4GOOD index | Excluded on human rights ground |
|-------------------------|---------------------|--|--------------------|----------------|----------------------------|--|
| | Oberthur Card Sys. | 331 513 639 | 0.04 | No | No | No |
| | Pinguely Haulotte | 389 644 198 | 0.04 | No | No | No |
| | Sagem Prov. Echange | 1 256 450 689 | 0.13 | No | No | No |
| | Schneider Electric | 9 605 994 560 | 1.02 | No | No | Yes |
| | Soitec Silicon | 448 023 920 | 0.05 | No | No | No |
| | STMicroelectronics | 20 932 224 107 | 2.23 | No | Yes | No |
| | Thales | 6 709 260 520 | 0.71 | No | No | Yes |
| | Thomson Multimedia | 5 699 940 422 | 0.61 | No | No | No |
| | Wavecom | 297 403 909 | 0.03 | No | No | No |
| | Zodiac | 864 301 486 | 0.09 | No | No | No |
| 05 - Automotive | | 27 208 957 228 | 2.89 | | | |
| | Faurecia | 1 205 410 110 | 0.13 | No | No | No |
| | Michelin | 3 900 024 523 | 0.41 | No | No | No |
| | Peugeot | 11 556 669 071 | 1.23 | No | No | No |
| | Renault | 7 673 554 144 | 0.82 | Yes | No | No |
| | Valeo | 2 873 299 379 | 0.31 | No | Yes | No |
| 06 - Consumer Goods | | 155 502 135 488 | 16.53 | | | |
| | Aventis | 65 464 094 134 | 6.96 | No | Yes | No |
| | Bic | 1 869 004 800 | 0.20 | No | No | No |
| | Clarins | 1 516 242 780 | 0.16 | No | No | No |
| | Essilor Intl | 3 074 649 455 | 0.33 | No | No | No |
| | Genset | 24 719 793 | 0.00 | No | No | No |
| | Hermes Intl | 4 749 019 158 | 0.50 | No | No | No |
| | Neopost | 848 546 692 | 0.09 | No | No | No |
| | L'Oreal | 51 177 905 512 | 5.44 | No | Yes | No |
| | Sanofi-Synthélabo | 26 159 592 459 | 2.78 | Yes | No | No |
| | Seb | 618 360 706 | 0.07 | No | No | No |
| 07 - Agro-Food Industry | | 51 724 769 465 | 5.50 | | | |
| | Altadis Sico. | 5 467 938 525 | 0.58 | No | No | No |
| | Beghin Say | 961 802 779 | 0.10 | No | No | No |
| | Danone | 21 370 342 136 | 2.27 | No | No | No |
| | LVMH | 17 097 370 226 | 1.82 | Yes | Yes | No |
| | Pernod-Ricard | 4 525 029 465 | 0.48 | No | Yes | No |
| | Rémy Cointreau | 976 307 662 | 0.10 | No | No | No |
| | Royal Canin | 1 325 978 672 | 0.14 | No | No | No |

TABLE 5.
French Companies and Ethical Indexes—Continued

| Sample for SBF 120 index | | | | | | |
|--------------------------|--------------------|--|--------------------|----------------|----------------------------|--|
| Sector | Company | Market value in euros as of 28/09/2001 | Weight in index | ORSE member | In FTSE- 4GOOD index | Excluded on human rights ground |
| 08 - Retailing | | 73 291 355 940 | 7.79 | | | |
| | Carrefour | 37 619 710 897 | 4.00 | No | No | No |
| | Casino Guichard | 7 913 148 489 | 0.84 | No | No | No |
| | Castorama Dubois | 8 012 624 076 | 0.85 | No | Yes | No |
| | Galeries Lafayette | 1 802 440 232 | 0.19 | No | No | No |
| | Grandvision | 404 927 890 | 0.04 | No | No | No |
| | Guyenne Gascogne | 511 686 126 | 0.05 | No | No | No |
| | Pinault Printemps | 14 390 228 836 | 1.53 | Yes | Yes | No |
| | Rexel | 2 636 589 395 | 0.28 | No | Yes | No |
| 09 - Other Services | | 165 741 212 185 | 17.62 | | | |
| | Accor | 6 187 883 676 | 0.66 | No | Yes | No |
| | Air France | 2 637 370 644 | 0.28 | No | No | No |
| | Alten | 400 253 257 | 0.04 | No | No | No |
| | Altran Techn. | 4 083 580 341 | 0.43 | No | No | No |
| | Atos Origin | 3 370 412 892 | 0.36 | No | No | No |
| | Business Objects | 1 281 563 409 | 0.14 | No | No | No |
| | Cap Gemini | 7 303 530 205 | 0.78 | Yes | Yes | No |
| | Club Mediterranee | 716 246 185 | 0.08 | No | No | No |
| | Dassault Systemes | 3 823 976 504 | 0.41 | No | No | No |
| | Euro Disney SCA | 876 301 084 | 0.09 | No | No | No |
| | Eurotunnel | 1 771 134 406 | 0.19 | No | No | No |
| | GFI Informatique | 387 271 030 | 0.04 | No | No | No |
| | Havas Advertising | 2 036 081 472 | 0.22 | No | No | No |
| | Infogrames Entert. | 468 546 969 | 0.05 | No | No | No |
| | Ingenico | 588 856 398 | 0.06 | No | No | No |
| | M6-Métropole TV | 2 367 401 986 | 0.25 | No | No | No |
| | NRJ Group | 1 105 223 397 | 0.12 | No | No | No |
| | Orange | 5 777 438 040 | 0.61 | No | No | No |
| | Publicis Groupe | 2 579 244 082 | 0.27 | No | No | No |
| | Sodexho Alliance | 7 323 336 383 | 0.78 | No | Yes | No |
| | Sopra | 355 754 820 | 0.04 | No | No | No |
| | Spir Communication | 384 139 954 | 0.04 | No | No | No |
| | SR Teleperformance | 573 510 002 | 0.06 | No | No | No |
| | Suez Lyon des Eaux | 37 199 176 006 | 3.95 | No | No | No |

Sample for SBF 120 index

| Sector | Company | Market value in euros as of 28/09/2001 | Weight in index | ORSE member | In FTSE- 4GOOD index | Excluded on human rights ground |
|--------------------------|------------------------|--|--------------------|----------------|----------------------------|--|
| | Technip | 2 220 850 132 | 0.24 | No | No | No |
| | TF1 | 2 660 907 816 | 0.28 | No | No | No |
| | Transiciel | 502 751 975 | 0.05 | No | No | No |
| | UBI Soft Entertainment | 448 091 733 | 0.05 | No | No | No |
| | Unilog | 638 818 409 | 0.07 | No | No | No |
| | Valtech | 95 151 299 | 0.01 | No | No | No |
| | Vivendi Environ. | 4 415 807 747 | 0.47 | Yes | No | No |
| | Vivendi Universal | 55 206 617 278 | 5.87 | Yes | No | No |
| | Wanadoo | 5 953 982 658 | 0.63 | No | No | No |
| 10 - Real Estate | | 5 609 996 227 | 0.60 | | | |
| | Simco | 2 029 950 000 | 0.22 | No | No | No |
| | Sophia | 1 037 802 548 | 0.11 | No | No | No |
| | Unibail | 2 542 243 679 | 0.27 | No | No | No |
| 11 - Financial Services | | 152 896 526 516 | 16.25 | | | |
| | AGF | 9 286 483 280 | 0.99 | No | No | No |
| | AXA | 37 184 005 643 | 3.95 | Yes | Yes | No |
| | BNP Paribas | 39 780 115 501 | 4.23 | Yes | Yes | No |
| | CNP Assurances | 4 682 911 228 | 0.50 | No | No | No |
| | Coface | 632 893 212 | 0.07 | No | No | No |
| | Crédit Lyonnais | 11 914 123 753 | 1.27 | Yes*** | No | Yes |
| | Dexia Sico. | 18 980 739 802 | 2.02 | No | No | No |
| | Euler | 1 322 459 860 | 0.14 | No | No | No |
| | Natexis BQ Popul. | 4 050 002 393 | 0.43 | No | No | No |
| | Scor | 1 461 340 318 | 0.16 | No | No | No |
| | Société Générale | 23 601 451 526 | 2.41 | Yes | Yes | No |
| 12 - Investment Services | | 9 282 042 565 | 0.99 | | | |
| | CGIP | 1 922 568 544 | 0.20 | No | No | No |
| | Eurazeo | 1 976 513 510 | 0.21 | No | No | No |
| | Isis OPE | 610 395 048 | 0.06 | No | No | No |
| | Lagardère | 4 772 565 463 | 0.51 | No | No | Yes |
| Total SBF 120 | | 940 701 886 666 | | 14 | 17 | 10 |
| In % | | | | 11.70 | 14.20 | 8.30 |

Sources: Authors, from the Paris Stock Exchange database: Euronext 2001; FTSE and ORSE 2001.

TABLE 6.
SBF 120 Firms: Presence in Emerging Markets under Human Rights Sanctions

| | Firms | Percentage of total subsidiaries |
|--|-------|----------------------------------|
| Total operations in emerging economies | 1,255 | |
| Level 1 sanctions | 16 | 1% |
| Level 2 sanctions | 168 | 13% |
| Level 3 sanctions | 411 | 33% |
| Level 4 sanctions | 45 | 4% |
| Total sanctions (Levels 1–4) | 640 | 51% |

SBF 120 firms: Presence abroad and sanctions

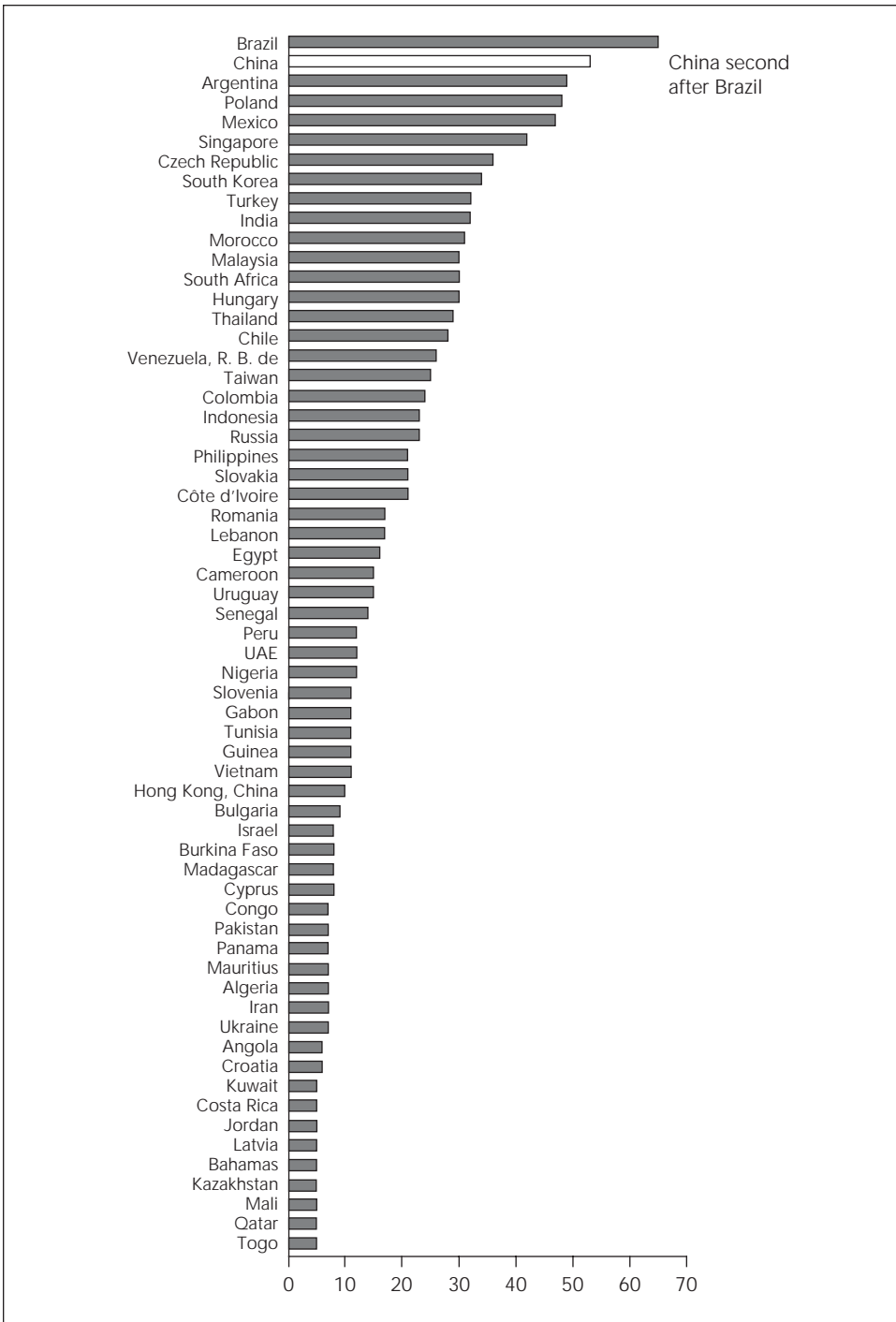
| | Firms | Percentage of total subsidiaries |
|------------------------------|-------|----------------------------------|
| Total operations abroad | 2,382 | |
| Level 1 sanctions | 16 | 1% |
| Level 2 sanctions | 168 | 7% |
| Level 3 sanctions | 411 | 17% |
| Level 4 sanctions | 45 | 2% |
| Total sanctions (Levels 1–4) | 640 | 27% |

Sources: Authors, from the 2000 annual financial reports on SBF 120 companies; 2001 annual financial reports on companies.

The analysis of financial reports also helps to give an idea of the propensity of firms to establish themselves, or not, in countries that respect human rights. It can only, however, amount to an approximation; many activities are not publicly listed, as annual reports are required only to provide an inventory of fully owned subsidiaries. Therefore, a mere one-fourth of SBF 120 firms indicate one or more establishments in China. Yet, with more than 50 subsidiaries (just after Brazil with a total of around 65), this country is the second developing-world destination for SBF companies (figures 5 and 6).

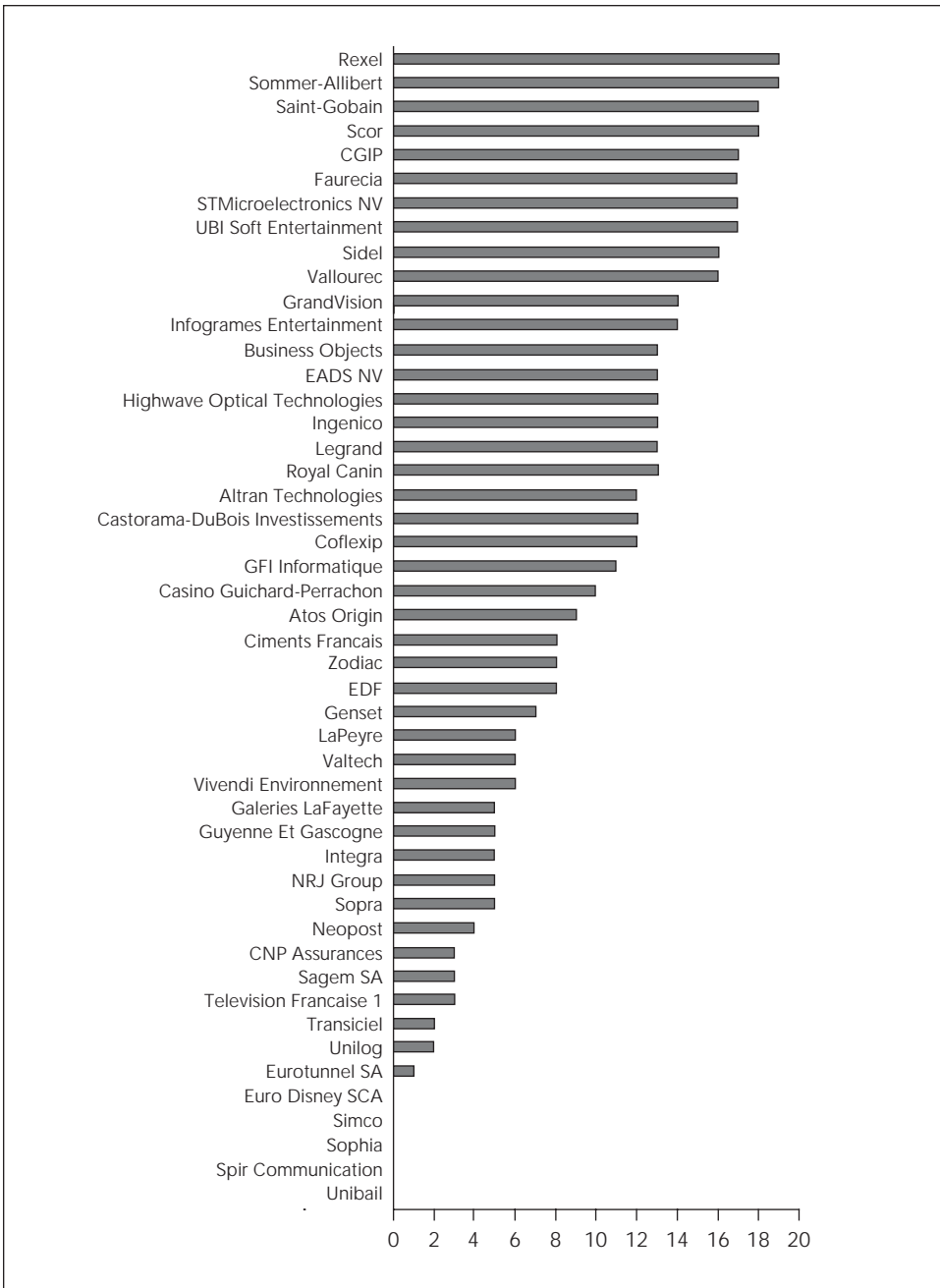
Therefore, China is the number one nondemocratic location for French businesses abroad, according to the information compiled from their financial annual reports. However, the level of commercial activity in general is actually far superior to that revealed by this single source, in, for example, countries such as Algeria or Iran (in each of which only 7 SBF 120 companies are listed as having concerns), or Myanmar, Saudi Arabia, or Sudan, where no commercial activity or FDI is listed. If one were to rely entirely on the information gleaned from annual financial reports of French companies, the companies would appear to be relatively virtuous and respectful of human rights in their implantation strategy. A ratio of nondemocratic/total of developing countries in which SBF 120 firms are concerned provides an indicator showing the extent to which firms have a tendency to invest in countries that do not respect human rights. Because of a lack of available data, not all of the SBF 120 firms can be included.

FIGURE 5.
Number of Subsidiaries of SBF 120 firms per Developing Economy, 2000



Sources: Authors, based on data from the 2000 and 2001 annual financial reports on SBF 120 companies.

FIGURE 6.
Number of Foreign Economies in which SBF 120 Firms Are Present



Sources: Authors, based on data from 2000 and 2001 annual financial reports of SBF 120 firms.

Nevertheless, the ratio and the classification so obtained constitute a first approximation of an SBF 120 firm Human Rights Indicator (table 7). Among those firms with a relatively high ratio—that is, firms whose investments in countries with poor human right records constitute a relatively high proportion of their total investment in the developing world, bearing in mind the incomplete nature of the information contained in financial reports—are those that are the most international in nature. These are, in particular, financial institutions (banks and insurance companies) as well as certain firms active in the petroleum sector. Industrial manufacturing groups range across the spectrum, with Vallourec and Usinor ranking first and last in the index.

Nevertheless, the index, and the classification of French firms and human rights thus obtained, reflects a somewhat incomplete image. Cross-checking these data with other sources of information allows us to appreciate the size of the gap between the data listed in the annual financial reports and the real level of activity. If we take the example of Cuba, between 1995 and 2000, the influx of FDI is estimated to have been almost US\$5 billion, \$4.2 billion of which has already been disbursed and is essentially concentrated in tourism, basic industry, the power industry, and telecommunications. In total, almost 370 firms from 46 countries operate on the island. Of this total, around 60 are French companies, roughly 17 percent of the total. The French share of FDI in the island represents 5.5 percent of the total, compared with more than US\$1 billion from Spain (25 percent), US\$840 million from Canada (20 percent), and US\$800 million from Italy (19 percent). France and the United Kingdom, with 5.5 percent and 3.3 percent of the FDI total respectively, appear in fourth and fifth positions.

