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Opportunities and Risks in Central European Finances



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Opportunities and Risks in Central European Finances

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Foreword

The process of European Union (EU) accession and the launch of the Economic and Monetary Union (EMU) pose new opportunities and challenges for the 10 Central European countries (CECs) that are candidates to join the Union. Although eventual membership in the EU, with its well-known benefits, and participation in the EMU will significantly reduce the risks to the CECs of the types of financial crisis that have affected other emerging markets over the last couple of decades, the transition period itself might engender increased vulnerability.

Strengthening their public liability management and achieving significant adjustments in their sovereign borrowing practices and policies are some of the most pertinent issues the CECs need to address. These issues were discussed at the first European Borrowers Network (EBN) event in Brussels on December 15–16, 1997, during a two-day policy workshop, *“EU Accession and Sovereign Debt Management,”* co-chaired and co-funded by the World Bank and the European Commission. The workshop featured presentations by senior debt management officials from the CECs and EU countries, the European Commission, EBRD, IMF, the World Bank, and other institutions. Invited to the seminar and participating in it were all 10 CECs applying to the EU: Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic, and Slovenia.

Following the success of the first EBN event, the World Bank and the European Commission’s Directorate-General for Economic and Financial Affairs received requests from several CECs for events focusing on different topics of interest that would support their efforts to integrate smoothly into the EU. The World Bank and the European Commission joined forces and responded to these requests by organizing the second and third EBN seminars in 1999. Both of these seminars, although they were focused on two very different topics, were pertinent to EU accession.

International capital flows can make recipient economies stronger, but they also potentially can increase the vulnerability of these economies to financial market crisis. This is strongly relevant to the 10 EU accession

candidates because the process of EU accession is likely to raise foreign capital inflows and expand their access to international financial markets and sophisticated financial instruments. In response to this challenge, the subject of the January 7–8, 1999, Paris seminar was “*Private Capital Flows and EU Accession: Implications for Sovereign Liability Management.*”

The seminar’s major goals included:

- Discussing the linkages between private capital flows and sovereign liability management
- Outlining the pillars of a sound policy framework for stable capital flows, and discussing the challenges of creating the proper policy environment
- Facilitating discussions between investors and government officials of the CECs
- Discussing the relationship between private capital flows, the proposed introduction of the euro, and the EU accession process.

The seminar presentations focused on the risks that these developments pose to the candidate countries.

The June 24–25, 1999, Prague seminar’s subject was “*Integrated Financial Sector Regulation and Supervision in the Context of EU Accession.*” Although they are at different stages, all of the CECs are coping with a process of deep change in their financial sectors as a result of liberalization and privatization, institution building, and, in some cases, financial disintermediation. This liberalization process is increasing competition, a process that, while it leads to more efficiency and financial innovation, also may involve increased risk taking. The main goals of the seminar were to:

- Analyze how financial sector supervision and regulation can reduce the sector’s vulnerability to shocks
- Review existing regulatory and supervisory mechanisms in the EU accession countries and how they can be improved
- Discuss next steps in harmonizing financial sector supervision and regulation in the accession countries with the EU *acquis*

Among the reoccurring thoughts and main interrelated themes discussed throughout the seminar were the following:

- What are the “optimal” forms and intensity of regulation and supervision?
- What are the risks of “excessive” regulation?
- How can the best practice and minimum requirements for bank supervision and regulation be developed?
- What are the pros and cons involved in integrated financial sector supervision?
- What are the implications of the EU *acquis* on financial sector development in the CECs?

This publication presents the findings of the Paris and Prague seminars. Part 1 includes papers presented at the Paris seminar examining the nature of capital flows to the region; their dynamics; potential sources of vulnerability, potential costs, and how to manage these risks more effectively. Part 2 contains papers presented at the Prague seminar focusing on the vulnerability of the financial sector and methods of preventing financial crisis. It also contains a selection of Central European country experiences in this field. Part 3 of the publication is composed of selected papers from both seminars discussing policy implications related to adopting the EU *acquis*, the EU accession process, and the EMU and the launch of the euro. This publication will be disseminated through the EBN web page, which can be found on the European Commission’s Europa web site, and through the publications offices of the World Bank and the European Commission. The EBN web page is a good source of general information on the past and ongoing EBN activities; it gives more detailed information on past workshops and seminars, including information on the agenda, speakers and participants, and papers presented; and it is a source for links, partners, and various country resources.



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This publication is the second in the series, and it is an output resulting from two consecutive European Borrowers Network (EBN) seminars, sponsored jointly by the European Commission and the World Bank. The previous publication—*European Union Accession: The Challenges for Public Liability Management in Central Europe*—compiled papers presented at the first EBN workshop in Brussels on December 15–16, 1997, while this publication consolidates the papers and presentations of the second EBN seminar, which took place in Paris on January 7–8, 1999, and the third seminar, which took place in Prague on June 24–25, 1999.

First of all, we would like to thank our partner, the European Commission, for their continuing support in cosponsoring these events, as well as for all the assistance they provided in organizing the seminars. Our special thanks goes to our colleagues at the Directorate-General for Economic and Financial Affairs, especially Messrs. Joly Dixon and Andries Brandsma and Ms. Alexandra Cas Granje, and to our colleagues at the Directorates-General for External Relations and Enlargement.

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We would like to extend a special thanks to the authors of the various papers presented in this publication, who were among the distinguished

speakers at the Paris and Prague seminars. We appreciate their patience and cooperation in putting this volume together. We would like to thank all of our speakers and the participants and experts from the 10 European Union accession countries for their contribution and active participation in both seminars. A complete list of all speakers and participants is included at the end of this publication.

Part 1

Do Capital Flows Make Countries Vulnerable?

Overview

Hana Polackova Brix

The recent emerging market crises in Asia and other regions suggest that while international capital inflows can make recipient economies stronger, they can potentially also increase the vulnerability of these economies to financial market crises. Two of the most notable sources of vulnerability are the quality of domestic financial intermediation, and the speculative nature of some foreign investment flows. Capital inflows can expand productive resources but, sometimes, also fuel rapid asset price inflation. Invested wisely, foreign capital can increase the value of domestic assets, such as domestic currency, bonds, stock, and real estate. However, there is a risk that, improperly channeled, foreign funds can drive up prices well beyond the underlying value of the assets, creating a short-term bubble. These vulnerabilities and risks may be realized by a shift in market sentiment—in the preference and the risk appetite of foreign investors—which may drastically reverse the direction of capital flows. As witnessed in East Asia, such a massive reversal of capital flows can have a devastating impact on emerging-market economies. Explicitly or implicitly, governments may have extended public guarantees to private sector activities—potentially exacerbating the crises, and creating conditions of moral hazard. Government guarantees may encourage risky behavior, while the fiscal burden of any bail-out is shared by many (including the poor) who were not in a position to gain from such activity in the first place.

For the 10 Central European countries (CECs) that are candidates to join the European Union (EU), the process of EU accession is likely to raise foreign capital inflows and expand their access to international financial markets and sophisticated financial instruments. Wiser for the experience of the recent financial crises, the authors of the papers in this section look at the risks that these developments pose to the EU applicants. The first two papers examine the nature of capital flows to the region, seeking to explain its dynamics, and potential sources of vulnerability. The next two appraise some potential costs that could be associated with a financial crisis. The final two papers present views on how to manage these risks more effectively.

Comparative analysis by Nabli *et al* and econometric analysis by Claessens *et al* suggest that progress in economic reforms, and EU accession prospects (assumed to indicate country credit-worthiness) are positively correlated with foreign capital inflows. Nabli and Claessens

explain that in economies suffering from poor financial intermediation, large foreign capital inflows create high credit growth, but are associated with poor and risky credit allocation. The Asian experience particularly cautions against flows to countries with poor systems of financial intermediation. Nabli's comparative analysis of capital flows to five EU accession countries explores all main factors that increase country vulnerability. The paper discounts traditional indicators of vulnerability, and presents a newer set of manifestations of vulnerability. These include current account deficits (changes in the size and composition), real exchange rate misalignment and erosion of competitiveness, size and composition of external liabilities, lending booms and excessive risk taking, distorted borrowing incentives, fragility of the financial systems and corporate governance factors. In agreement with Claessens, Nabli finds that the financial system and its inability to handle large and increasing volumes of capital are a major source of vulnerability in the EU accession countries. Nabli cautions that at this stage of the transition process, it may be more appropriate for economies to manage capital flows under a flexible exchange rate regime, rather than under the EU accession objective of exchange rate stability.

Claessens examines the relationship between capital flows and economic reforms in the CECs and in the former Soviet Union (FSU). They find that official flows have been associated with the financing of fiscal deficits and appear to have been led, rather than followed, by economic reform efforts. However, private capital flows have followed in the wake of reforms—perhaps to a greater degree than in other developing countries. In particular, they argue that private flows respond positively to the buildup of reserves—potentially a proxy for improvements in perceived creditworthiness—as well as to prospective EU membership—reflecting greater economic integration with the West and a greater commitment to future reform. However, they note that increasingly, short-term debt and portfolio flows have become important components of capital flows, and that there is an association between falling domestic savings and increased private capital flows—both potential sources of vulnerability.

Patrick Honohan argues that although the best way to prevent a financial crisis is through a robust regulatory regime, the government should prepare an appropriate fiscal response to potential crises to avoid a rushed response that places a large burden on the public finances if a crisis occurs. After examining some historic responses to banking crises, and reviewing some of the literature, the paper provides a framework to assess the likely fiscal costs of future banking crises that may be prompted by capital outflows. Honohan illustrates how information that is typically available to the authorities could be used to obtain an indication of the order of magnitude of the direct fiscal liability.

Homi Kharas and Deepak Mishra's investigation focuses on fiscal factors associated with international capital flows, and specifically a country's vulnerability to a financial crisis. On the fiscal front, their econometric analysis identifies "hidden" fiscal deficits as the main explanatory variable of financial crises. Hidden fiscal deficits arise from contingent liabilities and from capital losses on public sector debt portfolios. The size and probability of realization of contingent liabilities and the structure of public sector debt thus belong to the leading factors that contribute to country vulnerability. According to their empirical analysis, several EU accession countries, most notably the Czech Republic, have experienced very high hidden deficits. Others, on the other hand, seem to have "over-reported" their deficits, mainly thanks to debt renegotiations (Poland) and capital gains on domestic government debt (Hungary).

Hana Polackova Brixi examines the structure of government fiscal risk management, with the aim of developing a coherent strategy for EU accession countries to control or reduce these risks. She identifies the main sources of government obligations and financial safety in her Fiscal Risk and Hedge Matrixes. Brixi argues that governments can reduce their risk exposures by allowing private insurance to underwrite certain risks. In addition, by utilizing new financial and hedging instruments, governments would be better able to manage the remaining risks. To benefit from these opportunities, however, policy makers need to ask new questions in their policy and institutional decision making.

Mario Blejer and Liliana Schumacher turn their attention to the role that contingent liabilities undertaken by central banks play in financial crises. In Asia (most notably in Thailand), contingent operations of central banks aggravated the consequences of capital outflows and deepened the financial crisis. This is because the proliferation of contingent liabilities distorts the financial statements of central banks, and could compromise central bank solvency. Blejer and Schumacher divide contingent central bank liabilities into explicit (the central bank's role of lender of last resort, operations in derivative markets, and contractual guarantees) and implicit (commitment of central banks to assure the systemic solvency of the banking sector, stable exchange rate regime or, more generally, price stability) commitments. They propose a portfolio approach to all central bank transactions as a way in which both on- and off-balance transactions provide information on the overall solvency of central bank.

Financial Integration, Vulnerabilities to Crisis, and EU Accession in Five Central European Countries

*Mustapha K. Nabli**

Introduction

The recent emerging markets crises have highlighted the risks associated with surges and reversals of capital flows that developing and transition economies face. These risks are particularly significant in the presence of weak financial systems. Given this context, we consider the specific situation of the five Central European countries (CECs), slated to be the first in the region to join the EU—the Czech Republic, Estonia, Hungary, Poland, and Slovenia (CE5).¹ The objective of this paper is to help assess the potential vulnerabilities in five Central European countries as they integrate into the world economy and proceed toward European Union (EU) accession, in the light of the recent financial crisis that started in East Asia.

The CECs are in the process of transforming their economies into open market economies. In addition, they have entered a period of transition toward membership of the EU, which will take place over the next 5–15 years. With widely varying experiences, this economic transformation has, generally, brought about a surge in capital flows to the region. These inflows have been moderated by the impact of the East Asian crisis and its spread to other emerging markets. Nevertheless, in the longer term, the CECs will remain heavy users of foreign capital as they prepare for EU accession and take steps to harmonize their macroeconomic, monetary, and fiscal policies and regulatory frameworks with the *Acquis Communautaire* (see also the paper by Kollias in this conference document). In particular, the more advanced countries among the CECs will benefit from investors' improving risk perceptions. At the same time, greater openness of capital accounts will constrain the flexibility of CECs in using the instruments of macroeconomic and monetary policy.

Two main caveats should be stressed at the outset. First, the experience of the recent East Asia financial crises as well other crises, illustrates that predicting such crises is a very difficult, if not illusory, endeavor. The

causes and unfolding of crises tend to vary and evolve with new features appearing all the time. This study is not, therefore, about predicting any possible crises in the CE5.

What the recent experience and literature have shown is that more attention should be given to the appearance of vulnerabilities, or to warning indicators of the risks of unsustainability. There is still a debate whether crises occur in response to—and are caused only by—fundamentals, or whether they may also occur as a result of “self-fulfilling” attacks. However, it is well recognized that the occurrence of successful “self-fulfilling” attacks can only take place if some vulnerabilities exist. A country that does not have such vulnerabilities cannot be subject to attacks, even though it may be subject to some contagion effects.

While the presence of vulnerabilities may increase the risks of a crisis, they clearly do not imply its occurrence—nor enable its prediction. However, addressing vulnerabilities in a timely manner can contribute significantly to preventing their occurrence. As important, if not more so, are the possibilities of minimizing the costs and disruptions of crises should they occur. Bearing in mind regional and country particularities, and that every crisis is different with distinctive dynamics and ingredients, various sources of vulnerability can and should be identified. This must be part of any strategy for preventing crises.

The second qualification to be borne in mind is that care must be taken in drawing lessons from a crisis in one country (region) for another country (region). More specifically, we need to be cautious in drawing direct inferences from the presence of factors or vulnerabilities contributing to or “causing” crises in economic regions such as East Asia, and their relevance to the Central European countries as they financially integrate. The particular stage of the transition process in these countries, as a group as well as individually, should be taken into consideration.

For these reasons, the analysis of the factors of vulnerabilities related to capital inflows is usefully approached by distinguishing between the “manifestations” of vulnerability and “causal” factors, or sources of vulnerability. The analysis of the “causes” of vulnerability should help assess the significance of the risks associated with the presence of “manifestations” of vulnerability, and help determine the likely preventive actions.²

A comparative analysis approach with two regional groups of countries is used in this report. The first group is made up of the five East Asian countries (Indonesia, Republic of Korea, Malaysia, Philippines and Thailand, or EA5), which are all considered “fast integrators” (i.e., having exhibited relatively rapid integration from the early 1980s to early 1990s, see World Bank, *Global Economic Prospects 1996*), and which have been most affected by the recent financial crisis. The second group is made up of the three Southern Mediterranean countries of Portugal, Greece, and

Spain (SM3), which acceded to the EU in the 1980s and whose experiences are very important to these successor applicants.

The main finding of the paper is that in some of the CE5 countries there are indications that vulnerabilities to financial crisis exist, and that these vulnerabilities are in some aspects similar to those witnessed in East Asia. While the existence of such vulnerabilities should not be taken to mean that a risk of crisis is imminent, it points to the need to undertake or accelerate the reforms required to prevent such occurrences. Vulnerabilities are likely to increase in the medium term owing to many factors, such as:

- The dissipation of the initial benefits and cushions provided by low initial levels of indebtedness and by an initial surge in FDI linked to privatization;
- Larger expected volumes of inflows in the run-up to EU accession and the implied more difficult problems of managing the macroeconomic consequences of these inflows, while macro-stability becomes even more important with EMU; and
- The composition of these inflows, which is likely to contain an increasing share of the more volatile flows.

In the presence of these risks and vulnerabilities, the crucial challenge for the CE5 countries is to be able—given the tight timetable (by historical standards) as they access the EU—to adjust and increase the speed of implementation of institutional reforms in step with the increased volumes of capital flows and the required capacity to fully benefit from these inflows. As the experience of the SM3 demonstrates, the success in obtaining the benefits of the capital inflows depends crucially on the capacity and the speed at which a country implements the required reforms compared to that of increased capital inflows. Some of the most relevant and important institutions include: the financial sector, public administration, the system of enforcement of property rights, and corporate governance. It is therefore important to work today on the conditions for successful integration. The main findings and messages of this paper are:

- Thus far, as they prepare for EU membership, the five ECA countries have already experienced considerable opening of their economies and substantial capital inflows by historical standards, owing to a mixture of special circumstances: transition, special agreements with the EU, and an international environment where private capital flows surged in the 1990s until late 1997.

- Similar to other emerging markets, the CE5 countries face the risks of a global and persistent retrenchment and increased interest rates, following the Russian moratorium. But, barring a total collapse of capital flows and a world recession, given their strong reform programs, their overall links to the EU—and greater trade integration than that of the SM3 at their accession in the 1980s—the CE5 are likely to avoid significant contagion effects, and continue to attract a large size of capital inflows during their run-up to accession to the EU.
- The large size of capital inflows in the early stages of transition has probably been effectively used in most cases, and helped increase growth and standards of living. But as these inflows continue, and the initial stock adjustments are completed, countries need to make sure these resources are effectively used and their benefits—in terms of increased capital accumulation and productivity growth—are not outweighed by the risks and vulnerabilities they create. The quality of intermediation of these capital flows should be a major concern.
- A major source of vulnerability in the CE5 countries is their nascent financial systems and their ability to handle large and increasing volumes of capital. As the experience of East Asia demonstrates, a high priority should be given to improving the quality and performance of the banking system. These risks are apparently compounded by the problems of corporate governance (and the links of financial system with corporate bodies, particularly SOEs and emerging private enterprise groups), which we have not been able to explore in this paper.
- For macroeconomic management, there are significant trade-offs and problems of effectiveness of macro-policy instruments. Fixed or quasi-fixed exchange rates help anchor expectations and reduce uncertainty (with currency boards providing stronger credibility to the nominal anchor). However, when associated with large capital flows and the desire to have an autonomous monetary policy, they also introduce many risks. Countries with more flexible exchange arrangements have been able to respond better to the increases in capital inflows. But they lose the nominal anchor provided by fixed exchange rates, and face higher risks of volatility and misalignment of real exchange rates. The trade-offs are difficult to manage, and unless a country is credibly committed to a fixed exchange rate under a currency board arrangement, greater exchange rate flexibility is generally desirable.
- The volatile international environment and the unsettling effects of the spreading East Asia crisis make it a priority for the CE5 to undertake

needed reforms. While the real effects (more competitive exports of EA5) on the CE5 may be expected to be small or compensated by the benefits of their close association with the EU, the risks from financial instability are much larger. They may result from a reversal of trends on international interest rates and/or contagion effects from crisis in other transition or developing economies.

I. The Manifestations of Vulnerability

In this section, the evidence of manifestations of vulnerability or the presence of factors of an unsustainable external position—and the attendant risks of a reversal of capital flows—are reviewed. The manifestations of vulnerability discussed are those found most relevant in the analysis of currency crises and sustainability.³ The presence of such manifestations are not sufficient to determine the likelihood of crisis or reversal of market sentiment. They have to be supplemented by additional analysis of the presence of fundamental weaknesses or factors of vulnerability.

The following discussion will not focus on any of the “older” types of indicators of vulnerability—such as external indebtedness, inflation, and public sector deficits. These factors are less important, and hardly present in the CE5 or in the comparison countries (with the exception of Greece) as can be seen from table 1. At the end of 1996, the debt to exports ratios were low and varied from 12% in Estonia to 132% for Hungary, and are similar to the EA5 and SM3 countries. Indonesia in 1996 and Greece in the 1980s had, however, much higher ratios (higher than 200%). Fiscal deficits were also lower than 2% in most countries in 1996 and 1997.