Another database, from Transparency International, reveals also that French companies are among the most perceived bribers. Based on a survey of 835 interviews that were carried out between December 2001 and March 2002, principally with senior executives of domestic and foreign companies, the Transparency International Bribe Payers Index 2002 underlines that French, Japanese, and U.S. firms are, among OECD countries, those that are perceived to have strong propensities to pay or offer bribes to win or retain business (tables 7a and b).⁴⁸ France and the United States are also, according to this survey, the governments principally associate with practices such as diplomatic or political pressure, financial pressure, tied foreign aid, favors and gifts to officials, and so on used to gain unfair advantage in international trade and investment.

The Human Rights Virtue Market: Altruistic Utilitarianism versus Selfish Monetarism

From a constructivist perspective,⁴⁹ values and norms influence the definition of interests. Clearly, the market of virtue is an interesting example of this phenomenon. Because of the end of the Cold War, the emergence in multinational trade of the idea and the value of transparency and honesty has created its own market of professionals whose task is to promote codes inspired by such values. Their job is to sell their

TABLE 7.
SBF 120 Firm Human Rights Indicator: Firms Doing Business in Countries with Poor Human Rights Records.

Index Firms and Human Rights 2000 (ratio of non human rights/total emerging countries for each firm)

| Firm | Total Emerging Countries | Countries with No Human Rights | Ratio (%) |
|----------------------------|--------------------------|--------------------------------|-----------|
| Vallourec | 7 | 5 | 71 |
| Bouygues Offshore | 13 | 8 | 53 |
| Dexia | 4 | 2 | 50 |
| AXA | 26 | 12 | 46 |
| Natexis Banques Populaires | 20 | 9 | 45 |
| PPR | 25 | 11 | 44 |
| France Telecom | 23 | 10 | 43 |
| Sodexho Alliance | 46 | 19 | 41 |
| BNP Paribas | 62 | 24 | 39 |
| Eiffage | 16 | 6 | 38 |
| Bouygues | 16 | 6 | 38 |
| AGF | 14 | 5 | 38 |
| EADS | 32 | 12 | 36 |
| Péchiney | 14 | 5 | 36 |
| GDF | 14 | 5 | 36 |
| Alstom | 44 | 16 | 36 |
| Total Fina Elf | 73 | 25 | 34 |
| STMicroelectronics | 6 | 2 | 33 |
| Société Générale | 50 | 16 | 32 |
| Crédit Lyonnais | 16 | 5 | 31 |
| Bull | 30 | 9 | 29 |
| Coface | 53 | 16 | 29 |
| Air Liquide | 24 | 7 | 29 |
| Coflexip | 7 | 2 | 29 |
| Lafarge | 28 | 8 | 29 |
| Michelin | 14 | 5 | 29 |
| Alcatel | 7 | 2 | 29 |
| Altadis | 19 | 5 | 26 |
| Sanofi-Synthélabo | 4 | 1 | 25 |
| Ciments Francais | 4 | 1 | 25 |
| Imesys | 18 | 4 | 22 |
| Schneider Electric | 34 | 7 | 21 |
| EDF | 10 | 2 | 20 |
| Technip | 10 | 2 | 20 |

Index Firms and Human Rights 2000 (ratio of non human rights/total emerging countries for each firm)

| Firm | Total Emerging Countries | Countries with No Human Rights | Ratio (%) |
|---------------------|--------------------------|--------------------------------|-----------|
| Publicis | 30 | 6 | 20 |
| Valeo | 11 | 2 | 18 |
| Le Carbone Lorraine | 12 | 2 | 17 |
| Pernod Ricard | 18 | 3 | 17 |
| Euler | 7 | 1 | 17 |
| Rexel | 6 | 1 | 17 |
| Clarins | 6 | 1 | 17 |
| Ingenico | 6 | 1 | 17 |
| Danone | 20 | 3 | 15 |
| Lagardère | 13 | 2 | 15 |
| CGIP | 8 | 1 | 13 |
| Carrefour | 15 | 2 | 13 |
| Havas Advertising | 24 | 3 | 13 |
| Essilor | 17 | 2 | 12 |
| Rhodia | 9 | 1 | 11 |
| Rémy Cointreau | 18 | 2 | 11 |
| Sommer Allibert | 9 | 1 | 11 |
| L'Oréal | 28 | 3 | 11 |
| Casino | 9 | 1 | 11 |
| Faurecia | 10 | 1 | 10 |
| Scor | 10 | 1 | 10 |
| Renault | 10 | 1 | 10 |
| Eridiana | 16 | 1 | 6 |
| Royal Canin | 2 | 0 | 0 |
| Usinor | 8 | 0 | 0 |
| Vinci | 4 | 0 | 0 |
| Lapeyre | 2 | 0 | 0 |

Sources: Authors, based on data from 2000 and 2001 annual financial reports on SBF 120 firms.

ethical competence. The best way to develop their business is to succeed in finding places at the level of firms and to engage in a process of transnationalization of their skills. The process is dual, as values influence interests; “is” also has a direct impact on “ought.”⁵⁰ The profitability of moral entrepreneurs, as well as the profitability of so-called honest and transparent companies, is vital for the survival of the market of virtue.

American culture, more specifically Protestantism, has favored the development of this neo-Weberian ethics of capitalism. According to Weber, Protestantism has been

TABLE 7A.
Transparency International Bribe Payers Index 2002

In the business sectors with which you are most familiar, please indicate how likely companies from the following countries are to pay or offer bribes to win or retain business in this country [respondent's country of residence].

| Rank | Total sample | 2002 | 1999 | OECD Convention |
|------|---------------------------|------------|---------------|---------------------|
| | | 835 | 779 | (as of 14 May 2002) |
| 1 | Australia | 8.5 | 8.1 | Ratified |
| 2 | Sweden | 8.4 | 8.3 | Ratified |
| | Switzerland | 8.4 | 7.7 | Ratified |
| 4 | Austria | 8.2 | 7.8 | Ratified |
| 5 | Canada | 8.1 | 8.1 | Ratified |
| 6 | Netherlands | 7.8 | 7.4 | Ratified |
| | Belgium | 7.8 | 6.8 | Ratified |
| 8 | United Kingdom | 6.9 | 7.2 | Ratified |
| 9 | Singapore | 6.3 | 5.7 | not signed |
| | Germany | 6.3 | 6.2 | Ratified |
| 11 | Spain | 5.8 | 5.3 | Ratified |
| 12 | France | 5.5 | 5.2 | Ratified |
| 13 | USA | 5.3 | 6.2 | Ratified |
| | Japan | 5.3 | 5.1 | Ratified |
| 15 | Malaysia | 4.3 | 3.9 | not signed |
| | Hong Kong | 4.3 | n.a.* | not signed |
| 17 | Italy | 4.1 | 3.7 | Ratified |
| 18 | South Korea | 3.9 | 3.4 | Ratified |
| 19 | Taiwan | 3.8 | 3.5 | not signed |
| 20 | China (People's Rep.) | 3.5 | 3.1 | not signed |
| 21 | Russia | 3.2 | n.a.** | not signed |
| | <i>Domestic companies</i> | <i>1.9</i> | <i>n.a.**</i> | |

The question related to the propensity of companies from leading exporting countries to pay bribes to senior public officials in the surveyed emerging market countries.

A perfect score, indicating zero perceived propensity to pay bribes, is 10.0, and thus the ranking starts with companies from countries that are seen to have a low propensity for foreign bribe paying. In the 2002 survey, all the data indicated that domestically owned companies in the 15 countries surveyed have a very high propensity to pay bribes—higher than that of foreign firms.

Source: Transparency International 2002.

one of the most important driving forces in the development of capitalism. Protestantism is also one of the main components of the spread of the creed of honesty and transparency within market players. Protestant churches have been pioneers in the development of ethical stocks when their fund managers decided to select the companies in which the church would invest by using criteria in accordance with the value and the beliefs of their congregations. More recently, Protestant movements and ethnic groups have played an important role in the launching of boycotts against com-

TABLE 7B.
Countries Using Other Unfair Means to Gain or Retain Business

Which three governments do you principally associate with practices such as those mentioned above [other means—besides bribery—used to gain unfair advantage in international trade and investment]?

| | <u>2002</u> |
|-----------------------|-------------|
| | <u>567</u> |
| Total sample | % |
| USA | 58 |
| France | 26 |
| United Kingdom | 19 |
| Japan | 18 |
| China (People's Rep.) | 16 |
| Russia | 13 |
| This country | 12 |
| Germany | 11 |
| Spain | 9 |
| Italy | 5 |
| Taiwan | 5 |
| South Korea | 4 |
| Switzerland | 4 |
| Malaysia | 3 |
| Canada | 3 |
| Netherlands | 3 |
| Singapore | 1 |
| Belgium | 1 |
| Australia | 1 |
| Austria | 1 |
| Hong Kong | 1 |
| Sweden | <1 |

The score reflects the percentage responses where the country featured among the three countries cited as principally associated with other unfair practices.

Source: Transparency International 2002.

panies that had been trading with the Apartheid regime or that had committed gross violations of human rights in a country such as Myanmar, for example. Crusading is also an ethos that characterizes a long-standing American tradition that traces back to prohibition and temperance movements in the nineteenth century.⁵¹

In order for this movement to survive, moral entrepreneurs need to bring evidence of the profitability of honesty. Indeed, many English-language publications attempt to prove, on a statistical basis, that several successful businesses are most receptive to human rights issues, and that they perform better precisely because of the care they attach to their public image.⁵² Several authors have also engaged in a debate

on the profitability of altruism, which calls into question the conventional wisdom according to which selfishness and free-riding are the only path that lead to enrichment. As Robert Frank (2004) has been willing to prove, despite the fact that they have to endure extra costs, socially responsible businesses survive in a competitive environment where their competitors do not necessarily adopt ethical codes. This is of course a much-contested issue. On the one hand, there are numerous cases—such as that of Levi’s, the first company to retreat from Myanmar when ample evidence of human rights abuses had been brought in the public realm—that show the dangers of humanitarianism. On the other hand, there are also other examples of profitable companies, such as Ben & Jerry’s or The Body Shop, that show that virtuous or socially responsible behavior does not threaten profitability—on the contrary, these companies have used this characteristic in their advertising campaigns.

The contagious effect by which these beliefs are spread attests to the force of the American model and its altruistic utilitarianism, an association between interests and virtue founded on the idea that virtue is economically worthwhile.⁵³ The entrepreneurs of virtue have created new creeds, associating profitability and human rights, that stand in opposition to traditional monetarist science.⁵⁴ This move toward the normative signals a change in beliefs. The anti-Friedmanian belief, according to which virtue can indeed yield profit, has gained ground. A conversion to humanitarianism has thus become an opportunity for businesses to seize. One needs to remember the social and political context in which Milton Friedman professed his amorality: “When I hear businessmen speak eloquently about the ‘social responsibilities of business in a free-enterprise system’, I’m reminded of the wonderful line about the Frenchman who discovered at the age of 70 that he had been speaking prose all his life. . . . In fact they are—or would be if they or anyone else took them seriously—preaching pure and unadulterated socialism. Businessmen who talk this way are unwitting puppets of the intellectual forces that have been undermining the basis of a free society these past decades” (Friedman 1970, p. 122).

This public stance clearly echoes the fears of the Cold War and the anti-communist crusade in which economists such as Milton Friedman were engaged (Friedman traveled to Chile when the country was ruled by Pinochet and his students have been key economic advisers of the regime). The post-Cold War turn has rendered this public stance obsolete and has encouraged market players to convert to the belief in the profitability of virtue. In doing so, managers are in a position to justify their behavior from a double perspective: they bring economic justification of their strategy that maximizes profit in the long run and reassures the market, and they also bring moral justification in the public realm in a context where companies and market players are no longer able to call for an anti-communist crusade to legitimize capitalism.

One of the most important elements of this market of virtue is the development of ethical stock indexes. The large media coverage from which these funds have benefited is the best publicity the key players of this market of virtue can hope for. Empirical research, using an international database of more than 100 German, U.K., and U.S. ethical mutual funds, underlines the fact that ethical funds can outperform their peers and that there is little evidence of significant differences in risk-

adjusted returns between ethical and conventional funds for 1900–2001, a period of more than a decade.⁵⁵ The same research group showed in two later studies that the same conclusions can be extended to Australian and Canadian ethical funds. Using Deminor Corporate Governance Ratings for companies included in the FTSE Eurotop 300, and comparing build portfolios consisting of well-governed and poorly governed companies, and comparing their performance, Bauer, Koedjik, and Otten found a positive relationship between firm valuation and corporate governance, but a negative one between firm performance, as approximated by net profit margin (NPM) and return on-equity (ROE), and corporate governance. However, they show also that there is an interesting learning process. During 1992–6, Australian domestic ethical funds underperform their conventional counterparts significantly. During 1996–2003, the ethical funds match the performance of conventional funds more closely. This suggests there is a learning effect for the relatively young ethical investment industry.

Other researchers, such as Gompers, Ishii, and Metrick in a paper published in 2003, find that firms with better corporate governance also have higher stock market valuations, higher profitability, and faster sales. There is also evidence that buying shares of firms that score high in corporate governance and selling shares in firms that do not yields abnormally positive returns. Constructing a corporate governance rating (CGR) for German firms, empirical research conducted by Drobetz et al. (2004) documented a positive relationship between the CGR and firm value for German firms. The results regarding performance and returns of ethical funds reached by another research team, the quantitative team of Commerzbank, are, however, more mixed. Their analysis underlined the higher risks relative to the market portfolio simply because managers of socially responsible funds (SRI) are constrained to hold only socially responsible investments and these tended to be evaluated taking into account the performance of the standard index rather than the SRI benchmark, which presents a higher tracking error—that is, a measure of how a portfolio is likely to deviate from a benchmark.⁵⁶

The arrival by the end of 2002, of the Vice Fund,⁵⁷ a fund whose purpose is to invest in companies eschewed by SRI community (tobacco, alcohol, defense, and gambling), sparked the debate on the merits of ethics or morality as an incentive for investment. The Vice Fund's fundamental promise is higher investment returns. However, SRI funds might not only be about investment returns, as suggested by Alan Lewis in his book (2002), in which he underlined, quoting a 2000 survey of 1,000 ethical investors, that 80 percent would stick with their funds in spite of lower returns.

As French businesses become ever more internationalized and operational in numerous nondemocratic developing nations, they are more and more exposed to NGO criticism. They are confronted with a double threat: first, the possibility that some humanitarian movements will criticize the activities of French firms on the grounds of compromising activities by their subsidiaries in the developing world, and second, that elements of U.S. society—the courts or the media—will react negatively on the basis of these reports. As a consequence, certain French actors have been

attempting, since the late 1990s, to anticipate a specifically French reaction to their potentially dubious activities, spurred on further by the fact that the French media has entered the fray.⁵⁸

Modeled on certain conventions existing at the international level within the UN or in the United States,⁵⁹ partnerships are beginning to form between NGOs and businesses. NGOs are invited by business people to carry out social audits of their activities on French soil and, equally, of the activities of their subsidiaries or subcontractors abroad. The strategy of the firms, as much as that of the NGOs, is interesting to study in this respect. Faced with the opening of the new market of virtue, several pioneers have chosen to invest in a domain that they believe and hope will bear fruit. Faith in the profitability of a virtuous marketplace motivates and directs their strategy. For the NGOs, the gamble appears audacious. Some of them have decided to cooperate with businesses in order to inspect their activities and to grant them, if these were to prove sufficiently respectable, their approval in return. By making this choice, NGOs have laid themselves open to criticism from their competitors in the humanitarian sector, who have accused them of seeking profit and of betraying their ideals. As a consequence, free-riding holds certain risks and depends on the success of this foray by humanitarian actors into the field of corporate moral expertise.

Also in the mid-1990s, the increasing activism of NGOs in questioning firms on human rights grounds led some of them to undertake a more meaningful long-term dialogue with industry and the financial sector. The example of the Fédération Internationale des Droits de l'Homme (FIDH, or International Federation of Human Rights) is illustrative. After having waged a campaign against several petroleum firms, most notably Total, whose Myanmar operations were the subject of a special report in October 1996, the FIDH replied favorably to a request from a major retailing chain to advise it on human rights issues.⁶⁰ Carrefour was at this time one of the most internationalized firms in France as well as a leader in the distribution sector. It was also one of the first in its sector to carry out a significant audit of its suppliers, as early as 1999 (80 social audits carried out on 60 suppliers worldwide). In 2001, FIDH began a new phase of activity directed at the private sector by creating, with the support of the Caisse des Dépôts et Consignations (CDC) and the company managing the post office (La Poste), an ethical profit-sharing fund focused exclusively on human rights.⁶¹

A number of businesses are now actively soliciting audit services from human rights pioneers. In the current context, they could benefit from publicity favoring the “virtuous.” But the potential cost of such a strategy could nonetheless be significant. Obviously, the risk of discredit is fairly limited in the sense that it is the firm that takes the initiative in setting up the procedure. On the other hand, the cost of the study could be considerable, and above all, the findings could force costly management changes. Pioneers are motivated by the idea that their “good faith” will yield benefits, given time. In France, the distribution sector was drawn into this virtuous circle, following the examples of Carrefour and Monoprix. Pioneers are encouraged in their approach by the belief that its costs will be offset—those who pay the price now will see their investment pay off, while those who are reluctant to do so will see their activities suffer as a result of negative publicity.

A Journey Toward Ethical Governance

Companies in France and elsewhere are now aware of a new kind of risk associated with political governance issues. Firms believe that they might be vulnerable to the cost and damage to their reputation associated with human rights violations, for example, as NGOs are becoming increasingly aware of firms' actions in emerging markets and of their economic, social, and political impact on the home countries of their investments. Organizations such as Amnesty International or the International Federation of Human Rights developed monitoring of firms' investments, carefully watching transnational corporations that operate in countries with repressive administrations where the rule of law is weak; where the independence of the judiciary is questionable; and where arbitrary arrest, detention, torture, and extrajudicial executions take place.⁶² The same applies on other fields such as environmental issues, where NGOs activities are putting pressure on firms and, on the contrary, companies are developing more and more programs to respond to the demand of "ethical governance."⁶³

According to the Global Reporting Initiative (GRI), more than 2,500 corporate environmental or sustainability reports have been published by multinationals as different as Royal Dutch Shell, Ericsson, Ikea, Ford, Canon, BASF, Endesa, Carrefour, or Novo Nordisk. A recent survey produced by KPMG found that 45 percent of the world largest 250 firms are producing now such reports, up from 35 percent in 1999.⁶⁴ But sustainability is not only adopted and adapted by OECD multinationals, it also benefits large companies and societies in the developing world, as underlined by a report produced by the International Finance Corporation, SustainAbility and the Ethos Institute.⁶⁵ There is no doubt that efforts to demonstrate the links between corporate social responsibility and profits are intensifying around the world. The implementation of corporate task forces and codes of conduct covering security, human rights, social investment, and public engagement issues in India, Mexico, or South Africa is an encouraging trend. But all those activities could also be a waste of time without some ethical governance (don't forget for example that Enron became a champion in such corporate responsibility marketing), and may be—once again—*checks* and balances. As stressed by the KPMG report mentioned before, the increase in reporting is good news, but there is a lack of independent verification. Only a quarter of the reports produced by the 250 top Global Fortune companies are independently verified.