Only Hungary had an increased deficit in 1997, reflecting the drop-off in privatization proceeds from the high 1996 level.⁴ Fiscal deficits were higher in the SM3 countries, particularly in Greece. Inflation was falling in all countries, and by 1997 was lower than 20% in all countries, but remained higher than in EA5 countries. GDP growth was increasing, reaching about 7% in 1997 in Estonia and Poland. It was lower in Estonia but improving. The Czech Republic experienced a major slowdown since 1995.

This paper focuses on “newer” indicators. The most important “manifestations” of vulnerability relate to: the existence of a large and/or increasing current account deficits, the existence of real exchange rate misalignment and a loss of competitiveness, a composition of external liabilities biased toward more volatile flows, and the presence of domestic lending booms, asset price bubbles, and excessive risk-taking. This set includes the main factors of vulnerability discussed in the literature on financial crises. The empirical evidence about the significance of these factors as “determinants” or “warning indicators,” in formal statistical

Table 1. Traditional Indicators of Vulnerability

Indicator	Country						Country						Country						
Real GDP																			
Growth (%)	CE5	1993	1994	1995	1996	1997	EA5	1993	1994	1995	1996	1997	SM3	1981	1982	1983	1984	1985	1986
	Czech Rep.	0.6	2.7	5.9	4.1	1.5	Indonesia	6.5	7.5	8.2	8.0	4.7	Greece	0.1	0.4	0.4	2.7	3.1	1.6
	Estonia	-8.2	-1.8	4.3	4.0	7.0	Korea	5.8	8.6	8.9	7.1	5.5		1986	1987	1988	1989	1990	1991
	Hungary	-0.8	2.9	1.5	1.0	3.0	Malaysia	8.3	9.2	9.5	8.6	8.1	Portugal	4.1	5.1	4	4.9	4.1	2.1
	Poland	3.8	5.2	7.0	6.1	6.9	Philippines	2.1	4.4	4.8	5.7	5.1	Spain	3.2	5.6	5.1	4.8	3.7	2.3
	Slovenia	2.8	5.3	4.1	3.1	3.7	Thailand	8.4	8.9	8.8	5.5	-0.4							
Inflation (%)	CE5	1993	1994	1995	1996	1997	EA5	1993	1994	1995	1996	1997	SM3	1981	1982	1983	1984	1985	1986
	Czech Rep.		10.1	9.1	8.8	8.4	Indonesia	9.6	8.5	9.4	8.0	6.5	Greece	24.5	20.9	20.2	18.4	19.3	23.0
	Estonia	89.8	47.7	28.8	23.1	11.2	Korea	4.8	6.2	4.5	5.0	4.4		1986	1987	1988	1989	1990	1991
	Hungary	22.5	18.9	28.3	23.5	18.3	Malaysia	3.6	3.7	5.3	3.6	2.7	Portugal	11.7	9.4	9.6	12.6	13.4	11.4
	Poland	36.9	33.3	26.8	20.1	15.9	Philippines	7.6	9.1	8.1	8.4	5.1	Spain	8.8	5.2	4.8	6.8	6.7	5.9
	Slovenia	31.9	19.8	12.6	9.7	9.1	Thailand	3.4	5.1	5.8	5.9	—							
Debt/Export Ratio (%)	CE5	1993	1994	1995	1996	1997	EA5	1993	1994	1995	1996	1997	SM3	1981	1982	1983	1984	1985	1986
	Czech Rep.	47.1	48.7	55.3	64.7	—	Indonesia	212.6	231.8	234.1	221.4	—	Greece	—	—	182.5	195.1	262.7	262.0
	Estonia	13.1	9.9	10.2	12.3	—	Korea	69.9	76.1	75.1	91.6	—		1986	1987	1988	1989	1990	1991
	Hungary	212.9	246.2	175.4	132.1	—	Malaysia	47.8	42.7	40	42.4	—	Portugal	132.4	113.2	97.8	97.7	89.4	103.4
	Poland	246.0	162.7	112.8	103.2	—	Philippines	187.3	163.4	118.5	97.6	—	Spain	—	—	90.1	78.8	79.2	70.7
	Slovenia	25.0	25.2	28.4	36.8	—	Thailand	106.2	111.7	112.2	120.5	—							
Fiscal Bal. (% of GDP)	CE5	1993	1994	1995	1996	1997	EA5	1993	1994	1995	1996	1997	SM3	1981	1982	1983	1984	1985	1986
	Czech Rep.	1.3	0.4	-0.7	-1.0	-1.7	Indonesia	0.6	0.9	2.2	1.2	-0.3	Greece	-8.6	-6.8	-9.2	-9.2	-12.7	-9.4
	Estonia	-0.6	1.3	-1.2	-1.5	-0.6	Korea	0.6	0.3	0.3	0.1	0.6		1986	1987	1988	1989	1990	1991
	Hungary	-7.6	-6.4	-3.7	-0.2	-4.5	Malaysia	0.2	2.3	0.9	0.7	2.7	Portugal	-10.7	-9.1	-7.5	-3.5	-4.7	-6.0
	Poland	-2.9	-2.5	-2.3	-2.5	-1.7	Philippines	-1.5	1.1	0.6	0.3	0.1	Spain	-6.0	-4.5	-0.4	-3.3	-3.3	-3.2
	Slovenia	0.3	-0.2	0.0	-0.3	-1.5	Thailand	2.1	1.9	2.9	2.3	1.6							

— Not available.

Note: Debt/export ratio is defined as total external debt to exports of goods and services (including workers' remittances).

Sources: *International Financial Statistics*, April 1998, IMF; and for Debt/Export ratio, *Global Development Finance*, 1998, World Bank.

models of determination of probability of financial crisis or in less formal analyses of financial crises, varies. Some have been more consistently found to be significant determinants than others.

Each of these factors is reviewed below. We do not use quantitative “signals” of significance such as thresholds for these indicators. The discussion will be more qualitative and based on country comparisons and will not go into the details of each country.

Large and/or Increasing Current Account Deficits

Current account deficits by themselves have not been found to be helpful in predicting crisis and in determining unsustainability. While the rule that a current account deficit greater than 5% as an indicator of vulnerability is often used, no empirical evidence supports it. However, current account deficits remain important in assessing vulnerability, if complemented with analysis of the causal factors of the large or increasing deficit. Large and/or rapidly increasing deficits should always be monitored with concern.

More telling than the growth in the current account deficit is the decomposition of the change in the deficit into changes in the rates of investment and savings. The data show, in all cases—excluding Estonia and Greece—the deterioration of the current account deficit was associated with a significant increase in the rate of investment. Usually, the increase in investment was equal to or larger than the deterioration of the current account deficit, because the savings rate did not change (or changed little, as in Thailand) or even increased.⁵ Slovenia, like Portugal, had a decline in savings and increase in investment.

The decline in savings rates in the CE5 countries may be a temporary phenomenon, reflecting the adjustment of present consumption to desired levels of permanent consumption—which is in line with increased permanent incomes, owing to higher productivity and efficiency. This factor would imply less weight should be given to reduced rates of savings. However, the extent of this decline in some cases, such as Estonia, is difficult to interpret in these terms. There may be over-optimistic growth expectations, or an easing of financial constraints on consumers, making the increase in consumption unsustainable.

The East Asian crisis has also shown that increases in investment associated with surges in capital inflows may be a source of vulnerability. There is evidence that the increased investment was directed more toward non-tradables, and was associated with a decline in the productivity of capital.⁶ This factor may not be as relevant in the case of the CE5 countries because of their stage of transition and recovery, and because of the generally lower rates of investment than in the EA5. But it may be

present, nevertheless, in some cases. This issue may require further investigation.

Real Exchange Rate Misalignment and Competitiveness

Real exchange rate appreciation is consistently found in almost all studies to be one of the most significant indicators of vulnerability leading to a currency crisis. The consumer price index (CPI)-based real effective exchange rate (REER) has appreciated considerably in all CE5 countries during the inflow period. The extent of REER appreciation is strongly related to the exchange rate arrangement. The largest rate of appreciation is in the Czech Republic and Estonia, which have both followed a fixed exchange rate (with a currency board in the case of Estonia).⁷ Poland, which had a crawling peg, witnessed a lower rate of appreciation, while in Hungary and Slovenia, which both had more flexible exchange rate arrangements, the rate of appreciation was much lower. While the extent of real appreciation of the exchange rate is smaller when a unit labor costs (ULC)-based REER is used (available for a few cases only), the basic fact is the persistence of real exchange rate appreciation. This contrasts with the experience of the EA5, which did not experience significant movement in the REER before 1996. A major change for them occurred, however, in 1996 when the REER appreciated in all cases, sometimes by a significant amount. For the SM3 we observe appreciation in the case of Spain, but real exchange rate depreciation for Portugal and Greece.

The significance of real exchange rate appreciation has been subject to some controversy in the context of the transition economies. Some have argued that these changes in the real exchange rates reflect price adjustments in response to fundamental factors. They may reflect any or all of the following fundamentals: shifts and gains in productivity as the economies move to a more market-oriented, more efficient economy, correction of earlier excessive depreciation, increased levels of consumption to equilibrium levels consistent with higher permanent income (and need to incur current account deficits), and “bunching” of FDI at the early stage of transition, which is non-tradable-goods-intensive.⁸ Others argue that REER appreciation reflects a misalignment of exchange rates caused by the exchange rate peg and/or speculative unsustainable levels of capital flows that result in higher nominal exchange rates and/or higher inflation, depending on the monetary policy pursued.

Regardless of the cause of the appreciation, it is striking that the movements of the REER are not a good indicator of the behavior of exports and competitiveness. Among the CE5, in Estonia and Poland, where the REER appreciated considerably, exports volumes also increased significantly. In contrast, Slovenia and Hungary, with the lowest rates of REER apprecia-

tion, had low export growth, even negative when adjusted by world trade growth, implying loss of market share. The same observation can also be made for EA5 and SM3 countries. The extent of REER appreciation in 1996 does not explain the change of rate of growth of exports between the previous period and 1996. The Philippines, which had the highest rate of appreciation, had the highest rate of growth of exports that consistently increased. In contrast, Thailand with a large appreciation, experienced a dramatic drop in exports growth.⁹

Size and Composition of External Liabilities

The size and composition of a country's external liabilities, both of the corporate sector and the banking sector (including the government), may also constitute a major source of vulnerability to a currency crisis. Maturity mismatches may be a factor when short-term and, more generally, more volatile or liquid liabilities constitute a significant share of total liabilities. Currency mismatches (and their change) between the liabilities and assets (or expected revenue) of firms and banks constitute another source of vulnerability, making the country more prone to currency crises.

At the end of 1996, the CE5 countries, like the EA5, (except Indonesia), had relatively low debt/exports ratios. Some of them, such as Estonia, Slovenia, and Malaysia, had extremely low ratios. It is the composition of debt, however, which has more significance for vulnerability to currency attacks. The East Asian countries of Thailand, Indonesia, and Korea were the most vulnerable, in view of the fact that more than two-thirds of debt to BIS reporting banks was short term and the ratio of short-term debt to reserves ranged from 100 to 200%. Thailand, in particular, saw the most dramatic accumulation of non-FDI private-to-private capital flows (to a large extent probably short-term and volatile capital) over the last 8 years, representing 46% of GDP. The CE5 were in a better position with lower short-term debt indicators. Only the Czech Republic and Estonia have been accumulating short-term liabilities at a fast rate, thereby creating some vulnerability, but the short-term debt to reserves ratios are still low.

As for the banking system, because of lack of data on the composition of assets and liabilities in terms of maturity and currency exposure, we have used only one indicator: the ratio of foreign assets to foreign liabilities as a (very rough) proxy measure of foreign currency exposure of the banking system or of international liquidity. It may overestimate currency exposure if banks lend to the domestic non-financial sector in foreign currency. This, however, often shifts the currency risk to credit risk, since domestic firms would carry the currency risk and become more vulnerable. The overestimation may also result if banks pass the exchange rate

risk to their creditors, but this is unlikely for most developing countries' banks. In terms of liquidity the maturity structure of these assets and liabilities is not taken into account.

The CE5 countries, overall, are in a better position with regard to foreign currency exposure of the banks. The ratios of foreign assets to liabilities are generally higher than those of the EA5. However, they differ significantly in terms of the recent changes of this ratio. Hungary and the Czech Republic were the first to witness a rapid deterioration, leading to ratios smaller than unity in 1994–95. This is clearly related to the problems they encountered in 1995 and 1997, respectively. Estonia presents the case with the more recent, but most rapid, deterioration, as the ratio fell below unity in 1997 from a much higher multiple in the previous years. Poland and Slovenia present less vulnerability.

Comparing the CE5 experience to that of the EA5 for the period of the run-up to the recent crisis, we observe that Thailand saw the most dramatic deterioration in its currency exposure from an already very low initial level of the ratio of foreign assets to liabilities. The Philippines also witnessed a similar deterioration, leading to high vulnerability. Malaysia and Korea were also experiencing a deterioration, but to a far lesser extent. The SM3 countries had a lower foreign asset/liability ratio (particularly Greece and Portugal), but there was no significant deterioration during the periods considered.

The foreign currency exposure on non-banks, financial and non-financial institutions, may also play a significant role. For instance, in Thailand and the Philippines, non-bank financial institutions increased their foreign currency exposure by significant amounts, contributing to the fragility of the financial system.

Another related indicator, which has proved very useful in assessing a country's vulnerability to attacks against its currency, is the ratio of monetary assets to foreign reserves (M2/Reserves). Considering the M2/Reserves ratio, only Estonia shows a significant deterioration of the indicator in 1996–97. It increased also for the Czech Republic in 1996 and again in the second half of 1997. For the other countries, it was stable or improving. Similarly for the East Asian countries, only Malaysia experienced some deterioration in 1995–96.

Lending Booms, Asset Bubbles, and Excessive Risk Taking

Lending booms have been found to be significant indicators of vulnerability. Fast credit growth, often financed through external borrowing, can cause a deterioration in the portfolio quality of banks. It leads to excessive risk taking, including increased exposure to sectors susceptible to asset price bubbles, such as real estate and the stock market. During the

lending boom, profitability of banks may even improve in the short run hiding the implied risks, which would appear when growth slows down or negative shocks occur. We have focused on a few macro indicators, but a full assessment of these sources of vulnerability would require more detailed analysis of the various factors.

Among the CE5 countries, Estonia shows a dramatic lending boom with real credit growth averaging 26.5% per year over five years and 63% over 1996–97. The loan to GDP ratio, and loan to deposit ratios, also increase dramatically. The stock market experienced also a dramatic boom and increased by 157% from January to August 1997. The other countries have not experienced any boom in credit. The stock markets of the Czech Republic and Slovenia did not experience any significant increases throughout the period. In Poland there was a large upsurge in 1996, but the market then went on a downward trend. In Hungary also the stock market increased significantly in 1996 and early 1997. Two Asian countries, Thailand and the Philippines, also experienced credit booms in the period 1993–96. For the period 1993–96 in the Philippines, real credit growth was 43% per year, and loan/GDP and loan/deposit ratios increased by 45 and 68 points, respectively. In Thailand, the loan/GDP and loan/deposit rates increased by 25.6 and 28.2 points, respectively, between 1992 and 1996.

Direct information about indicators of quality of banks' portfolio is limited. Based on two indicators, loan-loss provisions and rate of non-performing loans (subject to the comparability of data) the Czech Republic appears to have the most vulnerable banking system, while Estonia's financial system improved. Poland and Slovenia also continue to experience difficulties in their banking systems. While comparison with East Asian countries is difficult, it is worth noting that, for the period leading to the crisis, the EA5 countries saw an increase in the rate of non-performing loans. By the end of 1997 (which includes already some effect of the crisis), they reached 11% of total assets in Indonesia, 16% in Korea, 7.5% in Malaysia, 5.5% in the Philippines, and 15% in Thailand.¹⁰ Among the factors contributing to the deterioration of portfolio quality is the increased exposure to the real estate and stock market. This exposure was particularly important for some countries, particularly Thailand, Indonesia, and to a lesser extent, the Philippines.¹¹

II. Interpretation and Implications

Interpreting the manifestations of vulnerability discussed in the previous section and drawing lessons and policy implications for Central European countries requires a careful examination of their similarities and differences with the other regions' experience, as well as a closer

assessment of the presence of “causal factors” of crisis. The initial conditions at the time of surge in capital flows are particularly important. The international environment and external shocks are also crucial for near-to medium-term prospects.

Initial Conditions

A first general comparison of the three groups of countries shows that the experience of the EA5 and SM3 is relevant and useful for the CE5, since they share the common characteristics of fast trade and financial integration, and a similar range of income levels and human capital development. They also show a similar robust performance with regard to the level of integration in the last decade. Indicators for trade and capital flows for the CE5 are on the high side compared to high income and developing countries, even in comparison to the East Asian and SM3 countries.

The triggering factors in the surge in capital flows in the CE5 are the extensive privatization programs, and the improved economic prospects following the first stage of transition reforms and the resumption of growth (see Claessens et al in this conference document). The granting of investment grade ratings by the major international agencies seems to have played a significant role, since it coincides in most cases with the surge in non-FDI flows.¹² These factors are clearly specific to the CE5 and their stage of financial integration. The EA5 and SM3 countries have been receiving significant amounts of private capital inflows for a longer time period, and the recent surge reflects varying combinations of domestic-pull and external-push factors. In the case of the Philippines, domestic reforms and resumption of growth factors are more similar to the CE5. For the other East Asian countries, it is interesting to note that three of them received investment grade ratings (new or up-grade) during this period: Indonesia in March 1994, Thailand in October 1995, Malaysia in March 1993, and Korea in April 1990. Considering the SM3 countries, accession to the EC was the most significant factor, and for Portugal and Spain coincided with receiving investment grade ratings (1986 for Portugal and 1988 for Spain).

These differences, in terms of triggering factors, indicate that the surge of capital inflows in the CE5 has a large temporary component linked to transition and the initial stock adjustment of portfolios, as well as the increases in present (and future) levels of consumption based on higher expected future incomes. As measured by total indebtedness as a share of GDP, at the beginning of the surge in capital flows there is no consistent pattern in the CE5 or the EA5 countries—indebtedness in both groups varies from very low percentage shares, (for example, in Estonia and

Korea), to quite high percentages, (for example, in Hungary and the Philippines). However, considering the breakdown of total debt, the Central European countries all had low levels of private non-guaranteed debt (PNG, measured as a share of GDP) compared to the EA5. The highest ratio of PNG debt to GDP among the CE5, in Slovenia, is comparable to the lowest among the EA5, in Korea and Philippines, specifically. These differences show the scope for private portfolio adjustments for both foreign and domestic investors through cross-border asset transactions. Notwithstanding, FDI stock liability to GDP ratios indicate that the CE5 had already accumulated a significant volume comparable to, if not exceeding, that of EA5 countries, with the exception of Malaysia, with the highest ratio of 31.6 percent.

Compared to the EA5 countries, CE5 countries had lower rates of savings and investment, excluding the Philippines. Aside from the Czech Republic—where investment recovered from low levels of the early transition period—the other Central European countries still had low rates of investment at the time of the surge in non-FDI flows. Until 1993, the CE5 countries had witnessed a higher rate of increase (or lower rate of decline) in consumption than investment.¹³ This shows that these countries were still adjusting their consumption levels, as well as investment, in relation to permanent income increases expected from the reform process and the implied productivity increases—with low GDP growth rates at this stage, as they were just recovering from recession.

It is also important to consider the history of financial crisis at the time of surge in capital flows. All of the CE5 countries went through major bank distress and restructuring episodes during the early transition phase, and were still in the process of dealing with them at the beginning of the private capital inflows. Four of the EA5 countries had significant or major banking problems in the mid-1980s, most of which were resolved by the early 1990s. Indonesia, however, was experiencing a banking crisis in 1994, comparable to the situation in the CE5. Among the SM3, Spain had a major banking crisis during the period 1977–85 preceding accession, while Portugal and Greece were able to avoid any major banking crises. Unlike most of the comparison countries (excluding Indonesia) the CE5 were having significant banking problems at the time of the surge in capital flows. This created additional and specific vulnerabilities, particularly since these countries had no experience in dealing with banking sector distress and insolvency. While some East Asian countries did experience balance-of-payment crises in the past (Indonesia, Thailand, and Philippines at the end of the 1970s and during the 1980s, Malaysia in 1975) the CE5 did not have experience with significant currency crises.