At the same time, shareholders, particularly institutional investors, are becoming increasingly sensitive to these risks and are seeking reassurance from companies that the risks are being addressed effectively. The concept of sustainability is gaining ground even in the financial world. In 1999, Dow Jones launched an ethical index, named Global Sustainability Index. From Storebrand Asset Management in Norway, Dexia Cordius Asset Management in Belgium, and Sustainable Asset Management in Switzerland to Friends and Ivory & Sime, Morley Fund Management, or Henderson investment management company in the United Kingdom, there is an increasing number of ethical funds and socially responsible investment funds developed all

around Europe (taking after the development trend in the United States). In parallel to this emerging trend, index producers are also providing tools: “ethical indexes” so fund managers may have benchmarks.⁶⁶ Socially responsible investment criteria range from corporate governance to political governance, and to social, environmental, and, more recently, human rights issues. On December 10, 2001, for example, the French postal service, mutual insurer MACIF, and the “Caisse des Dépôts et Consignations” launched a new ethical and solidarity-based investment fund that will support the International Federation of Human Rights’ Leagues (IFHR).⁶⁷

This trend is not only centered on OECD countries but is also spreading toward emerging economies. In Brazil, the asset management industry is well developed and firms’ interest on social, environmental, political, and corporate governance issues are very important. Ethical funds are starting to be born, while the Sao Paulo-based Ethos Institute is already developing corporate social responsibility indicators.⁶⁸ Bovespa, Sao Paulo’s stock exchange, is starting its first IPO for Novo Mercado, the new market open to those corporations meeting high governance standards; consulting companies are also marketing new corporate governance rating services, such as LCV and Unibanco, which had CSR investing on its agenda, to Brazilian firms.⁶⁹

Some leading investment firms are becoming increasingly active in corporate governance issues, launching funds that screen corporate governance standards, such as Bradesco Templeton or Rio de Janeiro-based Dynamo, which show index-beating results for activism. Others, such as ABN Amro Asset Management, have already gone beyond launching a fund aimed strictly at companies with high records in social, environmental, and corporate governance practices. Meanwhile, North American consumers continue to represent the most socially demanding market for companies, but these demands are not exclusive to developed countries. In the emerging world, Mexico ranks high in the Corporate Social Responsibility Index (CSR Index) based on annual surveys developed by the Canadian based consulting firm Environics International. Argentina ranks with most European countries in the second-tier countries of the CSR Index.⁷⁰

But where the trend toward more socially responsible investment is most visible is in the United States. There, in 2002, the leading U.S. investment company, California Public Employees’ Pension Scheme (CalPERS), in association with Wilshire Associates, also established a new framework for evaluating emerging-market countries in order to introduce political governance issues in the screenings of investments. Investment decisions in emerging markets not only integrate financial and corporate governance criteria but also political governance ones ranging from political stability—including progress toward democratic institutions, civil liberties, independent judiciary and legal protection, transparency regarding freedom of the press, and so on. This is an important initiative because of the actor (a leading firm in the investment community) and also because of emerging markets’ related investments. CalPERS, despite its size (US\$150 billion assets under management), is a relatively small investor in emerging markets, where it has less than US\$300 million allocated, but its decision is symbolic of a changing mood. It is also a pioneering one because the standards of investment it built to invest in emerging economies included both finan-

cial and ethical criteria such as transparency and market liquidity as well as labor policies and political stability indicators.

In the end, a completed scoring has been developed, ranking countries on a three-point scale where a score of 1 represents the least established, least able to support institutional investment and a score of 3 represents the most established, most able to support institutional investment.⁷¹ In February 2002, CalPERS announced its decision, made on the basis of these criteria and scorings, of its intention to divest from four emerging market countries: Indonesia, Malaysia, the Philippines, and Thailand. The affected countries themselves sent delegations to the United States to plead with CalPERS representatives to reverse the decision. The Association for Sustainable and Responsible Investment in Asia echoed the discussions as well as all media, included leading ones such as the *Financial Times*.⁷² In the end, CalPERS partially reversed its decision regarding Philippines, readmitting the country at its May 2002 monthly meeting. However, the “CalPERS effect” has been small in the short term. The withdrawal of CalPERS from four Southeast Asian markets did not stall the Asian rally, and the MSCI Emerging Markets Far-East Index rose by 55 percent since October of last year. It had, however, a substantial effect in the small Manila’s PSE Index, which slid more than 3 percent in the three days following the CalPERS announcement. CalPERS’s precedent, on a more long-term perspective, might, however, be much more significant, pointing to a rising trend.

In 2002, the investment bank Lehman Brothers and the consulting firm Eurasia Group created a joint venture in order to combine economic investment research with political indicators of governance. The joint venture produces a monthly Lehman Brothers Eurasia Group Stability Index (LESGI) and accompanying country reports. It is developing an index proposing an analytical framework, which generates country stability ratings for global emerging-market countries and ranks countries according to relative stability.⁷³ Ratings are expressed on a scale of 0 to 100, with higher numbers corresponding to higher country stability, and based on a range of criteria including “efficient state institutions,” “government effectiveness,” “high degree of political institutionalization,” “high degree of political legitimacy among the population,” and so on. The composite stability ratings are broken into categories: maximum stability (80–100), high stability (60–80), moderate stability (40–60), low stability (20–40), and failed state stability (0–20). Once again, political governance appears included in an initiative confirming the increasing trend of interests not only for corporate governance but also for political governance issues in the emerging markets’ financial community.

Conclusions

The impact of the globalization of ideas is not particular to France, and France might be far away from the United States in terms of socially responsible investment or corporate responsibility, particularly in emerging countries. In France, however, the impact has been all the greater in that it has taken place in parallel with the

globalization of capital and of the markets in which French firms operate. In the same way, humanitarian values and corporate social responsibility have seen their importance magnified in that they overlap with the global strategies and interests of French businesses. It was thus easier to convince French firms of the need to open up to a new approach, drawn from Anglo-American precedents, and this approach's encompassing social, environmental, and human rights responsibilities. In sum, values have begun to influence the definition of interests, and a social construct of economic reality has increasingly taken shape since the end of the 1990s.

In regulatory terms, the heart of the issue lies at the intersection of the private sector and the public realm. The private market of virtue incites and encourages French capitalism and its most effective firms to adopt new codes of conduct. This contagious phenomenon, spread via the market, has until now progressed relatively easily, and without undue involvement by the state. However, now—as this new approach to management spreads and the media increasingly focuses on these issues—the French state finds itself compelled to react. The late return of the state into a domain that should have been one of its prerogatives all along, the law, is somewhat embarrassing. Given the changing context, the Ministry for Foreign Affairs should have been more discriminating when encouraging French investment abroad. Yet there is a considerable gap between the principles guiding French foreign policy and the concerns of economic actors regarding human rights. In a number of instances, and for reasons that are both political (the affirmation of French sovereignty) and economic (the conquest of markets neglected by American leaders), French leaders encourage investment in areas of the world that are highly sensitive from a human rights perspective. Therefore, the Quai d'Orsay (French Foreign Office) and the Medef (French Business Confederation) in no way inhibit investment in Cuba, China, Myanmar, or in a certain number of Arab countries whose regimes display little concern for human rights.⁷⁴ In particular, the traditional French pro-Arab foreign policy, as illustrated by the sale of a nuclear plant to Iraq during the 1980s, has led them to ignore this norm.⁷⁵

Many French diplomats believe that human rights should not to be taken into account in framing foreign policy.⁷⁶ Taking human rights into consideration would create an obstacle to the decision-making process and could hamper the interests of major French groups. The Total Fina Elf case serves as an illustration. Total is able to be active in countries where its direct competitors, notably North American, are constrained by their national administrations. While oil firms such as the British company BP, for example, which has significant assets in the United States, are relatively cautious in their international activities, Total has no such constraints (Total Fina Elf keeps a low profile in the United States, except for its chemical activities, which are largely unknown to American consumers). In Myanmar, for example, Total has been relatively free to operate. However, U.K. policy, dating back to the time of John Major's government, differs in that the U.K. government has the right to ask British companies to withdraw from controversial countries, as was the case of the British oil producer Premier in Myanmar.

The regulatory task is somewhat easier for the Ministry of the Economy, and it is worth noting that, in this respect, it is gaining influence over the Ministry of Foreign

Affairs, which started only recently to increase its interest and involvement on these issues.⁷⁷ Certain national commercial regulations thus echo new ethical concerns, such as the law on New Regulations for Business (NRE), enacted in July 2001, under which businesses must undertake social and environmental reporting, or the law passed in May 2001 that obliged CAC 40 listed companies to issue social and environmental reports.⁷⁸ Moreover, the recent increase in initiatives such as awards for the quality of environmental information reported by French firms attests to a growing interest for these issues. European integration could encourage French decision makers to take further steps. Given that European Commissioners such as Chris Patten and Pascal Lamy are promoting the inclusion of social, environmental, and human rights concerns in European external relations, it is probable that ethical business practices will find a place in the European approach as well.

The new regulatory framework reflects the orientation already taken by some of the most important nationalized French groups. Many of them—EDF-GDF, the RATP, SNCF, La Poste, CDC, Crédit Agricole—have been willing to include human rights in their agenda. Do these last examples signify a self-subversion of our work?⁷⁹ As we have shown, a significant presence in the United States, combined with a significant holding by U.S. investors of their capital, tends to induce firms to adopt “socially responsible” behavior. Nonetheless, there are many counterexamples of firms that are not listed on the stock market (because they are nationally held) and that have no strong position on the U.S. market, yet that have complied enthusiastically with this norm. A great many state companies, perhaps because their activity and their *raison d’être* are linked to “public service” and to the idea of a “common good,” have been very active on the social and environmental front. Corporate responsibility represents a natural evolution of their public service mission. It is one of the paradoxes of the spread of these norms that large nationalized groups have seen fit to draw on ideas created in the private sector and adapt them to their own public missions.

Thus even a strongly centralized state, like France, can see its structures and institutions challenged by the market-driven transnationalization of ideas. This market-based contagion must, sooner or later, provoke a state reaction—a reaction that is increasingly urgent in that not just activists, but ordinary citizens as well, are engaged in pressing these themes. A public initiative of virtue-based regulation of the marketplace is being put into place via the private and transnational spheres, which in time could encourage state reform. European integration makes this all the more likely.

Notes

1. Although there are many general publications promoting the idea of corporate responsibility, sociological and economic interpretations based on empirical studies of the phenomenon are much rarer. See Elliott and Freeman (2001), Spar (1998, pp. 7–12), and Santiso (2002).
2. See Mosley and Uno (2002).
3. See Finnemore and Sikkink (1998, pp. 897–917).

4. A common inspiration, more or less implicit, informs thinking on these questions: Becker (1963). For a study on the international impact of these activists see Sikkink and Keck (1998).
5. Many studies are devoted to the role of norms and international norm building. See Klotz (1995); Price (1995, pp. 73–103). A more recent study seeks to understand the development and the imposition of certain normative ideas, notably regarding violence: Ward (2001).
6. Few works examine this aspect of the construction of international social reality; see O'Brien et al. (2000).
7. During the 1970s, Milton Friedman took an unequivocal position in this debate, rejecting the basic premises of corporate responsibility. Friedman (1970, pp. 122–6). Following one line of argumentation developed by Friedman, one can argue the French multinationals, which are latecomers but largely involved in developing countries, could very well incur the objection of expressing a disguised kind of neocolonialist attitude and protectionism. Developing countries, such as China, do not share the same views on what is socially responsible and what is not, or on what should be human rights.
8. The first affair concerned the merger of American Can and Pechiney Usines Culmann. In the second case, Elf was brought before a California court in connection with its activities in Myanmar and its collusion with the military junta there.
9. See Colonomos (2001).
10. See Schrage (2003).
11. See Baziler (2000).
12. Authors' interview with Georg Kell, United Nations, October 2001, and Michael Doyle, United Nations, January 2002.
13. See Enderleand and Peters (1998).
14. Authors' interview with Sister Nicole Reille, Paris, July 2001.
15. See Colonomos (2000).
16. See <http://www.meeschaert.com/>.
17. Authors' interview with Bernard Mazarschi, Paris, July 2001. See also <http://www.ccfid.asso.fr/>.
18. On the development of ethical funds in France and Europe, see Santiso (2001). At the end of 2001, France had about 30 ethical funds and was thus beginning to catch up to the European champions of ethical investment—the United Kingdom (54 funds) and Sweden (42) (the United States has 175).
19. See CSR Europe (2003). The European SRI retail market is estimated to be worth 12.2 billion, while the European SRI institutional market represents 336 billion. The financial community sees a direct link between nonfinancial risks and shareholder value: eight out of ten fund managers and analysts believe that the management of social and environmental risks has a positive impact on a company's market value in the long term. The view is echoed by the companies themselves: investor relations officers in particular think that good social and environmental performance in the long term influences a company's brand and reputation (69 percent), economic performance (46 percent), and market value (36 percent).
20. See Risse, Ropp, and Sikkink (1999).
21. UNCTAD (2000, 2001).
22. See Gestrin, Knight, and Rugman (2000).
23. See Van Tulder, Van den Berghe, and Muller (2001, p. 65).

24. See Chaumeton, Coldiron, and Rosenberg (1999).
25. See Benaroya and Bourcieu (2000a, 2000b).
26. There is a considerable body of work that analyzes the work of experts in international relations and designates their function by the name *epistemic community* (see Haas 1992). Contrary to this approach, our analysis shows the diversity of values within one profession, and the formation of coalitions and the competition among different areas of expertise. Our examination of experts shows that these knowledge coalitions have a role to play in altering belief structures. Experts have a normative function, and their science is not neutral.
27. See Risse, Ropp, and Sikkink (1999) and Santiso (1998).
28. Authors' interview with Sarj Nahal, Arèse, Paris, July 2001. See also <http://www.arse-sa.com/>.
29. Part of FTSE4GOOD's profits are donated to UNICEF. Authors' interview with Marc Russell-Jones, Paris, May 2001. See also <http://www.ftse4good.com/>.
30. See <http://www.sustainability-indexes.com/>. This index, launched in 1999 but reformulated in 2001, is essentially made up of firms from OECD member states. In October 2001 the breakdown of firms in the Dow Jones Sustainability Group Index was as follows: 52 percent European, 40 percent American, and 8 percent from the Asia-Pacific region. As of October 2001, 30 licenses to use this index had been subscribed to by European managers. French firms made up 12 percent of this global index. See Dow Jones Sustainability Index "Monthly update, October 2001," Zollikon, Switzerland, October 2001. This firm produces a great deal of research on ethical themes of relevance to the firms analyzed; see for example SAM (2000, 2001).
31. See <http://www.vigeo.com/>.
32. See <http://www.coreratings.com/>.
33. See <http://www.bmjcoreratings.com/>.
34. The CDC has a subsidiary, CDC Ixis, present in 21 countries. Most of its personnel, 36 percent of a total of 5,000 employees, are based in the United States. See <http://www.cdcixis.com/>.
35. Authors' interview with Priscilla Crubezy (CDC), Paris, July 2001. The fund is managed by the asset management subsidiary, CDC Ixis Asset Management; see <http://www.cdcixis-am.fr/>.
36. Authors' interview with Jean-Pierre Sicard, November 2001. See <http://www.novethic.fr/>.
37. See <http://www.un.org/unjspf/index.html>.
38. Authors' interview with Jacques-Noël Leclerc, Amnesty Entreprises, Paris, July 2001. See also <http://www.amnesty.asso.fr/>. The British branch of Amnesty International has also undertaken a program concerning business and human rights, supported by major media campaigns and the development of a global map of British firms and their presence in controversial countries. See <http://www.amnesty.org.uk/images/business/newmap.gif>.
39. Authors' interview with Morton Winston, chair of the Business and Economic Relations Group of Amnesty International USA, Princeton, New Jersey, October 2001. See also Winston (2001).
40. Authors' interview with Michel Le Net, Cercle d'Éthique des Affaires, Paris, July 2001.
41. See Coeurdray (2000).
42. Authors' interview with Sylvain Lambert, PricewaterhouseCoopers, Paris La Défense, July 2001.
43. FTSE4GOOD, a "socially responsible" index, selects the firms to be included by screening them on several criteria. Firms operating in certain sectors such as nuclear energy, the arms

- industry, or tobacco products are automatically excluded. The firms that are retained are then graded according to three other criteria: the environment, human rights, and stakeholder relations. Most French firms are excluded on the basis of this last criterion (21 firms), next on environmental grounds (19 firms), and last for human rights reasons (10 firms).
44. Arèse's ASPI Eurozone Index (which, since its creation in June 2001, has focused on social and environmental criteria, but which will be extended to look at human rights questions) contains, for its part, a large number of French firms (around 40, or nearly 35 percent of the total). It covers only continental Europe, thus U.K. firms are not included. Geneviève Ferone, Chairman of Arèse, "ASPI: Arese Sustainable Performance Indices," Scott Stark, managing director of Stock Indices, Dow Jones & Company. and Didier Davydoff, Chairman IEM Actuarial, "ASPI," Paris, Juin 2001. <http://www.arese-sa.com/Indice/>.
 45. There is only a partial overlap between the Dow Jones and FTSE ethical indexes. The French firms in the Dow Jones ethical index include Michelin, Société Générale, Saint Gobain, Lafarge, Aventis, AGF, TF1, L'Oréal, ST Microelectronics, et Atos Origin., only four of which also figure in FTSE4GOOD.
 46. Similarly, the number of French firms that are members of international bodies such as the World Business Council for Sustainable Development is limited to half a dozen (Aventis, Lafarge, L'Oreal, Michelin, ST Microelectronics, and le groupe Suez). See <http://www.wbcds.ch/>.
 47. Benaroya and Bourcieu (2000b).
 48. See Transparency International (2002).
 49. See Katzenstein (1996).
 50. See Snyder (2003).
 51. Nadelman (1990).
 52. Pava and Krausz (1996) Available at <http://www.business-humanrights.org/Chapter1.htm#1.3>.
 53. John Stuart Mill said ". . . utilitarian moralists have gone beyond almost all others in affirming that the motive has nothing to do with the morality of the action, though much with the worth of the agent. He who saves a fellow creature from drowning does what is morally right, whether his motive be duty or the hope of being paid for his trouble. . . ." (1910, pp. 23–4).
 54. Examples of non-SRI businesses that are very profitable also abound, which counterbalances any blind faith in the profitability of virtue. As pointed by *The Economist* in its November 1, 2003 edition, some ethical funds, such as the IPS Millennium Fund, lag behind "Vice Funds" or "Socially Irresponsible Funds" quoted in the Dow Jones industrial average or in the NASDAQ composite index. Vice Fund in particular, a \$7 million portfolio that invests almost exclusively in stocks associated with these goods and services, has flourished since it was launched in 2002. See Bauer, Koedijk, and Otten (2002); on Vice Funds, see Ahrens (2004) and, in particular, *The Vice Fund*, available at <http://www.vicefund.com/>.
 55. For empirical research on the financial performance of ethical funds, see Bauer, Koedijk, and Otten (2002).
 56. Ludmila Dimtcheva, Gordon Morrison, and John Marsland, *Boxing against green shadows*, Commerzbank, 2002.
 57. See <http://www.vicefund.com/>.
 58. "Le risque éthique suivant," *Nouvel Économiste*, 29 June 2001, pp. 38–40.
 59. See above regarding the conversion of NGOs to cooperating with transnational corporations. See also Enderleand and Peters (1998).

60. Authors' interviews with Antoine Bernard, Paris, March 2001. See also FIDH (2001).
61. Authors' interviews with Isabelle Chebat, Anne-Christine Habbard, and Marie Guiraud, Paris, May, June, and July 2001. One can also remember that the main goal of the French post office should be to shorten the delivery time of the mail and make it safer for its clients. The core competencies of a business company should not be forgotten in favor of a too-exclusive dedication to human rights.
62. On business and human rights, see <http://www.business-humanrights.org/>; <http://www.amnesty.org.uk/business/>; and the maps developed by Amnesty International UK and The Prince of Wales International Business Leaders Forum, which use a sample of 129 major companies that have significant investments in 34 countries where poor human rights records presents risks to business (Amnesty International and The Prince of Wales International Business Leaders Forum, CSR Europe 2001).
63. See, for example, CERES activism on environmental issues related to oil industry, <http://www.ceres.org/publications/main.htm#ex>.
64. See KPMG (2002). See also www.globalreporting.org.
65. See International Finance Corporation, Sustainability and Ethos Institute, *Developing value: the business case for sustainability in emerging markets*, available through Sustainability at www.sustainability.com/store.
66. See <http://www.storebrand.com/>; <http://www.cordius.be/>; <http://www.npi.co.uk/>; <http://www.sam-group.com/e/main.cfm>; <http://www.friendsis.com/AboutFIS/SociallyResponsibleInvesting>; and <http://www.morleyfm.com/frames1.htm>. On ethical funds information in the United Kingdom, see <http://www.eiris.org/>; and in France, <http://www.novethic.fr/novethic/site/index.jsp>. For ethical indexes producers see for example FTSE, http://www.ftse4good.com/frm_home.asp; or Dow Jones Sustainability Index, http://www.dowjones.com/corp/index_directory.htm.
67. See <http://www.fidh.org/fidh-en/index.htm>.
68. See Ethos Institute, *Ethos Indicators and Corporate Social Responsibility. Ethos corporate responsibility indicators*, Sao Paulo, Ethos Institute, 2001 and 2000; Ethos Institute, *Responsabilidade das empresas. Percepção do consumidor brasileiro*, Sao Paulo, Ethos Institute, 2001. See <http://www.ethos.org.br/>.
69. See <http://www.lcvco.com.br/english/index.htm>. See also the Brazilian Institute for Corporate Governance, <http://www.lcvco.com.br/english/index.htm>. For Novo Mercado, see <http://www.novomercadobovespa.com.br/>.
70. See Environnics International (2002).
71. See CalPERS, *Report for the Members of the Investment Committee*, February 2002. See <http://www.calpers.ca.gov/invest/emergingmkt/country.htm>; and <http://www.wilshire.com/>.
72. See <http://www.asria.org/>.
73. See <http://www.legsi.com/>.
74. See Colonomos (2000).
75. It is interesting to note that some ethical rating agencies, such as the Belgium one Ethibel, has started to rate also government bonds according to selective socially responsible criterias; see <http://www.ethibel.org/>.
76. Regarding the activism of investment funds and NGOs concerning firms investing in Myanmar, see the very complete report on the question prepared by the association Terra Nova Conseil, SRI In Progress no. 4, available on the website <http://www.terra-nova.fr/SRI-in-progress-Archives.htm>. The case of French oil firms was the subject of a French Parliamentary Report in 1999: Aubert, Brana, and Blum (1999).