The CE5 countries varied considerably in terms of their capital account openness and exchange rate management at the beginning—and during

most of the period until 1997—of the surge in capital inflows. They all had current account convertibility, accepting IMF Article VIII over the period 1994–96. Estonia established a currency board, with a peg of the exchange rate to the D-Mark, and had full capital account convertibility. At the other extreme Slovenia followed a managed float of the exchange rate and continued to have a restrictive capital account regime. It maintained controls on portfolio flows, credit, real estate investment, and even some controls on FDI. The EBRD index of capital account liberalization was 40 (out of a maximum of 100) at the end of 1997.¹⁴ The Czech Republic had a pegged exchange rate policy, with no controls on foreign direct investment, but maintained some restrictions on other capital account transactions. Hungary and Poland pursued a more flexible exchange rate policy, had no controls on foreign direct investment, but also maintained more restrictions on the capital account by the end of 1997 than the Czech Republic.¹⁵ The latter three countries are committed to abolishing the remaining capital controls within the next few years in the context of their OECD membership. The same variation in conditions was also to be found in the EA5, with Thailand having the most stable exchange rate and openness of the capital account.

The “Causal” Factors or Sources of Vulnerability

As the discussion of the overall assessment of vulnerability for the various countries shows, the presence of vulnerabilities may be used as warning indicators of increased probability of crises and not a predictor of a crisis happening. What appears to be a vulnerability, such as an appreciation in the real exchange rate or decline in the savings rate, may be just a normal economic adjustment taking place.

A central issue for the CE5 countries is to determine the extent to which the surge and magnitude of capital flows is a response to “fundamentals”—that is, improved prospects for growth and higher rates of return on capital—or whether at least some of these inflows are in response to some distorted incentives, creating vulnerability, and, therefore, are temporary and much more subject to reversals. But, even if most of the capital inflows are in response to “fundamentals,” the presence of some “causal” factors of vulnerability at the same time as these possible vulnerabilities are observed should be taken into account.

It is difficult to arrive at a clear and definite conclusion about this issue. However, one way to shed some light on the issue is to complement the analysis of vulnerabilities by looking at some possible causes, such as inappropriate policies, the existence of distorted incentives, or inadequate institutions. This would give more significance to the manifestations of vulnerability and may point out to directions for corrective

actions and policies. The analysis of "causes," which are associated with the presence of vulnerability, highlights some possible areas of concern for each country. The major concerns are as follows:

- The existence of large interest rate differentials that may induce excessive foreign borrowing;
- The systems of fixed or quasi-fixed rates that appear to be associated with larger real exchange rate appreciation, and the underestimation of exchange risk increases incentives for foreign borrowing; and
- The quality of the financial system, which helps mitigate the risks created from other sources of vulnerability in some cases, but may also aggravate them in others.

Many CE5 countries did benefit from low initial levels of indebtedness and from an initial surge in FDI linked to privatization. This reduced the risks of the rapid surge in capital inflows during this stage. As their debt and liabilities ratios rise and the possibilities of attracting FDI through privatization are reduced, they are likely to see increased vulnerability associated with the same level of capital inflows, since more short-term and volatile flows shares will increase.

Macro-Policies and Distorted Incentives for Excessive External Borrowing

Considering the experience of the East Asian countries first, the response to increased capital inflows to the region created, along with their macro-policies, incentives for excessive borrowing abroad by financial institutions and/or non-financial enterprises. While fiscal policy was mostly conservative, even contractionary, and the fiscal balances were strong during the period leading to crisis, fiscal policy was (could) not be used to compensate for the increased demand pressures from the private sector. In many cases the fiscal impulse even turned positive.

The authorities had to rely almost exclusively on monetary policy to deal with the effects of the capital inflow. It took the form of sterilized intervention, which induced higher domestic interest rates and increased differentials with foreign rates. This incentive was largest and most consistently strong in Thailand and Indonesia for the whole period up to the July 1997. It also became significant and positive in the Philippines from 1994 until the crisis. Consequently, foreign borrowing and increased capital inflows were fostered and were further enhanced through implicit or explicit government guarantees.

At the same time, the exchange rate policies, which succeeded in achieving pegged rates or low variability with a managed float, reduced perceptions of risk. This induced economic agents to underestimate exchange risk and accumulate un-hedged foreign currency liabilities. As a very crude measure of exchange risk, we have used the standard deviation of the monthly rate of change of the nominal exchange rate (against the \$US for EA5) for the period 1994–96. Again, this reduced perception of risk is most evident for Thailand and Indonesia as indicated by their low standard-deviation, lowest among the EA5.

The combined effect of these policies was strongest in Thailand and Indonesia, both of which had fairly constant and/or very predictable exchange rates and large interest rate differentials. Korea and Malaysia also had positive but lower interest differentials, although exchange rates were more variable and unpredictable reducing the incentives for external borrowing. The Philippines experienced a decline in interest differentials from 1992–93 to 1994–96 and reduced incentives for external borrowing, even though the exchange rate was stable.

Turning to the CE5, fiscal policy there was also primarily contractionary during the inflow period. These official figures, however, do not account for many contingent liabilities, such as those arising from the restructuring of banking sectors. The Czech Republic, Hungary, and Poland went from large deficits to budget surpluses. Estonia and Slovenia were realizing low fiscal deficits. Nevertheless, in all cases, the fiscal stance did not compensate for the expansionary effects of the large volumes of capital inflows. Monetary policy was the main instrument of adjustment. In each of the CE5, the governments intervened in the exchange market to prevent appreciation and accumulated large amounts of foreign reserves. This reserve accumulation not only corrected for the large losses of reserves during the previous early transition period, but went well beyond. The exchange market intervention was often accompanied by sterilization, which consequently prevented domestic interest rates from either falling or falling further.

During the early years, 1993–94, the incentives to borrow abroad were strongest in the Czech Republic and Hungary. This is consistent with the early surge of capital inflows into the two countries. While the process continued for the Czech Republic until 1997, it reversed in Hungary in 1995 following the crisis, after which it recovered and increased significantly again in 1996–97. The incentives to borrow abroad became clearly positive and significant in Poland and Slovenia in 1996 and 1997, consistent with the surge of non-FDI inflows to these countries during that period. The numbers for Estonia show no significant interest differentials. The differentials are misleading, however,

since the inter-bank interest rate was very close to the LIBOR DM rate owing to complete capital account convertibility and the currency board with a fixed peg to the DM. If time deposit or lending rates are used instead, the differential in interest rates is very large and positive.

The exchange rate risk, as measured by the standard deviation of the nominal exchange rate (relative to the DM), is related to the exchange rate arrangement system. It is lowest in Estonia and the Czech Republic, both of which had pegged exchange rates during the periods considered. In contrast, the standard deviations are much larger in Hungary and Poland, where more flexible exchange rate regimes are pursued.

Similar to the EA countries, monetary policies and exchange rate arrangements seem to have created, to varying degrees and at different periods, distorted incentives to borrow abroad. These distortions can also be associated with the volume of capital inflows. This seems to be the case for the Czech Republic until the crisis of 1997, and for Hungary until the crisis of 1995. The presence of such incentives is also evident in Estonia, probably more so since 1996. The more recent experiences in Poland and Slovenia point to the same set of circumstances and warrant closer scrutiny.

The East Asia experience has also shown that "supply" factors of external finance played a role. Foreign banks in particular seem to have exercised less than adequate risk analysis, and tended to lend too easily to domestic banks and companies. The CE5 countries benefit from similar or better credit ratings than the EA5 countries. There may be reasons to suppose that such predisposition to lend to CE5 banks and companies exists also. Given that European banks were more active and exposed than U.S. banks in East Asia, and that they are also the most active in the CE5 countries would support such a view.

Fragility of the Financial Systems

Weak and increasingly fragile banking systems are now commonly understood to be the single most important factor contributing to the vulnerability in the Asian economies preceding the crisis.¹⁶ As discussed above, lending booms and a deterioration in the quality of the portfolio of the banking system are manifestations of this increased vulnerability. Surges in capital flows, especially if "push" driven, can contribute to the appearance of these lending booms. However, more important, these weaknesses can be linked in most cases to increased competition following liberalization, while the regulatory and supervisory frameworks did not adapt fast enough. The combined effect of these factors for East Asian countries was very large, with increased fragility most notably in Korea, Thailand, and Indonesia.¹⁷

Initial Conditions, Capability, and Incentives

Any comparison of the banking systems in the CE5 with the East Asian countries should take into consideration the initial conditions. All of the CE5 banking systems can be considered as nascent and, as of the mid-1990s, emerging from the crises and restructuring following the first stage of transition. They all experienced banking problems, leading to re-capitalization, closure of banks, and the state assuming most, if not all, of the non-performing loans. However, countries varied as to the extent of resolution of their problems. Estonia seems to be the most successful in restructuring its banking system, achieving relative health by 1995. Banks in Poland and Hungary have also considerably improved the quality of their portfolios, as has Slovenia, albeit to a lesser extent. There was, however, less success and even a worsening of the situation in the Czech Republic. In addition, banking systems in the CE5 countries continue to face the implications of the ongoing transition particularly with respect to the burden of state-owned enterprises. They also need to improve their capability in view of the scarcity of skills and know-how.

Liberalization and Competition

Domestic and external liberalization, which induces more competition in the banking system, may lead to increased risk taking and a deterioration in the quality of portfolios, even in the absence of lending booms. The presence of the latter increases the risks. Following liberalization, competition in the domestic banking sector may increase through the following channels:

- Among domestic banks, following the lifting of restrictions on interest rates and direct central bank controls;
- From newly developed non-bank financial institutions;
- The expansion of capital markets, providing alternative sources of finance to firms;
- The access of the corporate sector (especially by the most creditworthy) to external finance;¹⁸ and
- The entry of foreign banks.

In the case of the East Asian countries, the importance of these factors varied considerably from one country to another, but most contributed to the increased fragility of the financial system.