77. See the report of Béatrice Pouligny and Javier Santiso, *Entre éthiques et économie: Enjeux, normes et acteurs*, report of the International Conference co-organized by the French Foreign Affairs Ministry and CERI-Sciences Po, Paris, December 2001, available at http://www.france.diplomatie.fr/education/recherche/coll_ethique/; and for the French Ministry of Finance and Economics, see in particular Secrétariat d'Etat au Commerce Extérieur, *Echanges et éthique*, Paris, DREE Dossiers Les enjeux économiques internationaux, Secrétariat d'Etat au Commerce Extérieur, February 2002, also available at <http://www.commerce-exterieur.gouv.fr/publications1/pdf/ethik.pdf>.
78. A similar law, the Sarbanes-Oxley Act (the “corporate responsibility act”) was enacted in the United States in 2002. It focuses on transparency and requires all chief executives and chief financial officers to certify the accuracy and veracity of financial reports. The SEC also requires listed companies to disclose whether they have a code of ethics. The juridification of transparency and honesty follows different national paths; however, the trajectories and the core values of those processes are comparable. Powerful nonstate actors have initiated the formation of a global market of virtue that has induced in the context of globalization some interesting changes in Europe. European lawmakers have been willing to respond to this process driven by the private sector.
79. By *self-subversion* we are referring to Hirschman’s recommended self-subversion exercises, which consist of refuting one’s own generalizations: “skepticism toward *other* people’s claims to spectacular theoretical discoveries is, of course, not a particularly noteworthy trait. It is however more unusual to develop this sort of reaction to *one’s own* generalizations or theoretical constructs” (Hirschman 1995).

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Annex 1. List of interviewees

The authors would like to thank their interlocutors for the time they spent and for all documentation received (those marked with an asterisk).

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Natural Resources, Development and Conflict: Channels of Causation and Policy Interventions

PAUL COLLIER

Many governments of developing countries receive large revenues derived from taxation of natural resource rents. The developmental consequences of these revenues have often been negative and are clearly far below their potential. This paper focuses on how developed-country governments could assist recipient governments to make better use of their own resources. It first considers six routes by which natural resource rents create problems: rent-seeking, encouraging secession, financing rebellion, the detachment of government, Dutch disease, and exposure to shocks. It then proposes four remedies that address these problems: revenue transparency, the scrutiny of expenditures, the tracking of commodity flows, and the provision of cushions for shocks.

Natural resources are distributed randomly over the surface of the earth. As with any random distribution, the outcome is unequal. Some countries have few or no valuable natural resources; others have many. Abundance brings opportunities for enhanced income, and historically resource endowments such as coal and iron ore were often critical as triggers of development. However, at least over the past four decades, resource abundance has often been associated with problems of unfulfilled economic growth potential and high risks of large-scale violent conflict. That good fortune should be turned into a problem is evidently avoidable. Recently the international community has become interested in whether there are feasible collective actions that could significantly mitigate this problem. In identifying possible ameliorating interventions, it is useful to consider the reasons why natural resource dependence might have adverse effects. Of course, the remedy for a problem need not be to address its cause; nevertheless, without understanding the causes we can have little confidence in proposed remedies.

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Annual World Bank Conference on Development Economics—Europe 2004

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The Association Between Natural Resources and Poor Outcomes

The association between natural resources and the risk of civil war has recently been explored through both econometrics and case studies. The case study evidence is more appropriate for understanding the causal mechanisms that are at work, while the econometrics is more appropriate for establishing whether there is any causal relationship to be understood.

The first econometric study to find a relationship between natural resources and the risk of civil war was Collier and Hoeffler (1998). In the latest version of our work (Collier and Hoeffler 2004a) we analyze 54 large-scale civil wars that occurred between 1965 and 1999. We find that a higher share of primary commodity exports in GDP significantly and substantially increases the risk of conflict. For example, if we compare countries with 10 percent and 25 percent of their GDP coming from natural resources, holding other characteristics constant at the mean for low-income developing countries, the risk of a civil war in the subsequent five years rises from 11 percent to 29 percent. We investigate whether there are significant differences between groups of commodities and find that oil is the only one that is distinctive. High levels of oil dependence are even more likely to be associated with conflict than similarly high levels of dependence upon other commodity exports. It should be stressed that natural resource dependence—or indeed the wider concept of primary commodity dependence—is far from being the only factor that is statistically significant in the risk of conflict. In particular, the level of per capita income strongly influences the risk of conflict. At high levels of per capita income the risk of civil war is negligible with or without natural resources. Hence, societies such as Norway and Australia, which are highly dependent upon natural resource exports but are also rich, do not face any significant risk from their natural resource endowments.

Several studies have investigated the relationship between natural resources and the *duration* of conflict as distinct from the risk of its initiation. Fearon and Laitin (2003) find that resource dependence increases the duration of civil war. Collier, Hoeffler, and Soderbom (2004) get a similar result. Interestingly, they can distinguish between initial dependence and the effect of the world price of the commodity exports during the conflict. The advantage of this is that the world price is almost entirely exogenous to an individual conflict and very easily observed, so it is a particularly reliable causal variable. Unsurprisingly, we find that the effect of the price depends upon the initial level of resource exports. Taking as an example a fairly high level of primary commodity exports of 30 percent of GDP at the start of the conflict, a subsequent and sustained increase in the world price of the export by 10 percent would extend the duration of the conflict by 12 percent.

The association between natural resource dependence and disappointing growth performance is also supported both by econometric evidence and case studies. The best known of the econometric studies is Sachs and Warner (2001), which finds that natural resources reduce growth. There are many good case study collections. A particularly good analysis of oil economies is Gelb (1989).

Routes from Natural Resource Dependence to Development Problems

By their nature, these econometric studies are usually not well suited to explain why these associations are found. In this section I suggest six causal mechanisms, relying primarily upon a mixture of theory and case study evidence. Ross (2003) and Isham et al. (2003) provide excellent analyses of this evidence.

Rent-Seeking of Honeypots

One obvious potential explanation is that natural resources constitute a valuable honeypot over which interest groups might fight. Surprisingly, the evidence for this is relatively weak. If this were an important explanation we might expect that it should apply also to aid, and indeed one economic theorist of conflict, Grossman (1992), has proposed precisely this relationship. Some governments receive very large aid inflows, and so to gain access to the aid it should be advantageous to capture the government. When aid is instrumented and introduced into the Collier-Hoeffler model of conflict risk, it has no significant direct effect. (Indirectly, aid reduces the risk of conflict through its effect upon economic growth; see Collier and Hoeffler 2004c.) Nevertheless, it may be that natural resources are a more evident source of rent than aid.

Some case studies point to the importance of the pure rent-seeking motive in particular instances. In Fiji an attempted violent coup d'état was launched by a businessman who was the local representative of a private American company seeking a logging contract. The coup came shortly after the contract had been awarded to a different company. In Sierra Leone, the leader of the RUF (Revolutionary United Front of Sierra Leone) rebel group was offered the vice-presidency of the country in a peace deal, but refused until the offer was changed to include his chairmanship of the board controlling diamond-mining interests. Despite attempts in both these cases for the rebel leaders to put a different interpretation on their actions, the conclusion that rent-seeking of natural resources played a substantial part in motivating their actions is surely unavoidable.

It is often difficult to distinguish between purely criminal predation and that which is intended to fund a political objective. Sometimes, indeed, the objective can change over time. For example, the Revolutionary Armed Forces of Columbia (the FARC) began as a rural radical political movement, but is now surely predominantly a drugs operation. Presumably, as drug revenues became increasingly central to what the organization was doing, idealists motivated by ideology became less likely to join, and criminals attracted by wealth and violence became more likely to join. Similarly, in the Delta region of Nigeria, a movement that was initially protesting against injustice and environmental degradation relatively rapidly evolved into gang warfare between villages for the control of the right to run protection and kidnapping rackets, and by 2004 had reached a scale where its leaders were in a position to negotiate with the Nigerian state.

Making Secessionist Movements Credible

A variant on the honeypot hypothesis for which there is much better evidence is that natural resource abundance promotes violent secession. Just as the distribution of natural resources between countries is not equal, so within favored countries some locations are favored more than others. The people living in the vicinity of the natural resource endowment have an obvious economic interest in claiming the resources for themselves to the exclusion of their fellow nationals. Since natural resources are almost everywhere treated as public rather than private property, such a claim for local public ownership is tantamount to a claim for independence. Nation states are usually recent agglomerations of previously distinct political entities, and this process of assimilation has often been contested. Hence, in many situations, natural resources will be located in regions where some political groups—albeit often on the fringe—are already claiming autonomy.

The presence of natural resources enables such groups to add a credible economic argument to what is otherwise likely to be a largely romantic appeal. An example of this transformation is the (nonviolent) rise of Scottish nationalism, which can be precisely dated to between the 1970 and 1974 elections. At the former election, as in all previous elections, the Scottish National Party won only a tiny share of the vote and gained only a single seat in parliament. In the two 1974 elections its vote rose to 30 percent. The transforming event that brought about this change was surely the dramatic rise in the world oil price in late 1973 as a result of the Yom Kippur war. The oil off the shores of Scotland was suddenly seen as valuable: the party campaigned on the slogan “It’s Scotland’s oil.” Indeed, speculation at the time may well have inflated its imagined value far in excess of its true value. The Organization of the Petroleum Exporting Countries (OPEC) appeared to have the power to raise the price almost without limit, and the Shah of Iran began speaking of oil as “the noble fuel,” giving oil endowments an aura of unrivaled affluence. A similar oil-influenced secessionist movement, this time violent, was Biafra in Nigeria. Biafra’s move to violent secession occurred after fiscal decisions to treat oil revenue as a national asset. Although there were ethnic tensions in Nigeria, virtually all African countries have several ethnic groups. It is surely striking that the ethnic groups in Africa that have attempted to secede have usually been resource rich, such as in Biafra and Katanga.

Usually, ethnic groups in regions that are poorly endowed do not press for secession, for the obvious reason that they would be worse off. Where romantic secessionists nevertheless manage to build a politically powerful demand for secession—perhaps because they have an unusually charismatic leader—the other regions of the country may decide to grant secession peacefully since it is not worth violent opposition. Such was the case in Czechoslovakia, where the poorer region of Slovakia was permitted by the larger and richer Czech region to secede peacefully.

Collier and Hoeffler (2004b) analyze secession statistically. First, we rely upon the political science classification of civil wars into secessionist versus ideological wars. This is not an immaculate distinction, depending to an extent upon the ostensible objectives of rebel groups. However, given this classification, we test whether

primary commodity exports have differential effects on the risk of the two types of civil war. We find that primary commodity dependence indeed increases the risk of secessionist war more than it increases the risk of an ideological war. We then focus specifically on oil and find that if an oil-exporting country experiences a civil war it is almost certain to be a secessionist war, in contrast to non-oil exporters, which often experience ideological civil wars.

Oil may be distinctive in its romantic connotations of affluence. For example, the Free Aceh Movement (Gerakan Aceh Merdeka or GAM), which has been attempting to achieve secession of Aceh from Indonesia, has used the analogy of Brunei in its propaganda, claiming that the population of Aceh could be equally rich. This is a massive and presumably deliberate exaggeration, but it may well appeal to the popular imagination.

Financing Rebel Groups

A further way in which primary commodities in general and natural resources in particular can increase the risk of civil war is through their vulnerability to predation by rebel groups who need finance to pursue violence. Rebellion is usually expensive. Recruits are usually full time and so need to be housed, clothed, and fed. More particularly, armaments are expensive and tend to wear out rapidly in combat conditions with ill-trained fighters. Most would-be rebel groups simply cannot finance their activities on a scale beyond minor acts of terrorism. Natural resource predation is by no means the only source of finance for a rebel army, but where natural resources abound in rural areas they are uniquely vulnerable because they are difficult to defend, lucrative, and immobile. The task of extorting rents from rurally based natural resource industries also requires a technology of violence that is very similar to that which rebel groups need for warfare in any case. This is in contrast to urban-based extortion rackets, where substantial levels of armaments beyond basic handguns would be an encumbrance rather than an asset.

The most spectacular examples of natural resource-funded rebel groups come from diamonds. UNITA (National Union for the Total Independence of Angola) and the RUF both grew to remarkably big organizations—at one stage UNITA is believed to have had 150,000 men. Such large standing armies are hugely expensive and depend upon correspondingly large resource predation businesses. Alluvial diamonds are particularly well suited for predation, because the extraction process is sufficiently simple that it does not require large corporations. Thousands of small individual operators are in a much weaker position to defend themselves than large companies, so that the rebel organization is easily able to intimidate and informally tax producers. Timber is also technologically suited to rebel predation, as with the Khmer Rouge in Cambodia. Where technology requires large companies, as in the case of oil, rebel groups can still be predatory, but the natural style of the predation changes. Companies are threatened with sabotage of pipelines, and their employees are kidnapped and ransomed. However, it is becoming increasingly difficult for multinational corporations to make such payments to large rebel groups.

A related phenomenon is “war booty futures” (Ross 2003). Here the rebel group actually needs a large company to which it can sell the highly risky prospect of extraction rights contingent upon subsequent rebel victory.

Detaching the Government from the Electorate

Historically, representative government arose because states needed to raise large revenues in order to fight wars and found that conceding some degree of representation to taxpayers was the necessary price of popular compliance in taxation. A common political economy argument, applied to both natural resource revenues and aid, is that by reducing the need for taxation they also reduce popular scrutiny of government. People are less concerned about the misuse of public money if they have not been taxed in order to generate it. The power of this argument depends upon the sophistication of the electorate. In principle, the opportunity cost of misused public money is the same regardless of its source. However, governments that misuse public funds can more easily disguise the extent of natural resource revenues than they can disguise taxation. It may also be easy to co-opt the relatively small groups of informed potential critics of natural resource misuse.

A variant on this “detachment” argument is that resource rents might provide the government with a different option of retaining support. My current research with Hoeffler finds that natural resource rents systematically subvert the functioning of democracy. Whereas in the absence of natural resource rents democracies outperform autocracies, in the presence of large rents democratic performance so deteriorates that autocracies outperform them. Perhaps large resource rents enable leaders to maintain power through private patronage rather than the public goods that democracy would otherwise force them to supply.

To the extent that the government is more detached from electoral concerns if it has substantial natural resource revenues, this is both bad in itself and a potential cause of rebellion, including secession. The perception that resources are being embezzled by a corrupt elite is at the least convenient for rebel groups. In practice, there is seldom a single motivation for rebellion, and the perception of government corruption can be a contributing factor even if it is not by itself a significant trigger of violence.

Dutch Disease

Thirty years ago the academic economics community made much of the problem of Dutch disease—the tendency for natural resource exports to appreciate the real exchange rate and so make the production of other tradable goods less competitive. As described, the response is simply an efficient resource reallocation—resources move into the nontradable sector, producing the goods that the now-richer society demands but that cannot be supplied through imports. To be a “disease,” one or other of two additions are commonly invoked. The first is that the real appreciation is temporary but that the implied intertemporal path of relative prices is insufficiently

recognized by private agents. As a result, resources are lured into the nontradable sector, where they are subsequently marooned once prices revert. Excessive adjustment costs are incurred. The second addition is to suppose that externalities such as some learning-by-doing are more substantial in the nonnatural resource tradable sector, so that growth rates can be reduced.

The same critique is sometimes made of aid, since indeed it has the same effect of appreciating the real exchange rate. The effect of aid on growth has been extensively debated. Collier and Dollar (2002) use a reduced-form approach that controls for policy, and so in principle controls for the detachment effect that both aid and natural resources are also likely to have in common. They find that there are diminishing returns to aid that in turn depend upon policy. They term the point at which the effect on growth turns negative the *saturation point*. When policies are reasonable, aid contributes to growth up to levels of around 20 to 30 percent of GDP. When policies are poor, the saturation point occurs when aid is around 10 to 15 percent of GDP. Since natural resource revenues are closely analogous to aid, at least for a given policy environment, we would expect that this range of absorptive capacity would apply to both aid and natural resource revenues. The diminishing returns that drive the economy to the saturation point, beyond which aid—and by implication natural resources—actually reduces growth, might well reflect Dutch disease. That is, such resources might have a beneficial effect that is subject to the normal process of diminishing returns, and an adverse effect—Dutch disease—that eventually becomes preponderant.

Many resource-abundant countries are indeed likely to breach the “saturation point,” being in the range over which, at the margin, natural resource revenues have a net adverse effect. This is partly because revenues are sometimes very high—in excess of 30 percent or even 40 percent of GDP, as in Nigeria. However, it is also because policies are often very poor, perhaps because of the detachment effect, so that the saturation point sets in at relatively low levels of revenue. Indeed, dynamically there may be a trap. With poor policies and high levels of natural resource revenue, the nonnatural resource part of the economy is likely to have slow or even negative growth, and so diminish relative to the natural resource component. It is then in a weak position to lobby for reform. Such, for example, has been the fate of the Nigerian economy, where the non-oil economy has been virtually stagnant for a long period. Hence whether Dutch disease is a problem warranting attention is likely to depend on both the scale of the resource revenues and on the policy environment.

Exposure to Shocks

The final route by which natural resources, and indeed other primary commodities, can be problematic for development is through their exposure of the economy to price shocks. Large negative shocks tend to produce episodes of severe economic contraction that compound the direct loss of income. Such episodes directly increase poverty that results from the fall in export income. They also tend to reduce the growth rates of output over the medium term (Collier and Dehn 2001). Over and

above the income and output losses, Hoeffler and I find that episodes of rapid economic decline substantially increase the risk of civil war. Even positive shocks sometimes destabilize economic management and so are missed opportunities. The subject is taken up further in the paper by Guillaumont and others, the next article in this volume.

International Policy Responses to These Problems

The six routes reviewed in the previous section, whereby the contribution of natural resource endowments to development might be disappointing, may not all apply in any particular context. However, they may each be sufficiently likely to apply in enough contexts to be a cause for international concern. Yet they are very different from one another. Evidently, no single policy intervention will address all six routes simultaneously. Therefore, if all are indeed credible routes, as seems likely, what will be required is a package of interventions that collectively addresses all of the routes. In the absence of a package, interventions that address only a single route may have limited effect. If one adverse channel is closed, this may increase the opportunities for the other channels to take effect.

I now consider the components of a feasible package. They are addressed in more detail in Collier et al. (2003) and Bannon and Collier (2003). Although there are six routes, some interventions address more than one, so that I think an effective package need have only four components. These are: revenue transparency, expenditure scrutiny, commodity tracking, and reduced exposure to price shocks. I now consider the first three in turn; the fourth is dealt with by Guillaumont and others in the next article in this volume.

Revenue Transparency

Revenue transparency is useful in several respects. First, it is evidently a necessary input into scrutiny of expenditures—unless revenues are known, it is pointless to ask how they are used. A corollary of this is that secrecy of revenues will dampen efforts to scrutinize expenditures. In terms of the six routes discussed above, transparency is necessary to address the problem of detachment. In addition, transparency can reduce the problem of secessionist pressure. Recall from the example of the GAM in Aceh that rebel movements will deliberately attempt to exaggerate the value of natural resource revenues. Far from keeping the population quiescent, secrecy is likely to facilitate such exaggeration. Transparency alone is not sufficient to counter such propaganda, for many governments of developing countries are not trusted by their populations to provide accurate information, especially on such contested matters. The obvious counter of a rebel group such as the GAM to government information campaigns showing lower oil revenues than the group has implied is simply to accuse the government of embezzlement. Hence, any system of transparency must also be credible to the domestic population.

The nongovernmental organization (NGO) Global Witness has led efforts to encourage transparency, arguing for reporting by individual resource extraction companies on a compulsory basis. Although this has some attractions, it also has disadvantages. First, it is politically difficult to achieve international action on the basis of compulsion: some companies may see it as a breach of confidentiality, and the governments that receive natural resource revenues may see it as yet another developed-country insinuation that they are corrupt. Second, if companies were to report using different accounting years, or different concepts of revenue, it would be impossible to arrive at a credible aggregate figure: individual reporting alone could, by providing too much disaggregated information, paradoxically provide too little information for effective scrutiny. The approach was also in danger of missing the key role played by national oil companies. An alternative approach, which has been suggested by the U.K. government, is for companies to be required by the government of the natural resource-rich country to report on a confidential basis to the World Bank, which would then publish aggregate information. This has several advantages. First, the host government would have the choice as to whether to make reporting a requirement or not. Hence, it would not itself be the subject of compulsion but would rather be a critical participant in producing transparency.

Once a “template” for revenue reporting is established, governments that required companies to report along the lines suggested in the template would be signaling their commitment to honest governance. This ability to signal would itself be most useful to governments that face a problem of poor reputation—it provides a mechanism whereby they can live down the past. Second, the government would require all companies, including national companies, to report. This would avoid the problem that, were the reporting requirement to come from OECD countries, it would apply only to some companies and so would disadvantage them—in turn making OECD countries reluctant to impose such discriminatory requirements. Third, by introducing an informed intermediary such as the World Bank, the reported data can be required to conform to some standard concepts. This can reduce the problem of misleading reporting, and can also facilitate meaningful aggregation. The intermediary can then in turn report the aggregated data in a form that is sufficiently nontechnical to meet the spirit as well as the letter of transparency. Finally, because the government of the natural resource-exporting country would be triggering the reporting process, it would be natural for the corporate reporting to be accompanied by government disclosure of revenues received, so that claimed payments could be reconciled with claimed receipts.

Expenditure Scrutiny

Transparency of revenues is itself an input into the scrutiny of expenditures. Without transparency of revenues, scrutiny of expenditures loses much of its point, but transparency is not in itself scrutiny. Scrutiny is predominantly a domestic process: this is because citizens and their representatives are the legitimate beneficiaries of public revenues. The donor community may also have a legitimate interest in scrutiny, to

the extent that it is putting resources into the country, but this is distinctly secondary to the domestic interest. Whenever scrutiny depends solely upon the complaints of foreign governments and international agencies, it will be easy for offending governments to deflect the exposure using the tried and tested defensive strategy of nationalism.

The purpose of the scrutiny is to establish how natural resource revenues are spent. Since revenues are fungible, this can be done only through scrutiny of the entire budgetary process. In most resource-rich developing countries, the institutions that would normally undertake such scrutiny—parliamentary committees, allied with an auditor-general office and an investigative press—are currently insufficiently effective. Building the capacity for scrutiny depends partly upon training, and partly upon a change on the part of the government toward toleration, and even encouragement, of investigation. Again, the proximate reward for such a change in behavior is greatest for those governments burdened by a poor reputation, whether with their own electorates or with foreign investors.

In some contexts institutions of scrutiny need to be established from scratch. For example, in Chad—as a result of the Chad-Cameroon pipeline—new government institutions were established, along with an ad hoc group including civil society and foreign companies. Experience to date suggests that even this ad hoc approach has been quite effective. The precise architecture of scrutiny would need to differ, country by country, depending upon what is already in place.

Between them, transparency and scrutiny would address three of the six routes by which natural resources cause development problems. First, they would curtail the contest for “honeypots” because they would curtail the ability to divert resources to illegitimate uses. Second, they would reduce the incentive for secession. Secessionist groups would no longer be able to exaggerate the scale of revenues, nor would they be able to contrast the prospect of local accrual of revenues with embezzlement at the national level. The best defense against secession is likely to be credible evidence that revenues are being used for nationally equitable expenditures such as primary education. Third, transparency and scrutiny provide at least some counter to the problem of detachment. Gradually, the population may come to recognize that natural resource revenues are indeed owned by the nation, so that how they are used is a core issue of domestic politics.

Commodity Tracking

Commodity tracking has recently been pioneered through the Kimberley process for tracking diamonds. The process is still in its infancy, and there is a need to establish how effective it is. However, if it is effective it could be scaled up to cover other commodities such as timber and oil. The primary purpose of commodity tracking is to make it more difficult for rebel groups to profit from looting valuable natural resources. Since major rebel groups, such as UNITA, the RUF, and the Khmer Rouge have used this as their primary source of revenue, there is considerable scope for using commodity tracking to curtail rebel finance. The objective is not literally to

keep rebel-looted commodities off the market, but rather to make them salable only at a deep price discount. The appropriate assessment of whether tracking is effective is therefore simply to observe the price discount that rebels need to offer. Although this is not public information, it is fairly readily available from informed participants in the industry, and so it is far easier to monitor than the actual quantity of an illicit commodity coming onto the market.

The physical tracking of commodities can also usefully be combined with information on the financial transactions that are the counterpart of their physical movement. Such integration of financial reporting systems (for which banks are responsible), and physical consignments (which are reported by customs authorities), would be relatively straightforward with modern information technology, and would greatly augment information on transparency. At present, the reporting requirements of banks are being considerably increased as a counter to corruption and international terrorism; the reporting requirements for the physical movement of commodities are also being increased, but the two have not been combined.

These tracking strategies primarily address the problem that natural resources have historically been used to finance rebel movements. By improving transparency, they also address the problems of secession and detachment—the government is seen to be attempting to curtail the illicit use of revenues.

Reduced Exposure to Shocks

This part of the package of interventions is dealt with more thoroughly in the next article in this volume (Guillaumont and others). The broad strategies for reducing the exposure to price shocks are cushioning through public or private insurance, export diversification, and—most ambitiously—reducing the price shocks themselves.

Private insurance can be obtained through hedging on international commodity markets. Governments have seldom attempted such hedging, which is itself a risky process. A major disincentive is that hedging is politically very exposed—the strategy has an approximately 50 percent chance of losing money, at least in the short term, and in this event political opponents will criticize the risk taker. It is risky because making contracts in derivatives markets is a complex form of gambling, and if public officials are permitted to engage in it they will sometimes be tempted to take risks instead of reducing them. Supervising such staff is difficult and expensive. It may, however, be possible for the World Bank to take on the management of hedging contracts—not itself entering the market, but acting on behalf of client governments and bearing the risk of staff supervision. The Bank already manages the foreign exchange positions for some developing countries, and so the management of commodity hedges appears to pose no issues of principle.

There are several options for public insurance. The Fund or the Bank could introduce concessional lending facilities, triggered by sharp declines in export prices. The donor community could channel aid in response to price shocks in the same way that it currently does for more photogenic shocks such as earthquakes and droughts. Finally, the Bank is a major creditor to both commodity-exporting countries and

commodity-importing countries. The most important commodity here is oil. Currently, debt service to the Bank by oil exporters is around \$6 billion per year, and debt service by oil importers is around \$12 billion per year. Hence, there is at least in principle the potential for these two payment streams to move in a precisely offsetting fashion, conditioned on the oil price. When oil prices were high, oil exporters would take over some of the debt service obligations of oil importers, and vice versa. The Bank would gain by reducing its default risk, and both oil exporters and oil importers would gain from less volatile net incomes.

Both diversification and the reduction in price volatility itself could be assisted by changes in OECD trade policies. At present, tariff escalation by OECD countries reduces the profitability of processing commodities in developing countries relative to resource extraction. Setting agricultural subsidies that are contingent on the world price has the effect of widening price swings. For example, when world cotton prices fell, the U.S. government increased subsidies to its cotton farmers. This further lowered the world price to cotton farmers in the Central African Republic.

Directly, such strategies obviously address the problem of price volatility. However, in combination with transparency and scrutiny they also have the effect of reducing the problem of Dutch disease. Recall that Dutch disease is best thought of in terms of absorptive capacity—how much natural resource revenue the government can use productively. In turn, absorptive capacity depends upon the quality of the policy environment. By reducing economic fluctuations and improving the effectiveness of public expenditure, absorptive capacity is increased, so that fewer countries would find themselves in the range in which real exchange rate appreciation becomes the dominant consideration.

Conclusion

Development agencies are now focusing on aid effectiveness and policy coherence. By *aid effectiveness* is meant the need to increase the impact of aid on growth and poverty reduction; by *policy coherence* is meant the attempt to align apparently disparate policies such as aid and trade, to make them all supportive of development. Natural resource revenues accruing to developing countries are far larger than aid flows, but they are analytically similar. Policy coherence demands that the international community should pay attention to raising the returns to natural resource revenues, just as it has struggled to raise the returns on aid. Indeed, the payoff to raising the returns on natural resource revenues dwarfs the effects of raising the returns on aid. Some of the actions required—such as domestic scrutiny—are similar; some are very different. But the prolonged international debate on aid effectiveness contrasts with the neglect that has prevailed until recently on *international* policy toward natural resources.

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Attenuating the Vulnerability to Price Shocks Through Aid

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The purpose of this paper is to examine what kind of global measures may be efficiently implemented to help developing countries face price shocks, avoiding past failures and taking into account the long-term trend of the markets. First, we recall the nature of the vulnerability to price shocks: this legitimates making the dampening of these shocks a reasonable goal for the development cooperation policy. Then we consider the rationality of some international schemes of insurance or of guarantee that could be implemented through international assistance for countries facing price shocks. This assistance should be provided both on a macroeconomic level, in particular through debt management, and on a microeconomic level, for instance through an insurance for the producers. The general principle underlying our proposals is that international assistance can enable developing countries to face price shocks, while taking into account the market signals, by offering a guarantee to these countries provided they respect some management rules.

The interest recently shown in global policies on natural resources and raw materials as part of an effort to improve governance and reduce conflicts is shedding light once again on the long-standing problem of the international price fluctuations that affect developing countries. This renewal of interest comes after a lengthy period during which the very idea of a global policy to deal with price shocks was out of favor, because of measures that failed to take due account of market mechanisms. During this period, the magnitude of international price shocks did not diminish—indeed it increased—and a number of countries obviously remain vulnerable to them.¹ In consequence, after two decades of agricultural market liberalization (leading to

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Annual World Bank Conference on Development Economics—Europe 2004

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the removal of marketing boards and “caisses de stabilisation”), the question of determining how the international community might contribute to dampening price shocks has once again come to the fore.

The primary commodity issue is obviously not limited to the impact of price shocks. Surprisingly enough, the latter are sometimes left out by recent works that deal with the impact of primary commodities on economic growth, which consider instead their positive effect on financial resources or their negative effect on institutions and behaviors (Easterly and Levine 2003). However, price variability appears in the recent economic literature as a factor that strongly affects the primary commodity market dynamics, through its impact on investment, inventory behavior, and production (Pindyck 2002).

Let us recall the time frame of price variations. Developing countries face three sorts of price fluctuations. In the short run (variations shorter than one year), and in many instances, insurance market instruments allow countries to hedge associated risks. However, these instruments are not readily available for all commodities and to all developing countries. There may therefore be room for a development assistance policy that would enlarge this availability or support the functioning of appropriate financial markets. This kind of assistance is the work focus of the International Task Force on Commodity Management in Developing Countries (1999). In the long run, the problem is no longer price variability, but rather the long-term decline in the relative price of commodities that are crucial to poor countries. The response to this long-term declining trend in relative prices can come only from a change in the production structure that further diversifies the economy, which is exactly what development is about. Between these two time horizons, in the medium run, developing countries remain vulnerable to year-to-year fluctuations that may result in extremely strong and costly shocks. In this paper, we focus on this latter aspect of price variability.

The purpose of this communication is to examine what kind of global measures can be efficiently implemented to help developing countries face price shocks, while avoiding past failures and taking into account long-term market trends. First, we look at the nature of price shock vulnerability. This will legitimate shock dampening as a reasonable goal for development cooperation policies. Then we consider the rationality of some international schemes of insurance or guarantee, which could be supported by international assistance to countries facing such price shocks. This assistance should be provided on a macroeconomic level, in particular through debt management, as well as on a microeconomic level, for instance through an insurance for producers. The general principle underlying our proposals is that international assistance can enable developing countries to face price shocks, while taking into account market signals, by providing them with a guarantee in exchange for their commitment to abide by a number of good practices and governance criteria.

Vulnerability to Price Shocks

It is difficult to design rational measures for dampening price shocks without inquiring about the reasons why such shocks can jeopardize development. There is clear

evidence of the negative effects of export instability on growth (see, for example, Collier, Gunning, and Associates 2000; Combes and Guillaumont 2002; Dawe 1996; Fosu 1992; Guillaumont 1987, 1994; Guillaumont, Guillaumont Jeanneney, and Brun 1999) and more generally of economic volatility on growth (Ramey and Ramey 1995). A country's vulnerability to price shocks results from three components: (1) the size of the shocks or price instability, (2) its exposure to the shocks—that is, the channels through which the shocks are transmitted to the economy—and (3) its resilience—that is, its capacity to react to, or to manage, the shocks (Combes and Guillaumont 2002). Our object, here, is not to review the determinants of commodity price instability. Instead, we recall the transmission channels of price shocks and show how, besides other factors, development assistance can contribute to increasing the resilience of the economy.

Transmission Channels of Price Shocks

Price shocks have both a microeconomic and macroeconomic impact on growth and development. On the microeconomic level and in the agricultural area, when international price instability is transmitted directly to agricultural producers, its effects are more damaging to agricultural supply when producers are poor and unable to obtain insurance. In such circumstances, farmers are inclined either to scale back their investment and innovation owing to their apprehension about using riskier techniques or, even in a period of price drops, to forgo educating their children—a rather irreversible outcome. On the macroeconomic level, unstable international prices, insofar as they lead to instability in export earnings, are also a factor responsible for real exchange rate instability—that is, instability in the relative price of tradable and nontradable goods, which occurs regardless of the nature of exchange rate regime. By disrupting signals about long-term market trends, this instability leads to poor resource allocation and, hence, to lower factor productivity.

Moreover, the impact of export earning fluctuations on the real exchange rate is not necessarily symmetric, notably owing to domestic price rigidities. An increase in export earnings during a boom period results in an appreciation of the real exchange rate and in a loss of competitiveness of tradable good sectors that are not associated with the boom (a phenomenon generally referred to as the “Dutch disease”). In a fixed exchange rate regime, the shortfall in exports earnings is usually not likely to generate by itself a real depreciation that would improve competitiveness; in a floating exchange rate regime, the nominal depreciation may be much more important than the earlier appreciation, owing to imported inflation.

The instability of export earnings also extends to public finance, which may generate serious imbalances. During expansionary periods, the growth of tax receipts, as well as an easy recourse to external borrowing, lead to an increase in public expenditures. This results in public deficits during periods of declining prices. These deficits are in turn difficult to absorb, owing to the downward rigidity of expenditures, especially those on wages and salaries. As a result, inflation and public indebtedness become a chronic problem.

Among public expenditures, the debt service is likely to be most affected by commodity price shortfalls. The recurrent payment incidents in sub-Saharan African countries are easily explained by the size of the shocks compared with budgetary resources. The heavily indebted poor countries (HIPC) initiative and its bilateral complements admittedly aim at restoring long-term debt sustainability, but they do so in a framework that does not take into account the risk of transitory but major price shocks, which are likely to lead to a severe liquidity crisis. In the occurrence of such a crisis, without appropriate support, the country may not be able to meet its debt service obligations and may be subject to sanctions. External financing is then interrupted, and the country's rating on financial markets deeply and durably deteriorates. The ensuing recession is likely to transform the initial liquidity crisis into a new solvency crisis.

Besides debt service, public investment constitutes one of the most flexible components of public expenditures. Its instability, induced by that of exports, results in a lower average rate of return, because of the low return of many investments launched in boom periods, compared with the higher return of those given up when shortfalls occur (Guillaumont, Guillaumont Jeanneney, and Brun 1999).

Last, through the several channels we have just noted, the instability in export earnings and the related relative price instability are likely to lead to political instability because of their significant impact on absolute and relative incomes. Thus, this export (price) instability may be an important explanation for the relation found between the share of the primary commodities in the exports and the risk of conflicts: Collier and Hoeffler (2002), who emphasized this relationship, suppose that the presence of primary commodities gives rise to a rent-seeking behavior and favor the financing of rebels. However, the instability of exports earnings—greater when exports are mainly primary commodities—exacerbates feelings of frustration. When the instability of exports, weighted by the rate of openness, is included in a conflict determination model *à la* Collier-Hoeffler, not only does the risk of conflict increase significantly, but the significance of the share of the primary commodities in exports vanishes (Chauvet and Guillaumont 2003). The impact of export earning instability on political instability therefore seems to be an important channel through which growth sustainability is disrupted (Arcand, Guillaumont, and Guillaumont Jeanneney 2001).

Aid as a Factor of Resilience to Price Shocks

Recognition of the harmful nature of commodity price instability on the economies of exporting countries contributes to justifying external assistance for such countries. Aid is all the more justified in that, in vulnerable countries (those subject to highly unstable world prices), it has proven to be more effective in terms of growth than it has been in countries that are economically less vulnerable. As much as sound policy, vulnerability makes aid more effective or, to put it differently, aid dampens the negative consequences of vulnerability (Chauvet and Guillaumont 2004; Guillaumont and Chauvet 2001). In particular, aid is marginally more effective during periods of

declining commodity prices (Collier and Dehn 2001). The various studies referred to here document both the negative effect of instability or price declines (an additive variable in econometric estimates) and the attenuation of this effect thanks to aid (multiplicative variable).

The role of aid as a cushion against developing countries' vulnerability to price shocks appears to take place mainly through an increase in their resilience. As shown by the experience of past international agreements on prices, it is hardly possible to act efficiently on the evolution of international prices, or on the size of the shocks (Guillaumont and Guillaumont Jeanneney 2003). Regarding exposure to shocks, action can take a long-term perspective only as it involves a diversification of exports that results from development itself. However, aid increases the resilience to price shocks not only through its volume, but also through its modalities. A brief examination of the several channels through which international price instability affects development reveals that dampening price shocks has both macroeconomic (through government budget, the real exchange rate, political stability) and microeconomic consequences (in sectors directly affected). Aid can intervene at these two levels to attenuate vulnerability to international price instability.

Aid to Dampen the Macroeconomic Consequences of International Price Instability

The expression “dampening price shocks” most often refers to dampening price drops. However, price shocks may be positive as well as negative. One clear lesson from the past 30 years is that rapid rises in international prices have drawn economies into situations that were particularly difficult to manage when prices later fell. Hence, the occurrence of positive and negative shocks in succession—in other words, price instability—is at the root of the problem.

It is as if price booms were perceived as permanent shocks—as information on long-term trends, likely to sustain a higher level of expenditures—and shortfalls were perceived as transitory shocks, to be compensated. A well-designed dampening policy has to avoid this mistake and always to refer to long-term signals. It must help developing countries face the risks linked to short-term price fluctuations through an improvement of the management of their export booms so that they can increase their resilience to following price shortfalls.

The international community cannot content itself with emphasizing the importance of sound domestic macroeconomic management for purposes of dampening shocks, precisely because such shocks make the conduct of economic policy more difficult. The role of the international community in response to shocks could be to act simultaneously to provide insurance and promote sound management. The general idea is that the international community could help introduce automatic stabilization mechanisms by financing their costs subject to the adoption of agreed and controllable management rules. In short, the international community would offer a guarantee in exchange for a commitment to rules. Such *ex-ante* conditionality is

essential to justify an automatic response to shocks, without attempting to subject the use of funds made available to other forms of conditionality.