The banking systems of the CE5 countries have also been subject to increased competition from all of these sources. Practically all of the countries, with the exception of Slovenia, had achieved fairly liberalized domestic financial systems, and the market share of foreign banks increased considerably. Non-bank financial institutions as well as capital markets developed rapidly in all countries. As a result a very strong competitive banking sector has developed in both Estonia and Poland. Competition has also been increasing in the Czech Republic, and to a more limited degree in Hungary and Slovenia. There does not, however, appear to be a clear correlation between liberalization, competition, and soundness of the banking systems in the CE5.

Regulation and Supervision

In the EA countries as liberalization deepened and competition increased, the regulatory and supervisory frameworks did not adapt fast enough in most countries, or was late in becoming effective. This contributed to the build-up of vulnerability in the banking system. The following is a brief discussion of some of the main regulatory issues and of supervision in the CE5 countries compared to the EA5 countries.

- Capital adequacy requirements. By the end of 1996, four of the EA5 had adopted the Basel Committee on Bank Supervision rule on capital adequacy requiring an 8% ratio of capital to risk-weighted assets.¹⁹ The Philippines uses a different ratio of net worth to risk-weighted assets of 10%. The actual ratios are generally higher than 8%, but Korea and Thailand were insufficiently capitalized.²⁰ The CE5 have also adopted the Basel Committee regulations and on average the actual risk-based capital ratios are much higher. Hence, like the EA countries, the banking sectors of the CE5 are well capitalized overall, but it is important to note these averages hide the fact that many banks do not meet the 8% requirement—especially the smaller and the state-owned banks.
- Foreign currency exposure. While the Basel Committee on Banking Supervision does not have rules on foreign currency exposure, some countries do have such rules to limit risks for the banking systems. Except for Estonia, the CE countries have some kind of rules on the net foreign liability of banks.
- Connected lending. Like the EA5 countries, all CE5 countries have regulations on single large exposures, lending per client (or per group of closely connected borrowers), participation in non-bank financial institutions, and inter-connected lending. They are mostly in line with the

Basel Committee requirements. Despite the regulations, close connections between lenders and borrowers often result in less than adequate screening of projects, which has been the case in East Asian countries.

- Lending to volatile sectors. The EA5 did not have restrictions on lending to the highly volatile sectors—real estate and the stock market. In some cases the existing restrictions were relaxed in the process of liberalization. This led to the increased exposure to these sectors and increased fragility.²¹ The limited information available on the CE5 countries seems to indicate that either there are no regulatory limits on lending to the more volatile sectors, or that they are weak.
- Accounting standards and transparency. The CE5 countries have in general adopted international accounting standards for their banks. Estonia even requires that banks be audited by one of the Big Five international accounting firms. But, the implementation of international standards may be slower or weaker in some countries, such as the Czech Republic. The EA countries have also developed domestic standards largely in conformity with international standards. Nevertheless, they rank poorly in terms of overall transparency-disclosure.²²
- Supervision. Most CE5 countries developed fairly adequate supervisory institutions, particularly Estonia, Poland, and Slovenia, despite limitations on resources and capability. Until more recent measures were introduced, supervision was weak in the Czech Republic and Hungary.

Corporate Governance Factors

Corporate governance and transparency also played a role in the build-up of vulnerabilities in the East Asian crisis. Corporate governance and disclosure systems were weak, and capital markets lacked transparency. This has been explained by resistance of issuers to better disclosure and sharing of corporate control, weak incentives and lack of market discipline, weak regulatory framework and enforcement on disclosure, weak enforcement of the legal and regulatory framework for protection of minority shareholders, and inadequate and weak implementation of accounting standards.²³

The assessment of the situation in the CE5 countries requires an in-depth analysis beyond the scope of this report. However, these countries do present some additional specific problems. The remaining presence of a large state-owned enterprise sector, sometimes with links to (state-

owned) banks, despite the extent of the privatization programs is one factor. Another, alluded to above, is the still early and ongoing process of development of the private corporate sector.

Implications of EMU

The international environment and external shocks often play a significant role in currency crises. Many studies find that increases in international interest rates can cause a reversal of capital inflows (as decreases imply surges in capital inflows). Also, external demand conditions and terms of trade effects may affect GDP growth and export revenue. If the impact is sufficiently large and negative, it may increase the perceived risk of the country and lead to reversals of capital inflows. The recent Asia crisis has also highlighted the risks of contagion, not only through traditional trade and real linkages, but also from financial markets and the grouping of countries sharing similar conditions to a collective loss of confidence. The introduction of the euro will present additional challenges to the CE5 countries, given the need to preserve their relative attractiveness (in terms of perceived risks) vis-à-vis EMU and, more generally, EU countries. It will make their success in stabilizing their exchange rates vis-à-vis the euro more crucial for their trade and financial integration with the EU. However, this task is likely to be more difficult if EU accession results in an additional surge in capital inflows.

On January 1, 1999, the currencies of 11 European Union countries were irrevocably locked against each other, and against the new single currency, the euro. The European Monetary Union (EMU) was thus formally created; the euro will fully replace member country currencies beginning in 2002. The new currency and operation of the EMU are likely to have a significant effect on European and international interest rates, exchange rates, and macroeconomic policy in general. The single currency is expected to bring substantial productivity and growth benefits to the EU, through decreased transaction costs, increased efficiency of allocation, elimination of exchange risk premia in interest rates, and improved investment demand. To the extent that it also serves as a catalyst for fiscal consolidation and structural reforms, growth prospects and the investment climate will be boosted further, with a considerable deepening of European capital markets. Owing to their close and expanding links through trade and capital flows, currency arrangements, and geographical proximity, a number of developing countries will be more directly exposed to potential impacts of the euro.

In particular, the acceding Central and Eastern European countries will be affected by the advent of the euro for two main reasons. First, the members of the so-called euro-zone (for example, Germany, France,

Austria, and the Benelux) are the major trading partners of the CE5. And second, since the late 1980s, most of the CE5 have become highly integrated with the EU market: trade is practically liberalized, and remaining restrictions on capital flows are not significant constraints to cross-border capital mobility. Consequently, the introduction of the euro will affect CE5 countries via trade effects (due to EMU-induced changes in euro-area growth and changes in the euro exchange rate), financial linkages (such as on changes in euro-area interest and exchange rates), and institutional consequences (most obviously linked to satisfying the Maastricht criteria before they can participate in the EMU).²⁴

Overall, the improved growth prospects for the EU associated with the introduction of the euro are expected to translate into stronger growth for the CE5, as well as greater trade and capital flow integration with the EU, and an acceleration of financial system modernization. The actual outcome will greatly depend on whether the EMU is well managed by its member countries and on CE5 policies. Perhaps the most important question for the CE5 countries is whether or not the EMU will create greater exchange rate stability. More specifically, will the euro be more or less stable than the DM vis-à-vis non-participating EU member country currencies? And, will the euro exchange rate against the U.S. dollar and yen be more stable than that of the DM?

Risk perceptions may also shift as a consequence of the introduction of the euro. As the euro-zone members will be backed by a strong central bank, the ECB—which is expected to be judged as less risky than some of the national EMU member predecessors—the perceived relative riskiness of the “in” countries and their financial institutions is expected to decrease while that of the “outs” (and other non-euro-zone countries such as the CE5) is expected to increase. The new euro-zone members may benefit from narrowing spreads. Another relevant implication of EMU is the creation of a deeper and more integrated financial market in Europe. For the CE5 countries this would mean greater opportunities for finance at lower costs.

From discussion of these various effects of EMU, it would appear that the net impact on the CE5 countries would depend essentially on the exchange rate and macro-management policies they will adopt. Stability of their exchange rates vis-à-vis the euro is crucial given their degree of integration with the EMU zone. If the CE5 countries succeed in adopting and implementing fiscal and monetary policies leading them to stabilize their exchange rates with the euro, the negative effects of less relative stability (with EU countries) and more perceived risk for the “out” countries will be minimized. The benefits of more overall stability brought about by the euro would dominate in terms of both trade and capital inflows. But their accession to the EU is likely to induce larger capital inflows,

which will make macro-management more complex and difficult—thereby augmenting the risks engendered by the introduction of the euro for them.

III. EU Accession and the Experience of the Southern Mediterranean Countries

This section explores the prospects of the impact of EU accession of the CE5 countries on capital flows and sustainability. The experience of the three Southern Mediterranean countries that joined the EC during the 1980s is used to draw some lessons for the CE5.

Policy Lessons from Portugal, Greece, and Spain

On balance, the relative experiences of the SM3 countries upon integration with the EU—positive for Portugal, generally favorable for Spain and poor for Greece—suggest that efforts at integration will yield benefits to the degree that domestic macroeconomic conditions are stable, and that reforms that support a flexible response by the private sector are undertaken to complement the liberalization of trade. The differing outcomes can be clearly ascribed to wide differences in domestic policy. With respect to fostering increased FDI and portfolio inflows, the lesson of the SM3 countries' experiences is that, if the macroeconomic and institutional environment is not right, it will not take place, regardless of other policies that have been instated to encourage it.

More specifically, a number of lessons may be drawn from the experiences of the three countries. First, in areas where they failed to pursue structural reforms, impediments to growth lingered, serving to mute the stimulative effects of opening to the EU. In the case of Spain, substantial labor market rigidities continue, and expose the country to high unemployment rates. The weak performance in employment creation in Greece may also be traced to poor fiscal and monetary management, as the public sector's role in the economy actually expanded following accession.

Second, within an appropriate policy environment, private capital flows can help to finance the costs of adjustment. As anticipated, the new members experienced deteriorating trade deficits once EU imports were allowed to enter freely, and exports responded with some lag to liberalization. But stronger perceived accomplishments in stabilization and reform in Portugal and Spain helped to bolster their attractiveness for FDI, for which indeed the act of entering the EU already provided some upward impetus. The two countries benefited from improved ratings from institutional investors. Strong growth in both FDI and portfolio inflows, constituting some 3 percent of GDP, facilitated job creation, improvements in

productivity, and technology transfer. Greece, however, derived little benefit from private inflows, owing in part to macro instability and the continued dominance of the public sector in economic activity.

Third, theory postulates that there is a link between openness of an economy and growth, and that income levels will begin to display converging trends following trade liberalization (See for example, Sachs and Warner, 1995). Overall, Portugal and Spain's openness and economic performance following accession to the EU improved markedly, while in Greece little additional openness occurred and the economy remained burdened by chronic stagflation. Evidence of convergence also appeared in Spain and Portugal, while Greece failed to reap such gains.

Finally, developments since accession have highlighted some potential costs and benefits of integration as EU members, and continuing effects of policy decisions of the 1980s. On the "down-side," tighter trade and financial linkage have increased exposure to the effects of European activity (for example, the positive and negative impacts of German unification) and to recession such as in 1993. Moreover, as the Iberian countries experienced large foreign private FDI and portfolio investment inflows during the growth years of the late 1980s, both were then exposed to the effects of foreign investors pulling their cash out in the early 1990s.²⁵ But, despite a somewhat looser tie to the European "Big-4" economies, Greece was not sheltered from the downswing and recession of the early 1990s. On the "up-side," the benefits of joining the EU and gaining access to large consumer markets are apparent from both Portugal and Spain's recent recoveries led by robust export growth. Greece's economy also recently emerged from recession, but the upswing was not as robust as previous recoveries, nor did exports play a significant role in bolstering the expansion as in Portugal and Spain.

Microeconomic policy reforms also play a critical role. In the case of Portugal, ongoing commitment to structural reforms targeted at enhancing private sector activity (including institution building), has been a key factor in its successful process of accession. Trade liberalization has helped to boost imports of capital goods, increase exports of manufactures, and to attract significant amounts of FDI. Investment has been further facilitated by harmonization with EU norms in rights of establishment, EU technical assistance and incentive programs, and easing of restrictions and streamlining of the project approval process. Privatization has been among the most aggressive in the OECD, and has been complemented by financial reforms that have increased the availability of funds for private investment. From among the most restrictive in the EC, labor market regulations have been eased, and reform of the civil service has helped to improve the professional qualifications of staff and to bring about greater comparability with private sector wages.

Implications and Prospects for the CE5

Broadly speaking, initial conditions in the CE5 economies are comparable to those of the SM3 countries when they sought EU membership. Considering supply side indicators, investment in human capital, in particular, is very high relative to the position of SM3. For example in the early 1990s, average years of schooling in Hungary and Poland came to 10.8 and 8.4, respectively, compared to far fewer years in Portugal, Spain, and Greece in the early 1980s of 3.2, 5.2, and 6.6, respectively. With regard to macroeconomic indicators, the CE5 initial conditions are broadly comparable. Inflationary pressures are currently similar and the burden of the public sector, reflected by the PSBR as a share of GDP, is notably lower. Non-tariff barriers are somewhat higher, indicating somewhat relatively weaker trade liberalization.

Nevertheless, the CE5 have achieved a greater degree of openness with respect to trade as a share of GDP compared to the SM3 during the early 1980s. Remarkably, the five transition countries have achieved far higher net inflows of FDI as a share of GDP in comparison to Portugal, Greece, and Spain during the pre-accession period, levels that the two Iberian countries were unable to attain until after accession and that Greece has yet to achieve (through 1996). These higher levels in part reflect a larger pool of capital in the world today relative to the 1980s.

There is general consensus in economic literature that economic integration tends to increase FDI into and within integrating regions, that is, that FDI and trade are complementary, as firms integrate their operations across borders by trading intermediate goods and services.²⁶ Considering the CE5, this is evident from the patterns of FDI and international trade. As the EU has become the most important trading partner for all five of the countries—reflecting the importance of the region as a production base for exports to the EU—FDI flows have come to originate from the EU. For example, EU inflows comprise 70% of the total inflows to Poland, Hungary, and the Czech Republic during the period 1992–95, on average. The share of total net FDI inflows from the EU also represents an increasing component of total direct investment flows to the three countries, up from 69% in 1992 to 71% in 1995.

This conclusion is reinforced by considering the broader experience of EU member countries. There have been a number of beneficial effects of the single market program (SMP) with regard to capital flows, which the CE5 should be able to benefit from as well, as integration with the EU advances. SMP-associated gains in efficiency and increased competition in European industry are mainly attributed to cost reductions related to size. This exploitation of scale economies has been primarily linked to fixed investments in marketing, brand development, R&D spending, and

development of new products and production processes, and less so to improvements in efficiency as a consequence of exploitation of purely technical efficiency gains associated with size. The restructuring appears to have taken place mostly through the capital market via mergers and acquisitions, with a more limited role for entry, exit, and the internal growth or decline of existing firms.²⁷

There is evidence that Portugal, Spain, and Greece were able to benefit in other ways from improved access to EU consumer markets. Specifically, intra-industry trade (IIT) as a percentage of intra-EC trade increased for all three following entry into the Union. Both Spain and Greece experienced a 7 percentage point expansion of IIT by 1987, to 31% and 64%, respectively, from 1980 levels of 24% and 57%, respectively. IIT in Portugal represented 37% of Portugal's intra-EU trade in 1987, up 5 percentage points from 32% in 1980.²⁸ IIT includes trade in modern production lines in high-tech industries, and typically in industries characterized by increasing returns to scale. Expansion of IIT indicates that the three countries might have been able to take advantage of scale economies following accession. While it is not necessarily the case, expanded IIT also suggests greater likelihood of technology transfer and skill enhancement for the labor force. IIT is attractive in that it can act as a conduit to new markets, as well as improving diversification. Further, costs associated with adaptation are higher for inter-industrial specialization than for intra-industrial specialization.²⁹

Similar to the pattern of markedly high FDI inflows, the CE5 countries already in the pre-accession phase have been experiencing strong growth in IIT, to levels commensurate with the SM3's post-accession experience. Driven by the opening of their economies and associated changes in managerial incentives, market structure, and flows of technology, the potential growth in IIT in the CECs was very high at the end of the 1980s. Indeed, studies show that IIT in the Central and Eastern European countries has been rising rapidly since the late 1980s.³⁰ As of 1995, most of the CEEC had levels of IIT comparable (or higher) to those of Portugal, Greece and Israel. Three countries, Czech Republic, Hungary and Slovenia, were among the top ten countries in terms of share of IIT in total trade with the EU. Geographical proximity with EU countries and significantly lower real wages are likely contributors to this expansion as well.

With EU accession, looking to the experience of the Southern Mediterranean countries, the CE5 can expect continued export-led growth and inflows of foreign private capital, that is, fostering of greater convergence of per capita income toward EU levels. Sustained high levels of foreign private capital inflows for the CE5 can be expected, perhaps not so much tied to privatization as has been largely the

case with FDI inflows to date, but attributable more to the enhanced market environment for investors associated with accession and improved growth prospects. Indeed, as foreign capital flows become less tied to privatization (which created “lumpy”: inflows connected with privatization offerings) and more linked to output and market performance, the steadier FDI flows will become, at least the component of non-privatization-related FDI.

More broadly, the CE5 can perhaps expect even higher levels of foreign capital inflows than the SM3 did when they joined in the 1980s for two main reasons. First, both capital mobility and the pool of capital for investing in emerging markets have increased dramatically since the 1980s. However, this has been tempered by the reassessment of emerging markets and the tendency for retrenchment since the Russian moratorium. Second, the degree of integration in many respects (i.e., trade, finance, and institutional) with which the CE5 will accede to the EU is likely to be greater than that attained by the SM3 at accession. The extent to which the five transition countries can translate these developments into stronger capital inflows depends on their overall performance. Indeed, their ability to tap into a larger emerging market capital “pool” is significantly linked to integration performance, particularly with respect to trade, finance, and institutional convergence.

This provides the CE5 with both a strong incentive and confidence to continue to prepare for accession, i.e., to continue the process of liberalization and complementary institution building. As the experience of the SM3 demonstrates, the success in obtaining the benefits of the capital inflows depends crucially on the capacity of the CE5 at managing their macro implications and the speed at which the required institutional reforms are implemented compared to that of increased capital inflows. The relevant important institutions include: the financial sector, public administration, the system of enforcement of property rights, corporate governance, and so on. It is therefore important to work today on the conditions for successful integration.

Concluding Remarks and Recommendations

A number of lessons and recommendations emerge from the study of the CE5 countries’ experience with capital inflows, their management and effects thereof, and comparisons with the East Asian countries most affected by the recent crisis and the Southern Mediterranean countries at the time of accession to the EU. These lessons and recommendations are summarized in the Introduction. We emphasize in the following some policy recommendations:

- The CE5 countries will have to walk a very tight rope over the coming period of their run-up to accession in terms of macro-policies. They should aim at stabilizing their exchange rates in view of the increased exchange rate stability within the EU (for EMU and non-EMU members). On the other hand, managing the effects of capital inflows and inducing the right incentives for external finance may call for more exchange rate flexibility. Overall the latter objective may have to dominate in order to reduce the risks of financial instability.
- Over the medium run, fiscal policy should play a crucial role in obtaining convergence of inflation to EU levels and eliminating excessive interest rate differentials, which may cause excessive borrowing and attractiveness to more volatile capital inflows. More focus on the fiscal position and the role and importance of contingent liabilities is therefore warranted.
- The speed of implementation of institutional reforms during the pre-accession period is critical. Putting in place the adequate institutional infrastructure to deal with and benefit from capital inflows is central to the success of accession. Of particular importance is the health of the financial system, including the adequate regulatory and supervisory environment.
- Introducing and/or improving prudential regulations of foreign currency exposure of banks is one aspect of this regulatory environment that warrants special attention.

A number of aspects and issues were discussed in the report in a summary and approximate fashion because of data and information limitations. Some of these areas warrant more detailed analysis:

- Monetary and exchange rate policy in each country and its implications in terms of interest rate differentials and incentives for external borrowing.
- The actual fiscal stance and contingent liabilities as well as the role of implicit and explicit guarantees.
- The role of real exchange rate appreciation and its implications for competitiveness calls for further study. Factors affecting competitiveness seem to vary according to countries. Are they related to different performances in productivity, in wage and labor market developments, or other factors?