The financial instruments used to compensate shocks and implemented at the international level were not exactly in accordance with this principle, and have shown their limit: neither the IMF compensatory financing created in 1963, nor the export earnings stabilization system, so called Stabex, which worked out during the Lomé Conventions, covering the period 1975–2000, have correctly met this automaticity principle. Even if the compensatory financing had been initially implemented with a less severe conditionality than the standby agreements, it simply became an additional mechanism in complement to other IMF mechanisms, in particular the SAF and of the ESAF for the lower income countries, and was therefore submitted to the same conditionality. The Stabex has increasingly suffered from the contradiction inherent to its two basic principles: automatic stabilization and targeting stabilization funds to agricultural sectors affected by price shortfalls. This is the reason why, along with the successive conventions, under the pressure of European countries, the control of the Commission on the use of Stabex funds became increasingly important, implying longer and longer delays in disbursements and removing their contracyclical effects, without guaranteeing any real compensation for the farmers affected by price shortfalls (cf. Collier, Guillaumont, Guillaumont Jeanneney and Gunning 1999 and CERDI 1998). The new mechanism, the “support in case of short term export earnings fluctuations,” which has replaced Stabex in the Cotonou Convention, seems to be closer than Stabex to genuine budgetary support, but it also requires agreement on the allocation of the funds. However, it may be possible to amend its working rules toward more automaticity.

A convenient way to ensure automatic compensation to shocks is to link debt service to the evolution of export prices or export revenues. But another solution has to be found for the poor countries with a low level of indebtedness.

Automatic Adjustment of Debt Service to Price Shocks: An Ex Ante Management of Price Shocks

The proposal to link public debt service to the evolution of export prices offers a macroeconomic application of the principle of not only compensating for price shortfalls but also for price instability. Alleviating public debt service when prices are low, but increasing it when they are high induce a contracyclical effect on public finance: the lowering of external debt service allows the economy to maintain other domestic expenditures in spite of the decrease in tax revenues induced by the export shortfall. In the opposite situation, increasing the debt service avoids the risk of a destabilization and of a hardly reversible increase of public expenditures that could result from the rise in prices and receipts. Such a system could be implemented for any commodity dependent country willing to adopt it and to effectively commit to increase the public debt service when export prices and revenues increase. Clearly, credibility and respect of this commitment are the most sensitive issues for such a system to work properly.

The implementation of such a scheme obviously raises several questions: (i) the nature of the reference indicator (the price of one or several primary commodities, or export earnings), (ii) how to compute this reference indicator, (iii) the modalities of adaptation of the debt service (canceling or delaying the installments). The answer to the first question depends on whether the loan is sovereign or not. Referring to a single commodity price is not conceivable except for the case where the loan is contracted with a firm or an organization whose activity is mainly linked to one particular commodity.² When a loan is made to a government, the main primary exports, or even the whole range of exports are to be considered as a reference. The question is then to know whether the reference must be an average price of the exports or the export revenues. The advantage of the second solution, which was that used in the Stabex compensatory financing facility, is to take into account both price and quantity shocks resulting from exogenous events, such as climatic events, or from the price evolution itself. The advantage of the first solution is to enable the mechanism to rely on international rather than on national data and to be independent from domestic behaviors and policies that could influence export revenues.

The second question deals with the definition of a price or a revenue reference to derive the threshold triggering the mechanism. It seems logical to refer either to a trend value or to a price considered as reasonable by the main producers and consumers. To avoid the mechanism to be permanently activated, minimum deviation from the reference value have to be defined. These questions have been extensively studied in the context of the various types of compensatory financing schemes (for example, CERDI 1998).

Two approaches are conceivable about financing. A global approach would be to modulate total public debt service. This would require a multilateral rescheduling fund, financed by the supplementary debt service paid by debtors facing temporarily higher prices, or possibly by insurance contracts subscribed by governments and supplemented by official development assistance, at least for the initial endowment. This solution allows for an equitable burden sharing between creditors. A loan by loan approach would consist in experiencing new loan contracts including an automatic adjustment of payment modalities. This second approach has the advantage of emphasizing the responsibility of both creditors and debtors, as they cannot rely, as a last resort, on an external structure to provide risk coverage by an external structure. However, this solution could not be fully effective as long as a new generation of loans has been substituted to the existing one.

Beside loans with adjustable debt service, whose management is necessarily complex, other schemes can be conceived that deserve examination. For example, any concessionary loan is in fact a combination of a classical loan and of a grant. We can therefore imagine a financing scheme based on loans with constant annuities complemented with grants that could be raised in case of an exogenous temporary (negative) shock and that would then help cover the debt service, partly or entirely. These grants could be financed by a decrease in the concessionality of the loan, resulting from a smaller interest bonification or by a shorter period of amortization.³ This kind of scheme avoids the difficulty of increasing the debt service when export prices

or revenues increase. The management of the loan repayment would remain classical, but some payments could be covered, partly or entirely, by the associated grant activated in case of decreasing prices. If no shock occurs, we could imagine using the grant, or a part of it, to substitute for the last payments.⁴ However, the disadvantage of this approach is that it doesn't work symmetrically in case of an increase or a decrease in prices and that it provides no incentive for a sound management of the booms. We could imagine that, to be covered by such an insurance, countries would have to commit to sound economic policy rules .

These examples emphasize the potential for financial instruments indexed on the shocks faced by poor indebted countries. However, their technical, juridical, financial and political feasibility are still to be analyzed, as is the way to articulate them with the other ODA instruments. Obviously, adopting such an approach raises the question of the coordination between the various creditors: without any coordination, a prisoner dilemma appears; no creditor has any incentive to propose to adjust his instruments to price shocks, lest he would thus facilitate payment of the debt service owed to other creditors without any improvement for the beneficiary country.

HIPC countries, which are particularly dependent on primary commodities, might find an interest in such schedules, even if they already took advantage of debt cancellation. The aim of the HIPC initiative is to converge to a debt to export ratio equal to 150%. However, sustainability at this level is analyzed assuming a growth rate of exports, without any explicit mechanism to adjust the level of the debt and its service to the evolution of the exports price. We could apply the schedule we detailed above to the remaining debt. The benefit for HIPC countries would crucially depend on the reference threshold of the export price. As a matter of fact, at the completion point, the international price of several commodities was relatively low and therefore could not be used as a reference threshold.

More generally, maintaining sovereign concessionary loans in countries highly vulnerable to price shocks may imply to move from an ex post to an ex ante management of price shocks as regards their impact on the external debt service. The volume, or profile, of the debt service would be, directly or not, adjusted according to these shocks. It is a major challenge both for the provisional fiscal planning of donor countries, and for coordination among donors, financial engineering of ODA and measurement and management of concessionality in ODA. This kind of approach would not have to be restricted to the debt stock of the countries eligible at the HIPC initiative. It would provide a significant step toward a new indebtedness strategy more realistic, appropriate and sustainable.

Price Shocks Management in Poor Countries Financed by Grants: A Special Fund for LDCs?

This type of proposal should not mask the reality that other countries, while not heavily indebted, remain extremely dependent on their commodity exports and subject to significant price shocks. It would be paradoxical for a new international initiative intended to address such shocks not to take such countries into account or to

exclude them for the simple reason that they are not heavily indebted. The logical response would then be for automatic assistance to be extended to them in the event of price drops beyond a certain threshold, subject to the condition that they undertake to repay the aid at a pace that itself depends on price developments. In this spirit, a reasonable proposition would be to create a new mechanism for automatic assistance in the event of price declines that is reserved for “Least Developed Countries.” Let us recall that this category has been established by the United Nations with a view to ensuring differential treatment and is based on criteria whereby they may be identified as particularly vulnerable low income countries.⁵ We also remember that aid is even more effective for economic growth as a country is more vulnerable (Guillaumont and Chauvet 2001). This aid, extended in grant form, would be distinct from the International Monetary Fund’s compensatory financing. It should correspond to partial compensation subject to the sole condition that the country previously committed to limit the growth of its public expenditure during periods of high prices. The country would thus be prompted to set aside a portion of the gains registered when prices are high in order to maintain its spending levels when prices decline to the extent such drops are not offset by the international community.⁶ This would thus play the role of insurance and constitute an incentive for self-insurance. It should be possible to mobilize the resources necessary for this mechanism insofar as it would be limited to the category of “Least Developed Countries.”⁷

The Role of Aid as an Instrument to Face Sectoral and Microeconomic Impact of International Price Instability

Since price instability has unfavorable effects on both the macroeconomic and sectoral levels, it is logical for the mechanisms to be designed in such a way as to remedy the effects of instability at each of these levels. Our focus here is on mechanisms aimed at attenuating the effects of price instability in the agricultural sector.

Combining Macroeconomic and Sectoral Support

The intensity with which international price instability is transmitted to exporters and agricultural producers depends on the tax and parafiscal policies of the government as regards agricultural exports. In the absence of such levies, price changes are transmitted in their entirety, which does not preclude an influence on general tax receipts owing to the impact of price changes on national income. In the case of levies that are proportional to the value of exports and constant, the direct income gain or loss is shared by the government and the sector, which may result in greater producer price instability than international price instability if marketing costs are rigid. Naturally, by modifying its tax rates, the government changes the conditions under which gains or losses are divided between itself and the stakeholders in the sector. For this reason, the external support for a policy aimed at using insurance mechanisms to reduce the risks incurred by producers owing to price variability must ensure that

it does not constitute a pretext for a greater transfer of risk from the government to producers. In other words, it must be accompanied by fiscal conditionality.

Insurance Schemes or Guarantee Funds?²⁸

First, the international community could assist with establishing insurance mechanisms for agricultural producers in low-income countries who currently find them out of reach owing to their cost. Producers could then take out insurance at a modest price, in the form of an option to sell a given volume of their harvest. The price at which the option is exercised should be set in terms of the past trend for the international price. There would be no risk of adverse selection, but rather a beneficial selection, as it affects those with the greatest need, and there would be no moral hazard in that farmers, at least those producing export crops, cannot influence prices and the government's behavior is subject to conditionality. The external support should both cover a portion of the costs of managing the options and guarantee the financing of the possible gap between the option exercise price and the producer price corresponding to the international price at the time the export product is sold.

The advantage of this solution is that the sale of options could be managed by private operators. Moreover, it could be associated with insurance on the volume of harvests. To be sure, the ease with which this approach could be implemented would vary from country to country, depending on the scale, location, and dispersal of producing units. The major drawback is that it would dampen only negative shocks, as it is difficult to conceive of circumstances in which producers would undertake to pay back a portion of their earnings in the event of unusually high international prices.

This highlights the objective of reducing the variability of the prices paid to producers, notwithstanding the flaws in the operation of stabilization funds. Conceivably, the international community could provide its support to guarantee funds whose operation would meet a number of conditions. The two key conditions pertain to the flexibility of the reference price and the placement of the monetary assets involved.

The price guaranteed to the producer should be calculated on the basis of an international price that is gradually adjusted toward the international market trend and reflects normal marketing, transportation, and processing costs and perhaps a rate of public levies itself determined in light of the international trend price. This guaranteed price should be widely disseminated by the government throughout the country by the radio and other media. However, the risk of predation by intermediaries is high in some countries (for example, Assidon 1989), but is reduced when strong producers' organizations exist. The guarantee fund would be credited by the positive differentials between the effective international price and the trend price and be debited by the negative differentials.

The cash assets of the guarantee fund, built up both by contributions from producers during periods of high prices and by international assistance, should be managed by a body that is independent of the government and preferably has interna-

tional status. These funds would thus be beyond the government's reach, which is necessary in order to ensure the credibility of the system and would make it possible to use them countercyclically.

The operation of such a guarantee is compatible with trade liberalization and can accommodate various forms of marketing, including those that give producers' associations an important role. In order to prevent different systems in neighboring countries from favoring informal reexports to the country where the highest price is offered, it would be advisable to design the guarantee system in a regional context.

International community support for this kind of guarantee fund would be all the more justified should it cover products whose prices are structurally depressed and for which price variability is boosted by the subsidies that industrial countries pay to their own producers, in particular in the event of price declines.

Conclusion

The negative consequences of commodity price instability on the political stability and economic development of poor countries have now been sufficiently documented to legitimate international answers. Recent declarations of the French President at the Summit of the Heads of State of Africa and France and the coming G8 meeting offer an opportunity for new thinking and new initiatives in this field.

Lessons have been drawn from numerous measures which have been implemented for forty years and have failed, mainly because they have ignored long term market trends. New solutions exist, however, that respect market trends and rely on contracts between the international community, States and producer organizations. The common feature of the measures presented in this communication is to offer a guarantee in exchange for some commitments to rules, likely both to improve the macroeconomic management of the shocks and the protection of poor producers.

These solutions could be combined with the treatment of highly indebted countries' external debt and with schemes based on contra-cyclical grants for the Least Developed Countries. Resources needed to implement such guarantees would not seem to be enormous. Moreover it is conceivable to redirect existing schemes, such as, after amendments, the Compensatory Finance Facility of the I.M.F., or the "support in case of short-term fluctuations of export earnings," included in the Cotonou Convention.

Notes

1. For evidence on the magnitude of price shocks in developing countries, see for example Collier, Gunning and associates et al. (2000) and CERDI (1998).
2. For instance, a loan granted to the North Province of Nouvelle-Calédonie by the AFD in 1990 in order to finance the repurchase of the shares of a mining firm was dependent on an "increase or delay of the capital payments if the nickel price LME is above or under 3,75\$/£b or 2,5\$/£b respectively, while the length of the loan cannot last over 13 years."

3. As the long periods of payments delays for the sovereign concessionary loans would seem less justified if the financing scheme were not tied to the only intern characteristics of the project.
4. The Net Present Value of the grant would be inferior, because it would only be engaged at the end of the repayment. The part of concessionality of that scheme would not be entirely expectable, but would be limited within a known range, depending on the moment where the grant would be called for.
5. On the method for identifying the Least Developed Countries (LDCs), see United Nations (2000, 2003).
6. Of course, there is no guarantee that this mechanism constitutes a sufficient incentive to induce a smoothing behavior.
7. It would not be out of the question to use in this way the “support in cases of short-term fluctuations in export earnings” provided under the Cotonou Agreement to the African, Caribbean, Pacific (ACP) countries with, moreover, less rigorous eligibility criteria for the ACP which are members of the category of the Least Developed Countries as defined by the United Nations.
8. This section is based on Collier and others et al. (1999) and on Guillaumont and Guillaumont Jeanneney (1990).

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Scaling Up: A Development Strategy for the New Millennium

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The universal endorsement of the Millennium Development Goals has helped to reverse a decline in the share of national incomes allocated to aid. But it has yet to generate binding commitments or concrete plans. Halfway to the 2015 deadline, progress is partial, halting, and insufficient to meet the goals. To overcome the silent crisis of development cooperation implied by this diagnostic, the paper recommends a comprehensive scaling up of development practice. Scaling up toward the higher plane of global development would extrapolate a secular trend that propelled development operations forward from the pioneering days of projects that were conceived as vehicles of resource transfer toward planned economies to today's policy-based country assistance development strategies geared to the integration of poor countries into the global economy.

The revised approach would tackle the rules of the game of the global economy and embody the emerging conception of development as a social transformation process. Projects would still be used but only as incubators for policy experimentation and knowledge transfer. The new strategy would reflect the lessons of experience, including the need to strike a finer balance between hierarchical, individualistic, and relational conceptions of development. Next, the paper specifies the four challenges that must be met to revive the fortunes of the troubled development enterprise: scaled-up metrics, scaled-up instruments, scaled-up policies, and scaled-up partnerships. In particular, it recommends: (1) shifting the unit of account from the project to the higher plane of country strategies and global public goods programs; (2) a reconceptualization of aid vehicles to emphasize results-based programs combined with projects conceived as instruments of social learning; (3) more and better aid combined with an expansion of the development agenda beyond aid toward the adjustment of trade, foreign investment, intellectual property, migra-

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Annual World Bank Conference on Development Economics—Europe 2004

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tion, environment, and other policies; and (4) new partnerships combining the legitimacy of governments, the ethics of the civil society, and the innovative energies of the private sector.

This paper is about scaling up. It defines the concept and highlights its relevance to the malaise that has gripped the development business ever since it became clear that the millennium goals set by the world community are unlikely to be met. It delineates a new strategy that would accelerate progress from projects to country programs onward toward the higher plane of global programs and policies. Next, it unpacks the lessons of experience about development—a social transformation process—and it draws implications for the scaling-up strategy. Finally, the paper outlines the four challenges that must be met to implement the strategy: new metrics, instruments, policies, and partnerships.

What Is Scaling Up?

The dictionary (Webster's 1962) provides definitions for the verb and for the adverb, but it is silent regarding the verb-adverb combination. This may be because, originally, *scale* meant ladder and, by extension, any means of ascent (which would make the adverb redundant). Later new layers of meaning accumulated so that, currently, *to scale* is to climb, measure, regulate, make, or arrange according to a predetermined or required scale.

These definitions combine increases in height, size, and scope. They make clear that *scaling up* means not only climbing up but also reaching out and drilling down: as a tree grows, its branches spread and its roots deepen. Notions of care, precision, and artistry also characterize current usage since *scale* evokes the equidistant marks on a measurement instrument; the proportion that a map or a model bears to the thing it represents; a system of classification according to a standard of relative size; or a system of notation—for example, in music, a set of tones arranged in regular sequence of rising or declining pitches.

In sum, three distinct meanings of *scaling up* can be discerned: (1) moving an activity to a higher plane; (2) increasing the size and scope of an activity so as to “measure up” to a given challenge; and (3) assembling the resources and restructuring the processes so as to achieve one's goals economically. This requires the identification of the most effective techniques and sequences for the function to be served and the tasks to be accomplished.

Thus understood, scaling up is highly relevant to the development challenge. Rather than simply throwing more money at problems, it involves: (1) upgrading the development agenda to achieve global results rather than simply project objectives or country goals; (2) broadening the scope of policy concerns, the scale of resources, and the range of coalitions involved in the development enterprise; and (3) restructuring processes, instruments, and metrics so as to achieve development effectiveness.

All three connected to the growing economic, social, and environmental interconnectedness of nations.

Development in the New Millennium

According to Kofi Annan, “we are all influenced by the same tides of political, social and technological change. Pollution, organized crime and the proliferation of deadly weapons likewise show little regard for the niceties of borders; they are problems without passports” (Annan 2002). The new development paradigm is characterized by ownership, partnership, results orientation, and holistic development (CDF Secretariat 2001). The Millennium Development Goals (MDGs) elevate these principles of effective development aid to the global level.

The agreed goals embody universal aspirations (poverty reduction, social development, environmental regeneration). Their legitimacy is unrivaled. The Millennium guideposts synthesize the outcomes of numerous international conferences and they evoke the major themes of a Millennium Declaration signed by heads of state in September 2000 and subsequently approved by all 189 states of the United Nations General Assembly (United Nations 2001a). The global agreement to track human progress through 18 targets and 48 indicators is unprecedented in development history.

Already, the MDGs have helped to strengthen development coalitions and to articulate a compelling rationale for aid to a largely skeptical public. The World Bank, the International Monetary Fund (IMF), and the Organisation for Economic Co-operation and Development (OECD) have rallied behind the MDGs. For the first time in over a decade, aid levels are rising. But the agreed goals symbolize strategic intent rather than concrete action plans. The road map toward the implementation of the Millennium Declaration does not lack specificity: it includes 56 goals (United Nations 2001a), while the UN Secretary-General’s report to the Preparatory Committee of the Monterrey Conference included 87 recommendations (United Nations 2002a). But the final communiqué of the Monterrey Conference, negotiated in advance, did not include binding government undertakings.

Each country was left free to set its own course and formulate its own benchmarks. This is because national development potentials and constraints are highly differentiated, and hard-won experience has consigned standard policy blueprints to the dustbin of development history. But size matters in development, and global goals will not be achieved without concerted action and adequate means. The fates of developed and developing countries have become inextricably interlinked. Development can no longer be conceived as something that happens “out there.” The problems of the global poor (lack of security, opportunity and representation, a fractured and inequitable social order, a stressed physical environment) have become everyone’s problems. This is why scaling up—the subject of this paper—is a strategic challenge in the new millennium. Scaling up ambition is meaningless unless matched by a scaling up of mechanisms and resources.

This explains the broad sweep of the Millennium Declaration and of the global compact consecrated by the United Development Financing for Development Conference in Monterrey—under which poor countries undertook to improve governance, policies, and institutions, and rich countries committed to increase aid, open up market access, and support capacity building. These reciprocal obligations transcend the specific targets and indicators crystallized by the MDGs. They amount to a shared responsibility to achieve results consistent with common development values. The problem lies in the lack of articulation of the means to be deployed to achieve the goals. A new strategy is needed.

Why Scale Up?

Equitable, sustainable, inclusive development cannot be captured fully in a scorecard. Reduced child mortality is important but so is adult health status. Increased school enrollment matters but it does not guarantee learning. Income poverty reduction is critical but so are the other freedoms that constitute human development (Sen 2000). But the promise of comprehensive development embedded in the Monterrey compact (let alone the enhanced formulations of sustainable development that were unveiled in Johannesburg) will not be met simply because goals and performance indicators have been announced with great fanfare. Vision without reality is hallucination. Only results matter, and early experience suggests that implementation is seriously lagging (ActionAid 2002).

The past development record is not all bleak. Average life expectancy has increased by 20 years in the last 40 years. Illiteracy has been halved in the last 30 years. During the 1990s the share of people living on less than US\$1 a day has been reduced from 29 percent to 23 percent. This means that 125 million fewer people are living in abject poverty. Almost 80 countries have created the capacity to educate all their primary school-age population. Seventy-two countries (with 58 percent of the world's population) are on track to eliminate gender disparities in schooling. There has been progress in reducing maternal deaths in all regions except sub-Saharan Africa. Eighteen developing countries have halved the proportion of people without access to safe water and another 32 are on track to meet the target.

Such successes demonstrate that a lot can be achieved, but warning signs are flashing: actual progress has stalled in many countries. The baseline for all the MDGs is 1990 and most of the goals have been set for 2015. We are halfway to the 2015 deadline, and on current trends most MDGs will not be met (World Bank 2003b). Only a third of developing countries are on track to meet most of the goals. Regional differences are striking. The regions of the world most in need of development (sub-Saharan Africa and large parts of South Asia) are lagging. Urgent steps must be taken to broaden and accelerate the pace of development.

At current growth rates, East Asia alone is likely to achieve the agreed income and poverty reduction objectives, and this assumes that it will recover quickly from the consequences of the SARS epidemic. In Africa, the number of poor people and

the rates of infant and child mortality rates have gone up instead of down. Progress toward the achievement of primary education for all has been lagging in three regions (Africa, South Asia, and the Middle East). If present trends continue, there will be 140 million underweight children in 2020 and 75 million children will be out of school in 2015. To reach the income-poverty goal, growth in developing countries would have to be twice the levels achieved in the 1990s for the next 15 years.

To accelerate progress, the development enterprise needs fresh ideas, new partnerships, and a focus on results. More resources should be channeled to countries that are lagging because of unfavorable initial conditions. Projects should be used to experiment, innovate, learn, and evaluate what works and does not work. Country-wide programs should provide the framework for development assistance. But aid, even if increased in size and quality, will not be enough. Also needed is a reform of the global policies that shape development. A new development logic must be crafted—the logic of scaling up.

The History of Scaling Up

The proposed expansion of the development agenda would extrapolate a secular trend. A gradual scaling up of ambition characterizes the history of development. In the pioneering years, craftsmanship was highly valued and individual projects were dominant. Conceived as “privileged particles of development,” they combined “modesty with respect to generalized evaluation and quantification” with “large and free-swinging ambitions” and “a contribution to progress that goes far beyond their immediate production tasks” (Hirschman 1967).

Paradoxically, imaginative experimentation in development operations was combined with a conception of development in which the “production function” was the prevailing development metaphor (Tinbergen 1984). Planning held sway over policy and aid was directed toward the achievement of spending targets. Aid volumes were related to “gap-filling” objectives derived from input-output models and macroeconomic projections. Economic analysis concentrated on shadow pricing to compensate for deliberate market distortions.

From this perspective, “scaling up” was largely a matter of increasing the volume of aid and raising the capacity of public agencies to absorb resources. This approach was reconsidered in the early 1980s when the debt crisis erupted and highlighted the limits of the state. By then the neoclassical resurgence had permeated development economics. The massive macroeconomic imbalances that prevailed in developing countries were no longer taken for granted, and aid givers undertook to reform the underlying domestic policies that created them. To this end, quick-disbursing assistance instruments were forged to connect resource transfers to the quality of economic management.

Through adjustment lending, development assistance ascended to the policy level so as to address structural development obstacles and dysfunctional macroeconomic management practices. Initially, imperfect commitment to reform objectives by

recipient governments (combined with pressures to lend) led to a disappointing performance record (Kapur, Lewis, and Webb 1997). But in time, the credo of market friendliness spread throughout the developing world, country ownership replaced ex-ante conditionality, and the results associated with policy-based lending gradually improved (World Bank 1999)—albeit not its image, tarred by the coercive and burdensome conditionality of the earlier adjustment period.

The late 1980s witnessed a different kind of scaling up: the development agenda expanded to encompass the social and environmental concerns promoted by an emerging civil society (Wade 1997). This led to the incorporation of safeguard policies and participatory processes into the project cycle. More demanding and complex operations resulted along with higher potential benefits but also higher transaction costs (World Bank 2002c). In response, internal management practices were put in place to administer development risks and streamline business processes while the move toward the higher plane of national policy dialogue was consolidated as evaluation evidence confirmed the close correlation between investment project outcomes and the quality of the policy and institutional environment.

In the early 1990s, the very cycle through which projects were designed and processed was reconsidered (Picciotto and Weaving 1994). Hirschman's original insights, snatched from casual but piercing observations of development projects, finally achieved widespread recognition. Adaptable project instruments were introduced to promote learning and innovation as well as to facilitate the scaling up of promising project initiatives into adaptable nationwide programs. Sectorwide and programmatic operations became more frequent, and development operations increasingly focused on knowledge transfer, capacity building, and governance reform. By the turn of the century, the scaling-up process had culminated in the promotion of country-based Poverty Reduction Strategy Papers and associated debt relief for deserving highly indebted poor countries (World Bank 2002b).

These shifts in development practice were accompanied by a partial retreat of neoclassicism and a surge of interest in the new institutional economics. Whereas market failure dominated development thinking in the pioneering years, the risks of government failure emerged as a major concern of decision makers by the 1980s. In the 1990s, the scaling up challenge was revisited to take explicit account of the complementary roles of the state, market, and voluntary sectors. By the time the MDGs were framed, the doctrinaire views of market fundamentalists and anticapitalist protesters had been set aside and a pragmatic mix of market-friendly, people-friendly, and environment-friendly policies had laid the foundations for a new development consensus.

Scaling Up as Social Adaptation

Scaling up of the development agenda is consistent with a conception of development that recognizes the interlinkages involved in social transformation (Stern 2002). It gives pride of place to experimentation, innovation, learning, and objective evalua-

tion of what works and does not work. It is knowledge about what is taking place in the real world that shapes customs, incentives, and policies. Mental constructs are critical to the creation and adaptation of rules, norms, conventions, and organizations. They set the standards that ultimately define human interactions, determine economic performance, and define who the losers and the winners will be.

Coercive scaling up is not effective. For development to be sustained, cultural preservation must be combined with cultural transformation. Values that promote competition must be combined with values that enhance cooperation. Dissent must be restrained by loyalty. By definition, policy and program development involve choices. Choosing one road to progress may imply that a more efficient trajectory has been blocked off (what institutional economists call “path dependence”). But a free press, an open society, and policy research based on reliable data and objective evaluation can help correct the course. The true object of development assistance is to facilitate social learning, and “scaling up” implies that the lessons of experience are heeded and applied on a scale appropriate to the challenges the society faces.

Hence, scaling up requires experimentation. All development operations involve substantial transaction costs. The feedback process associated with their implementation is central to their economic justification. Careful design is needed to ensure that they contribute to the learning dimension of organizations and societies. Accountability, participation, and evaluation lie at the core of sustainable change. Values and beliefs evolve slowly, but the process can be accelerated through systematic feedback so that lessons drawn are quickly learnt and applied. This is what the institutional design of development operations is about.

Specifically, scaling up through societal learning involves choices between three complementary conceptions of development (Granovetter and Swedberg 1992). The first is *hierarchical*. Originating in sociology and promoted by business school case studies, it stresses the value of charismatic leadership and perceives human beings as highly pliable and responsive to authority. It is consistent with Hobbesian theory, according to which a chaotic and violent state of nature must be domesticated by a sovereign authority, for example, a dictator, a CEO, or the manager of a project implementation unit.

The second conception is *individualistic*. Favored by economists, it perceives social systems as atomized and made up of individuals motivated by self-interest. According to this conception of development, scaling up largely hinges on creating the right incentives framework. It points to agency problems, information asymmetries, and collective action dilemmas as obstacles to effective scaling up. The third conception is *relational*. Articulated by economic sociologists, it views human interactions as embedded in a web of information networks, social links, and informal groupings. This view of the world is consistent with scaling-up strategies that rely on decentralization, participatory methods, and empowerment techniques. They are geared to the nurturing of trust and the accumulation of social capital.

Development experience suggests that replicability and sustainability (acid tests of effective scaling up) call for judicious calibration between these three rival concepts so as to achieve the right mix of competition, cooperation, and hierarchy and to

ensure harmony between private interests and societal goals. The admixture varies depending on the country context and the nature of the development intervention (Picciotto 1997). Where the production of private goods is concerned, exit is the option of choice and competition must be favored. For activities reliant on common pool resources (pastures, irrigation water, and so on) competition leads to tragedy, cooperative scenarios are recommended, and voice is the key parameter.

The delivery of pure public goods (a new tax policy or a traffic signaling scheme) requires policing as well as cooperation. Hence, it calls for a combination of hierarchy and participation so that exit is restrained and adequate scope is given to the recuperative benefits of voice. By contrast, toll goods (power, water supply) are best delivered through organizational options that combine market and hierarchy. The balance to be struck (ranging from regulated private companies and concessions to contracting or autonomous public agencies) depends on technological characteristics (for example, network features) and on the administrative environment (for example, the reliability of judicial structures and the predictability of regulations).

The Dynamics of Scaling Up

Policy experiments combined with concurrent evaluation are needed for effective scaling up because the precise mix of standards, rules, and protocols involved in changing behavior in an operating environment permeated with uncertainty cannot be defined in advance. Success at one scale of operation (or in one particular location) may not be replicable on a larger scale or in a different context. Yet change must achieve sufficient coverage to become self-sustaining. This requires a peculiar combination of knowledge, persuasion, and dissemination so that mainstream opinion shifts and the new idea becomes the general consensus.

According to the “tipping point” theory (Gladwell 2000), three types of social actors are needed to trigger large-scale social transformations: *mavens* who screen and accumulate relevant ideas and knowledge; *connectors* who inject them within organizations or the society at large; and *salesmen* who have the intuition, the charm, the energy, and the motivation to persuade, cajole, and induce decision makers to act. But at the root of their common success lies proven innovation and judicious experimentation. Thus, scaling up requires a gathering of diverse skills and an orderly sequence of listening, piloting, learning, demonstrating, and mainstreaming.

A classical development example of scaling up is the expansion of the dairy cooperative movement in India funded by a coalition of donors and the World Bank.¹ It started in a single district of Gujarat but gradually turned into a nationwide program benefiting small producers by offering them access to modern milk processing facilities and businesslike marketing networks (World Bank 1998). A combination of market discipline, social capital creation, and strong leadership yielded a nationwide movement that has benefited thousands of poverty-stricken communities. This development success illustrates the frequent combination of vertical scaling up (involving local, state, and national actors) with horizontal mainstreaming (geographical

spread and integration of various production, marketing, and community development functions, each requiring its own institutional design).

Scaling Up Requires Balance

The disappointing results of development efforts suggest that the “exit option” (that is, economics) may have been overemphasized. Policies matter but so do institutions that nurture voice and loyalty. It is not enough for developing countries to adopt outward-oriented policies to create a sustainable enabling environment for private enterprise, innovation, and investment. Such policies must be backed by organizational structures and behavioral norms that facilitate business transactions and protect property rights, promote competition, and open up opportunities for the poor to participate in the market economy. Hence, the hierarchy of the state needs strengthening. Equally, human development programs and pro-poor organizations must be promoted to implement people-friendly and environmentally sustainable policies. To this end, the voice option needs to be energized. A balance is needed lest adjustment create dislocation in social bonds, provoke cultural resistance to reform, and induce civil strife by accentuating regional imbalances and increased income inequality.

The risk of social polarization is considerable. Lacking the exit option available to capital and knowledge, labor has seen its competitive advantage eroded while high rewards have accrued to finance and skills (Rodrik 1997). As a result, the poor have borne the bulk of the costs associated with the financial crises that have accompanied globalization. They have also suffered disproportionately from natural disasters, civil strife, and regional conflicts. Without access to basic health care and other social services, socially disadvantaged groups have fallen prey to new diseases and old ones as well. Furthermore, the environmental stress associated with wasteful patterns of consumption in rich countries has undermined the common property resources on which sustainable livelihoods for the poor depend.

A high premium to market activities has been combined with greater inequality within most societies. The reduced role of the state associated with globalization has unleashed the civil society and domestic entrepreneurship. But it has also let loose previously repressed ethnic forces and empowered subnational actors and community leaders. According to Ali A. Mazrui, “as we witness the enlargement of economic scale in the world, we are also witnessing cultural revivalism” and globalization has been associated with a return to primordial values and identities, or “re-tribalization” (Mazrui, Luthuli, and White 2002). Francis Fukuyama strikes a similar theme when he relates the extraordinary economic expansion of the industrial democracies with a “great disruption” in religious and community values that has lasted for more than three decades (Fukuyama 1999).

This suggests that over and above the enhancement of financial, physical, human, and natural capital, sustainable development calls for the preservation of social capital. According to Lester M. Salamon, the explosion in the number of nongovernmental organizations in the developing world could “prove to be as momentous a feature

in the late 20th century as the rise of nation state was in the late 19th century” (Salamon 1999). On the other hand, social capital may not have accumulated in a commensurate fashion, since other forms of self-organization and scarce cultural assets have been allowed to deteriorate. In turn, the darker side of the associational revolution can be discerned in the emergence of exclusionary groups and the spread of international crime and terrorism.

The Challenge Ahead

Dealing effectively with the social consequences of globalization means striking a fair balance between market transactions, the workings of the civil society, and the hierarchy of the state (Stiglitz 2002). Through the fusion of markets and the freer movement of goods and capital across borders, the territoriality on which the nation state depends for control has lost a great deal of relevance for a wide range of economic decisions. The imperative of scaling up is linked to economics that are increasingly global and politics that have remained local and national. Global activities are needed to deal with the institutional fault lines and the governance gaps that have become starkly visible in the global development process.

Scaled-up ambitions have not been matched by scaled-up results. New rules of the game are needed not only at local and country levels but also at the systemic global plane. The disappointing progress toward the MDGs is connected to rapid and irreversible technological change and increased economic integration combined with inadequate policy reform by a distorted system of global governance (McGrew 2001). Whereas business corporations, voluntary associations, and, alas, terrorist and criminal organizations have adapted to the new economic geography, governments have had considerable difficulty keeping up with the historic shift (Reinicke 1997). Large mismatches between economic and political organization have emerged at community, national, and transnational levels. In particular, countries endowed with weak governments, limited skills, and fragile market institutions have been marginalized by civil strife, policy weaknesses, adverse terms of trade, and excessive debt.

The predicament of hundreds of million of people living in highly indebted, failed and failing states has been aptly described by Jeffrey Sachs (1999) as “a combination of extreme poverty and financial insolvency which marks them for a special kind of despair and isolation.” To be sure, much of the world is seeking to adopt market-friendly policies. But relatively few developing countries have been able to nurture the norms and the complementary institutions needed to achieve harmonious connectivity to the global economy. The chronic instability associated with economic interdependence, floating currencies, and volatile exchange markets (that account for 60 times the volume of trade and investment flows) has favored continental economies and countries with well-established market institutions.

In order to accelerate progress toward the MDGs, the development system will have to be reengineered. If severe financial crises persist it is because of inadequate global mechanisms to prevent and mitigate them. If massive deficits in global pub-

lic goods delivery continue to prevail, it is simply because collaborative programs are poorly structured, managed, or funded. If global environmental problems go on unattended it is not because of a deficit in beliefs and values (opinion surveys among the rich and poor alike regularly highlight the popularity of environmental protection), but because of a lack of far-sighted leadership.

The experience of high-performance developing countries confirms that achievement of the MDGs would be feasible. But upgrading, broadening, and reengineering the development process calls for institutional adjustments at local, national, and global levels. Victory in what James Wolfensohn calls “the other war” (that is, the war on global poverty), lies in articulating new concepts, deploying new instruments, and forging new partnerships. To implement the MDGs, the world needs scaled-up metrics, scaled-up instruments, scaled-up policies, and scaled-up partnerships. These proposals are not new. But they have not been brought together into a strategic framework for concerted action.

Scaled-Up Metrics

The disappointing progress toward the MDGs appears to conflict with recurrent claims that aid effectiveness is satisfactory and improving. To be sure, aid evaluation processes are not always rigorous or independent. But massive evidence from development evaluations points to substantial improvements in the alignment of operational results with the goals set for individual operations (World Bank 2002d). In parallel, a burgeoning academic literature has produced robust conclusions regarding the positive link between aid, growth, and income poverty reduction (Stern 2002). Much less clear are the linkages between project level ratings, aid flows, and other MDGs.

To forge such linkages, the metrics of the development business need to be adjusted. The adoption of results-based management principles, performance-based aid allocations, and country-based Poverty Reduction Strategy Papers (monitored by the international finance institutions) signal the importance that donors attach to “scaled-up” results. Strengthening the connection between measures of project-level success and MDGs is critical from an accountability perspective. Rather than simply adding up the success rates of individual projects measured against their original objectives, it has become necessary to judge development effectiveness in terms of the contribution that country assistance programs make to the MDGs.

To the extent that projects are conceived as building blocks of country assistance strategies and provided that project objectives are properly aligned with MDG objectives, a close correlation between project-level success and MDG implementation exists. But the MDGs still do not figure prominently in country assistance strategies (World Bank 2002d). Furthermore, transparent linkages between MDGs and the design features of individual projects are not easy to demonstrate. Whereas sectoral ministries hold sway over the public expenditures programs within which investment operations are nested, the MDGs are thematic and crosscutting.

Thus, the first and most prominent Millennium Development Goal (which aims at eventual eradication of extreme poverty and hunger) requires improved opportunities for economic advancement through broad-based economic growth, equitable access to social services, empowerment of poor people, and social protection. Four other goals (MDGs 2, 4, 5, and 6) relate to health and education. Their achievement hinges not only on properly targeted expenditures but also on infrastructure development (water and waste disposal, power, transportation, and so on) and the quality of service delivery. Two more goals address gender equality and environmental sustainability. Their realization implies policy measures that cut across all sectors of the society.

There is no escape from the proposition that development—a comprehensive process of social transformation—is holistic, comprehensive, and country specific. Hence, the time has come to track and evaluate development results at the country level rather than one project and one donor at a time (Picciotto 2002). Conversely, monitoring and evaluation of the impact of rich countries' policies on global poverty reduction needs to be introduced.² A variety of civil society initiatives are emerging. In particular, the Center for Global Development in Washington, DC, has published an index that rates the relative commitment to development of rich countries' policies (Center for Global Development/Foreign Policy 2003).³

Scaled-Up Instruments

Scaled-up metrics would provide incentives for better coordination and more efficient aid delivery. This calls for increased reliance on scaled-up aid instruments. Most aid is still delivered through projects. They are the workhorses of the development business. Often derided by economists, the project concept was a brilliant institutional innovation when it was crafted. Since then, it has demonstrated remarkable resilience. It consists of a bundle of contracts linking principals and agents—that is, owners, employees, contractors, consultants, and beneficiaries. It aims at finite, specific, verifiable results and provides fiduciary guarantees that the resources allocated are used for the purposes intended. It also provides comfort to politicians as well as accountants that development funds are used for the purposes intended.

As an institution, the project instrument meets many of the precepts of economic organization favored by business economists (Milgrom and Roberts 1992). An overarching contract links the country with the development assistance agency in the form of a negotiated agreement that incorporates rewards and penalties. Standard clauses define rules of the game for procurement, disbursement, auditing, and evaluation. Tailor-made legal provisions raise the cost of noncompliance with respect to performance objectives. Thus, from the perspective of individual donors, projects have a lot of advantages. They can be adapted to very diverse circumstances. Their design can be shaped by realistic implementation prospects, taking account of the diverse competencies and incentive frameworks of participants.

The very same pressures toward results orientation that underlie the public appeal of the MDGs help to explain the prevalence of projects in aid delivery. “Attribution”—that

is, tracing the development impact of individual donors' commitments—is not practical when aid funds are commingled. Hence, it is not surprising that donors have a predilection for generating “their own projects” and flying their national flags over them. On the other hand, the proliferation of projects adds to transaction costs and stresses the domestic administration of recipients (World Bank 2002b). Fungibility arguments advanced by proponents of policy-based, quick-disbursing aid vehicles apply with great force to old-style “brick-and-mortar” investment projects. Greater resort to pool funding (Kanbur and Sandler 1999) and other flexible funding vehicles (program lending, sectorwide approaches, budget support, and so on) are essential both to encourage country ownership of poverty reduction programs and to enhance efficiency of aid delivery. But, given widespread fiduciary concerns, intensified capacity-building efforts toward improved management and evaluation of public expenditure programs have high priority.

More Aid

Aid reached US\$57 billion in 2002. This represents a 5 percent increase in real terms and it signals a recovery from the all-time low of the prior three years. Assuming the commitments announced at the United Nations Financing for Development Conference in Monterrey are met, aid will grow by 31 percent in real terms by 2006 (about \$16 billion). This is good news for developing countries. However, even with the planned increments, aid volumes will remain inadequate and there is little doubt that increased aid volumes would help in the scaling-up process. More aid is needed along with better quality aid.

Aid flows now account for only about 0.90 percent of the national income of developing countries and 0.23 percent of the national income of developed countries. This is well below the ratio of 0.33 percent consistently achieved until 1992. It is about half the level achieved in 1967 (0.65 percent). Only 5 out of 21 OECD countries currently meet the United Nations target of 0.7 percent. Another three have given a firm date by which they will reach the target. But this will not be sufficient to achieve the MDGs. Conservative World Bank estimates suggest that even if improved policies have been adopted by developing countries and growth is accelerated, a doubling of current aid levels will be needed.⁴

Thus, aid advocacy retains a high priority. But sustaining, let alone increasing, aid flows will ultimately hinge on the progress actually made toward the MDGs. A central premise of the global compact consecrated by the Financing for Development Conference in Monterrey is that the main responsibility for poverty reduction lies with developing countries. Aid can help only those who help themselves. Performance-based aid allocations geared to domestic policy reform and improved governance are critical to the scaling-up process. They help deliver more for less and should continue to provide the rationale for increased resources allocated to aid and debt reduction.

Better Aid

Aid reflects policy performance somewhat better than it used to, but geopolitical calculations remain highly influential (Shetty 2003). The “War on Terror” has replaced

the Cold War as a major determinant of aid allocations. The share of aid going to the poorest countries has declined. Asia, where most of the poor live, has seen its share drop from 25 percent to 10 percent. The share of aid going to sub-Saharan Africa has also come down, from a peak of 35 percent to 29 percent. Aid to the least-developed countries has declined from \$33 per capita in the 1980s to \$10 today. This is a meager 0.07 percent of the per capita income of rich countries.

Tied aid adds 20 percent to the cost of goods and services procured. Yet it still accounts for over half of aid flows. Technical assistance of dubious utility still accounts for 28 percent of aid flows. As a result, more is spent on technical assistance than on the entire civil service of such aid-dependent countries as Tanzania. The proliferation of aid channels and the fragmentation of aid across hundreds of projects impose high transaction costs.⁵ Aid coordination is still a major problem. Harmonization of aid practices has proceeded at a snail's pace.

The current practice of channeling aid through hundreds of small, donor-driven operations that are geared to diverse and incoherent agendas, saddled with diverse and onerous reporting and fiduciary mechanisms, and managed by project entities that lie outside the regular public administration should be abandoned. So should the excessive resort to expatriate technical assistance and restrictive practices regarding procurement of goods and services. This confirms that the quality of aid is a responsibility shared by aid donors and recipients alike. In particular, aid coordination, untying of aid, harmonization of procurement, disbursement and reporting requirements, reform of technical assistance practices, and judicious choice of aid instruments to minimize transaction costs and build domestic capacities form an integral part of the scaling-up challenge.

Common pool funding of priority programs managed competently in the context of poverty reduction strategies is the future of aid. But projects are still fully justified where overall public expenditures management is below acceptable standards (for example, in failed or failing states). Projects can also play a very useful role in good policy environments where they are designed, implemented, and evaluated to pilot new approaches, as observatories of innovative development practices, and as social learning instruments upstream of sectorwide programs funded by donors' coalitions. Projects designed as policy experiments, learning partnerships, or transmission belts for technology and skills remain instruments of choice for achieving quality programs and effective scaling up of proven development interventions.

Scaled-Up Policies

Thus, improved aid effectiveness must be combined with greater flows of aid. But aid is only one of the policies that must reform to help deliver on the MDGs. In an integrated global economy, it is the aggregate of rich and poor countries' policies that should be judged by results. Yet the "results chains" normally associated with development evaluations relegate rich countries' policies to the status of exogenous factors or boundary conditions. The unintended consequence of such aid-centered

assessments has been a mistaken attribution of poverty reduction shortfalls against goals to poor aid performance. This has contributed to the obstacles faced by advocates of aid just at a time when aid flows should be expanded.

Accordingly, to accelerate progress toward the MDGs, the development paradigm should be scaled up well beyond aid to cover the major transmission belts of globalization. A comprehensive development framework is needed at the global level just as urgently as it is required at the country level. Development cooperation is a two-way street. Partnership implies shared objectives; this is why the MDGs represent a historic achievement. But partnership also assumes distinct accountabilities and reciprocal obligations. And this is where the current development consensus has been flawed. It has focused on policy and governance weaknesses in poor countries while neglecting the impact of rich countries' policies on developing countries.

Yet it is rich countries that exercise control over the institutions that oversee the global economy. It is their rules and standards that regulate the flows of capital, people, and ideas. And it is their production and consumption patterns that pose the greatest threat to the physical environment. If the heady promises of globalization have not been fulfilled it is in large part because policy reform has been asymmetrical. Unless the balance is redressed, the current global transformation (and the volatile market conditions that characterize it) may well continue to generate economic and social dislocation instead of improved living standards for a majority of middle- and low-income countries.

Just as project-level results cannot be explained adequately without reference to the quality of country policies, country-level evaluations are incomplete without reference to the international enabling environment. Given globalization, rich countries' policies matter just as much if not more (given their relative weight) than poor countries' policies. Currently, almost three fourths of the MDG performance indicators point south. Substantial resources have been mobilized to track the progress of developing countries toward the goals and to evaluate the development effectiveness of developing country policies and programs. In all low-income countries, country-based Poverty Reduction Strategy Papers are mandated to guide the allocation of aid resources. These strategies are subject to public disclosure and to systematic review by the World Bank and the IMF (World Bank 2002b).

No similarly integrated effort is underway to evaluate the development effectiveness of rich countries' policies. They have escaped systematic scrutiny even though they determine the amount and quality of aid, debt reduction, foreign investment, trade, migration, access to intellectual property, and global environmental trends on which sustainable development depends. Noisy anticapitalist street protests have mobilized the attention of the media. Instead of evidence-based policy research, idiosyncratic domestic political considerations have shaped global policy making.

Foreign Investment

World inflows of foreign direct investment (FDI) to developing countries and transition economies stood at about \$227 billion in 2001, about a third of the total

(UNCTAD 2003). Compared with other private flows, they have remained fairly resilient despite the world economic slowdown. On a net basis (inflows minus outflows) they are currently the only positive element of private flows to developing countries (about \$31 billion in total).

The distribution of FDI is skewed. Least-developed countries collectively receive only 0.5 percent of global FDI flows. Of this, 86 percent is concentrated in 10 countries, of which over half goes to 4 oil-producing countries. Africa as a whole is a marginal recipient, receiving less than 2 percent. Within Africa, as elsewhere in the developing world, the distribution of FDI inflows is limited to a handful of countries and it is mostly directed to natural resource extraction.

FDI can promote a more competitive business environment and generate domestic and enterprise development. On the other hand, FDI may create limited benefits to host countries when associated with capital-intensive development, corrupt use of royalties, limited linkages to the local economy, and negative environmental impacts or deleterious social consequences for local communities. Independent verification is needed to help enhance the quality and the distribution of foreign direct investment.

The quality of investment flows is shaped by the corporate policies and operating practices of multinational companies and, in turn, these are responsive to public opinion and the policy stances adopted by export credit and investment guarantee agencies. A network of private companies, labor groups, international agencies, academic institutions, and nongovernmental organizations (the UN-business Global Compact) has been launched to promote business compliance with core values in the areas of human rights, labor standards, and environmental practice (United Nations 2002b).

Trade

On a per capita basis, exports from developing countries generate over 30 times as much revenue as aid—12 times in the case of the least-developed countries (Vitalis 2003). Developing countries suffer from high tariffs precisely where they are most competitive, including cereals, sugar, fish, fruits and vegetables, and clothing and footwear. The social consequences of these tariffs are also highly detrimental, since these products are produced largely by subsistence farmers and relatively small enterprises. A 40 percent reduction in tariffs on manufacturing goods would generate an expansion in the volume of global trade of \$380 billion, with nearly 75 percent of the gains accruing to developing countries. Tariff-rate quotas are another area of concern.

Agricultural subsidies in OECD countries are equivalent to the entire gross domestic product of Sub-Saharan Africa. The New Zealand government has estimated that the resources allocated for agricultural subsidies would allow first-class travel one and a half times around the world to all 41 million cows of the European Union with 1,000 euros still left over for their hotels and meals. Consumers in the United States pay 58 percent more (a markup of \$27 billion) for textiles and clothing than they would under a free trade regime.

Even as tariff barriers have declined, the impact of nontariff restrictions has created significant distortions. In particular, incompatibilities between standards and methods of conformity assessment between developed and developing countries disrupt trade and provide implicit protectionism for domestic industries. Similarly, voluntary eco-labeling favors processes and technologies that may be unavailable, unsuitable, or prohibitively expensive for developing countries.

Finally, the protection of intellectual property rights is being strengthened under World Trade Organization rules without adequate consideration of basic human needs in developing countries. Trade-related intellectual property regimes have restricted access to essential drugs and other knowledge-intensive products and services. There is increasing pressure on developing countries to increase intellectual property protection based on the current practices of developed countries. Yet standards that may be suitable for developed countries produce more costs than benefits in poor countries that are large net importers of technology (Commission on Intellectual Property Rights 2002).

Migration

The importance of migration to the economic prospects of developing countries is rising. Given that goods, capital, and ideas have become more mobile, migration makes eminent economic sense and it is proceeding apace. Remittances are five times the amounts of aid to Latin America and the Caribbean. They account for a fifth of Jordan's national income. They are the largest foreign exchange earner of El Salvador, Honduras, and the Dominican Republic.

An abrupt demographic transition has triggered a pent-up demand for migration in OECD countries (Newland 2003). Some migration is due to war, civil conflict, or political persecution. Cultural considerations also intervene. But primary migration is mostly driven by economic factors and the secondary effects (such as family reunification) that flow from it.

Between one-quarter and one-third of migration flows move through illegal channels. Tacit tolerance of illegal migration is widespread, as it fills genuine labor needs in destination countries. However, it induces petty corruption, opens up profitable smuggling opportunities for criminal networks, perpetuates unfair treatment of migrants, and discourages their integration into the fabric of the host country.

Despite the rhetoric of populist politicians, neither the United States nor Europe can be considered "full." There are more deaths than births in 43 percent of the 211 regions that make up the European Union. Even if immigration is taken into account, one out of four regions in Europe has seen its population decline in 2001. Many towns and villages in eastern Germany, the southwest of France, Italy, and Spain are shrinking or even disappearing altogether.

Current immigration policies obstruct the entry of asylum seekers, interdict entry by unskilled migrants, and ration immigration deliberately toward well-trained professionals and skilled workers in high demand. Such discriminatory immigration policies are cumbersome to implement and deliberately induce a "brain drain" and

a “skill drain” from poor to rich countries. Thirty percent of Mexico’s PhDs and three-quarters of Jamaicans with higher education live in the United States. Albania has lost a third of its qualified people.

Environment

Last but not least, the policies of rich countries (emulated by poor countries) are inducing unprecedented pressures on the physical environment. Industrialized countries dominate global environmental management directly through the heavy ecological footprint of their production and consumption patterns, and indirectly through their influence over global regimes governing trade, investment, and the global commons (Seymour 2003).

For example, industrialized countries (home to 20 percent of the world’s population) account for 63 percent of carbon dioxide that has accumulated in the atmosphere since 1900. The United States, with a population of 288 million, is responsible for more emissions than 151 developing countries with a combined population of 2.6 billion people. Climate change threatens the most severe and widespread impacts. A doubling of CO₂ emissions is likely to cause economic losses of 1.6 to 2.7 percent of GDP for developing countries. Small island economies are especially vulnerable. Africa’s food security is likely to be set back. Severe flooding threatens in many parts of Asia.

Equally, fisheries resources are being depleted by the massive subsidies of rich countries (\$15–20 billion a year), and rich-country dominance within governance regimes tends to impede the “development friendliness” of policies and programs. Both within and between countries, the poor suffer most from perverse rich country environmental policies. For example, the poorest countries are least well positioned to adapt to climate change and artisan producers are least well positioned to take advantage of market opportunities created by eco-labeling schemes.

The Case of Bangladesh

Bangladesh illustrates the importance of market-oriented and people-friendly policy reforms in achieving growth and poverty reduction. It also illustrates the need to shift toward a development cooperation paradigm that goes beyond aid and addresses a wider range of rich countries’ policies (Rahman 2003). Ten years ago Bangladesh earned \$1.6 billion from foreign aid, \$2 billion from exports, and \$0.8 billion from remittances. By 2001, aid had shrunk to \$1.4 billion and exports had gone up by more than six times (to \$6.5 billion) despite eroding terms of trade (10 percent over the past two decades). Remittances have gone up by more than twice to \$1.9 billion. FDI is still low (\$222 million), but this is seven times the volume of ten years ago.

Growth over the period has averaged 5 percent a year. As a result, the incidence of absolute poverty has declined from 50 percent to 40 percent of the population. Pro-poor activities by a burgeoning civil society have played a significant role in enhancing the status of women and improving socioeconomic indicators. Literacy levels have increased from 35 percent to 41 percent, and life expectancy has increased from

52 years to 59 years. The rate of population growth has declined from 2.7 percent to 1.6 percent. Access to safe water has improved from 38 percent to 56 percent.

Looking ahead, trade protectionism by rich countries is the largest single stumbling block to further poverty reduction in Bangladesh. Average tariff protection against Bangladesh exports to the United States is 14 percent compared with 1 percent for France. As a result, Bangladesh pays the United States \$331 million in tariffs every year compared with \$330 million by France, even though Bangladesh exports \$2.3 billion to the United States compared with \$24.2 billion of French exports.

Extension to Bangladesh of trade concessions already provided to 34 African least-developed countries and Haiti would yield increased annual exports of \$850 million from Bangladesh. Equally, more foreign investment and migration, freer flows of basic medicines, and adapted agricultural technologies and controls over climate change have fundamental importance to the long-term prospects for poverty reduction in Bangladesh.

Scaled-up Partnerships

The extent and speed with which new metrics, scaled-up instruments, more and better aid, and more comprehensive policy reforms are introduced will determine the prospects for accelerated progress toward the MDGs. But how will such necessary and urgent but highly complex, politically sensitive, and administratively demanding decisions actually come about? The globality and publicness of the actions at stake mean that complex dilemmas of collective action have to be resolved to move ahead and achieve results.

In addition to the peculiar difficulties associated with the financing of public goods, a unique characteristic of global public policies and programs is that the people who stand to benefit the most from reforms do not belong to the same political constituency or even live in the same country as those who have the authority to decide. This means that the normal feedback loops associated with democratic governance do not come into play to produce accountability for results (Martens et al. 2002).

Formal global governance mechanisms, when they exist at all, reflect simpler times when the only protagonists were a score of sovereign states and the international organizations that they controlled (Simmons and de Jonge Oudraat 2001). Today, a galaxy of business associations, voluntary agencies, epistemic communities, and other groups insist on participation given their specialized knowledge and their growing influence. They contribute indispensable data, skills, and energies and act as a useful counterweight to short-term political interests. But their involvement often implies cumbersome negotiations, ineffective decision making, and weak follow up.

In particular, the processes for negotiating, implementing, and monitoring inter-governmental agreements urgently need to be modernized. More than 40,000 treaties and agreements have been registered with the UN Secretariat, and more than 500 multilateral instruments—covering matters such as human rights, disarmament, commodities, refugees, environment, and the Law of the Sea—have been deposited

with the UN Secretary General. But such agreements are years in the making, of varying quality, and—in most cases—lack independent monitoring, verification, and enforcement mechanisms.

Rich and powerful interests tend to dominate since the poor in developing countries—as well as poor countries within the global system—are numerous, weak, dispersed, and diverse in interests. Special networking arrangements are needed to gather their scattered energies, amplify their voice, and give them a seat at the table when global issues are prioritized, policies discussed, and solutions identified—whether within or outside established international organizations.

A wide variety of partnerships will have to be created to scale up the development effort (Rischard 2002). Generic conditions for success include organizational strategies grounded in expertise, reciprocity, cooperation, inclusiveness, transparency, and results orientation. Flexible, issue-oriented global networks involving state and nonstate actors have already demonstrated their utility in standard setting and mission-oriented global activities. They offer a promising organizational alternative (or a useful complement) to the bureaucratic systems currently associated with treaties and conventions, nation-state groupings, and multilateral organizations (Kaul et al. 2003).

Development partnerships are likely to be most effective when characterized by judicious membership rules, reliable information, independent verification, nimble decision making, reliance on modern information technologies, and effective media relations. The logic of scaling up applies to them as well. Depending on their objectives, they emphasize exit, voice, or hierarchical features. They face many of the dilemmas associated with aid delivery mechanisms—high transaction costs, fragmentation, and variable responsiveness to priority social needs. They should bring together mavens, connectors, and salesmen to overcome these dilemmas and achieve a global impact.

Finally, global security is inconceivable without global development. The “demand side” of international terrorism and organized crime is powerfully boosted by social neglect and lack of economic opportunity. Hence, systematic reforms in the economic, social, and environmental policies of rich countries—not just pious statements of intent and paltry aid allocations—are urgently needed both to promote international security and to improve human welfare. For globalization to have a human face, rich countries must level the development playing field and practice what they preach.

Ultimately, the development impact of development actors should be judged not only on their efficacy and efficiency in service delivery measured by score cards but also on their capacity to learn from experience, their performance in mobilizing public opinion behind the tough policy reforms that rich countries should adopt, and their effectiveness in implementing the scaled-up country and global programs that are urgently needed to accelerate progress toward the MDGs.

Conclusion

The proximity of the MDG deadline and the slow pace of progress toward most of the goals suggest that the likelihood of achieving them is slim. But this is not a reason

for giving up on the vision that inspired their lofty design. It is a reason for scaling up the efforts of all development partners toward the agreed goals and trying to catch up. This will require a fundamental reconsideration of how the development business is conceived and administered. Whether or not the goals will be met by 2015, at a later stage, or ever remains to be seen. The agenda laid out in this paper is vast and the obstacles to the realization of the strategy are numerous. But at no time in development history has the nature of the challenge or the consensus about how to meet it been clearer. The true scaling-up challenge is less a matter of strategy than a matter of tactics. It is first and foremost a challenge of political leadership.

Notes

1. Numerous other examples are available in the database of the World Bank's Operations Evaluation Department.
2. Over and above tracking the performance of developing countries and the effectiveness of aid, monitoring of progress toward the Millennium Development Goals by the United Nations as well as regular reporting by the World Bank to its Governors on the quality and quantity of external assistance to developing countries will address the aid and trade dimensions of rich countries' policies (as prescribed by MDG 8). More comprehensive monitoring will be needed.
3. Surprisingly, the index does not take account of the relative importance for poverty reduction of each of its policy components (aid, trade, migration, foreign investment, peace-keeping, and global commons).
4. According to Nicholas Stern, World Bank Senior Vice President and Chief Economist, "the cost of achieving the goals is likely to run at least an additional \$50 billion from rich countries" (Development Committee Spring Meeting Press Conference, April 14, 2003).
5. Donor fragmentation has risen by over 25% percent according to a Background Note prepared by Knack, Stephen, and Rahman for the *World Development Report 2004*. Thus, the Development Gateway now includes records about 340,000 projects. Tanzania alone has nearly 7,000 projects funded by 80 donor organizations.

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ISBN 0-8213-6103-1