- The banking system and quality of portfolio, the legal framework supporting the financial system (enforcement of contracts and property rights), the supervisory framework.
- The interactions between the health of the financial system and external borrowing. The links go both ways. A low level of financial intermediation and a weak financial system may induce creditworthy firms to exit and obtain finance abroad. This in turn will concentrate the banking system portfolio on the more risky business, making the system more fragile.
- The development and quality of capital markets, and the role and risks played by capital inflows.
- Corporate governance, and the role of state-owned enterprises, and connected lending and implications for the financial system health and performance.
- The CE5 countries, excluding Estonia, still have some restrictions on capital account transactions. It would be useful to analyze in more detail these restrictions and whatever role they may have played in affecting the size and composition of capital inflows. An important issue is to study how appropriate these restrictions are to deal with the risks, particularly as many of the countries (Hungary, the Czech Republic, and Poland) move toward total convertibility, in the context of OECD membership.

Endnotes

* With contributions by Annette De Kleine and Sergei Shatalov.

¹ In addition to the CE5, Bulgaria, Latvia, Lithuania, Romania, and the Slovak Republic have been invited to apply for EU membership.

² See World Bank, *Global Economic Prospects 1998/99*. A similar analysis and discussion is used by Guillermo Perry and Daniel Lederman, *Financial Vulnerability, Spillover Effects, and Contagion: Lessons from the Asian Crises for Latin America*, World Bank Latin American and Caribbean Studies, World Bank, 1998.

³ Some of the main references:

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Graciela L. Kaminsky and Carmen M. Reinhart, *The Twin Crises: The Causes of Banking and Balance of Payments Problems*, Center for International Economics, Department of Economics, University of Maryland, Working Paper no. 37, December 1997.

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Jeffrey Sachs and Andrew Warner, *Economic Reform and the Process of Global Integration*, Brookings Paper on Economic Activity No. 1, 1–118, 1995.

⁴ The reported fiscal deficits may not reflect completely the fiscal positions. There may be a concern that contingent fiscal liabilities are significant for some countries and can be a serious source of vulnerability. For the importance of contingent liabilities see Hana Polackova, *Contingent Government Liabilities: A Hidden Risk for Fiscal Stability*, Policy Research Working Paper No. 1989, World Bank, October 1998.

⁵ For Hungary the data on the current account on a settlements basis are not consistent with the investment-savings balance on national accounts basis. But the increase in investment is commensurate with the increase in the deficit.

⁶ See World Bank, *Global Development Finance*, March 1998.

⁷ Roubini and Wachel (1997) also make this observation. See Nouriel Roubini and Paul Wachel, *Current Account Sustainability in Transition Economies*, Paper presented at the Third Dubrovnik Conference on Transition Economies, June 1997.

⁸ Guillermo Calvo, Ratna Sahay, and Carlos A. Vegh, *Capital Flows in Central and Eastern Europe: Evidence and Policy Options*, in Guillermo Calvo, Morris Goldstein, and Eduard Hochreiter (eds.), *Private Capital Flows to Emerging Markets after the Mexican Crisis*, Institute for International Economics, Austria National Bank, September 1996. And L. Halpern and C. Wyplosz, *Equilibrium Exchange Rates in Transition Economies*, IMF Working Paper 96/125, November 1996.

⁹ One explanation for the absence of correlation between REER changes and export performance is that the average nature of the REER masks significant changes in real bilateral or regionally relevant exchange rates affecting competitiveness vis-à-vis trading partners and close competitors. For instance, in Estonia there is a strong appreciation in terms of DM rates, but depreciation vis-à-vis currencies of trading partners such as Russia and other Baltic States.

¹⁰ J.P. Morgan, *Asian Financial Markets*, January 1998, p. 7.

¹¹ ADB-World Bank (1998). Fig. II.24. Asian Development Bank and World Bank, *Managing Global Financial Integration in Asia: Emerging Lessons and Prospective Challenges*, March.

¹² Non-FDI flows are also significantly affected by differentials between domestic and foreign interest rates. Some evidence is also given by *UN Economic Bulletin for Europe*, 1997 (Chapter 4) about the effect of interest differentials and of foreign rates.

¹³ See Table 4.3.3 in *UN Economic Bulletin for Europe*, 1997.

¹⁴ EBRD, *Transition Report 1998*.

¹⁵ The EBRD overall index of capital account liberalization was 74 for the Czech Republic, 60 for Hungary, and 55 for Poland at end-1997.

¹⁶ Asian Development Bank, World Bank (1998), and World Bank (1998). See note 11.

¹⁷ A detailed analysis is in ADB-World Bank (1998). See note 11.

¹⁸ This factor can lead to adverse effects on the overall quality of portfolio.

¹⁹ Indonesia, Malaysia, Thailand since 1992 and Korea since 1996.

²⁰ See ADB-WB (1998). (See note 11 for citation.)

²¹ The Philippines and Malaysia introduced some limitations in April 1997. See ADB-WB (1998), Box II.1. (See note 11 for citation.)

²² See ADB-WB (1998). (See note 11 for citation.)

²³ A detailed discussion of these factors is provided in ADB-WB (1998). (See note 11 for citation.)

²⁴ Russo, Massimo. "The Transition countries of Central and Eastern Europe: Why EMU Matters." April 1998. IMF.

²⁵ In Portugal, net portfolio flows represented a negative 3.3% of GDP in 1992. In the case of Spain, net portfolio flows contracted by 4.4% of GDP, following massive inflows equal to 10.3% of GDP in 1993.

²⁶ *The Single Market Review: Foreign Direct Investment, Impact on Trade and Investment*. Series IV, Vol. I. European Communities, 1998.

²⁷ "Efficiency and Competition Effects," *European Economy*, No. 4, 1996.

²⁸ OECD, *Portugal Survey*, 1991–92.

²⁹ *Axt*, Spring 1992.

³⁰ Aturupane, Chonira, Simeon Djankov, and Bernard Hoekman. *Determinants of Intra-industry Trade Between East and West Europe*. Centre for Economic Policy Research, No. 1721, November 1997.

Capital Flows to Central and Eastern Europe and the Former Soviet Union

Stijn Claessens, Daniel Oks, and Rossana Polastri

Introduction and Background

Capital flows to the Central and Eastern Europe countries (CECs) and the former Soviet Union (FSU) represent a relatively small, albeit growing share of capital flows to developing countries. Taking all flows together, total net flows to these 25 countries were about \$44 billion in 1996¹ or about one-eighth of aggregate net flows to all developing countries. These countries accounted, however, for about 20 and 22 percent respectively of all developing countries' GDP and exports in 1996. As a fraction of their GDP, total inflows were consequently smaller than for many other developing countries, and averaged about 5.4 percent over the 1990–96 period. When debt service and capital flight are taken into account, resource inflows were much lower and even negative to some countries (capital flight from Russia alone has been estimated at some \$50 billion for 1992–96).

This low rate of capital flows to these countries occurred during a period when global capital flows were very buoyant. Private capital flows to developing countries increased dramatically during the 1990s, especially foreign direct investment (FDI) and portfolio equity investment. While flows to the CECs/FSU have also been growing fast—for example, portfolio and foreign direct investment flows increased from \$1.4 billion in 1990 to \$23.5 billion in 1996—between them they still only attract about 15 percent of total private capital flows to all developing countries in 1996.² In 1996, FDI to CEC/FSU, for example, was only \$14 billion, equivalent to the total amount received by Malaysia and Mexico in that year. The distribution of FDI flows has also been highly uneven. Over the 1992–1996 period, Russia and the Visegrad countries (Czech Republic, Slovak Republic, Poland, and Hungary) received the bulk of FDI flows, while many other countries in the region are still all but untouched by FDI.

The relatively low level of capital flows—especially private—reflects the special nature of the economic development processes in these countries. Several factors are important. First, the CECs/FSU are all transition

economies. Market reforms did not get underway until the end of the 1980s for most of the CECs—with the notable exceptions of Hungary and Poland—and until 1991 for the FSU. The transition process also influenced the nature and composition of the capital flows. In particular, early on in the transition the capital flows were mainly fiscally driven and often from official sources. Annual net flows of official development finance—including official development assistance (grants and official concessional loans) and official non-concessional loans—represented about 40 percent of total net flows in 1990–96 and over 100 percent in 1990–91 (as private net flows were negative in those years). This reflected the sharp deterioration of fiscal revenues at the onset of the transition process and the lack of creditworthiness of some countries. Associated with this process were low private capital inflows, and for some countries substantial amounts of capital flight. The low level of private inflows was attributable to a variety of factors, including partial and incomplete reforms or an uncertain commitment to reform in most countries, high political and social costs of the transition process itself, as well as high levels of corruption and political instability (several countries in the FSU have been affected by civil wars). Many of the CECs also lost financing and aid from the Soviet Union—they had received large aid, including through above-market export prices and below-market import (especially energy) prices, from the Soviet Union (World Bank 1996), but these flows essentially ceased in 1989—implying a larger financing need for their governments.

In more recent years, there has been a more rapid inflow of private capital, as reform efforts have consolidated and economic prospects improved and, for some countries, as EU integration became a possibility for the near future. For some countries, short-term capital has recently become an important source of external financing. Since most countries have been “late-comers” to the phenomenon of large private capital inflows, they have not experienced much of the overheating phenomena that have affected other developing countries in the past (Latin America) and recently (East Asia). The main exceptions indeed were precisely some of the earlier and faster reformers such as Hungary, Poland, Czech Republic, and Estonia.

At the same time, the transition to a market economy is far from complete for most of the economies in the region. Distortions in factor markets are still prevalent and the institutional development in areas crucial to beneficial financial integration—particularly the legal system and financial sector—is still limited, especially in many of the countries of the FSU. Deficiencies, which in other developing countries have been associated with subsequent problems, including poor resource allocation and financial crises, are thus still prevalent in many transition economies. By tackling these issues now, these countries could presumably stand to gain

more of the benefits and less of the risks associated with more financial integration and large private capital flows.

This paper investigates the amounts, type, and sources of capital flows to these countries. It tries to determine the motivation of the various sources of capital flows, distinguishing global and country-specific factors. The paper provides estimates of the (econometric) relationships between, on one hand, the different kinds of capital flows and, on the other hand, the reform process, macroeconomic fundamentals and performance, and external factors. As the history of capital flows to the CECs/FSU is short, historical analysis has, however, significant limitations and econometric estimation is difficult. Lessons from experiences of other countries with private capital flows may be applied to these countries, when taking into account their special characteristics.

I. Capital Flows

Descriptive Statistics

In principle, one can distinguish capital flows by destination (e.g., public versus private); by type (e.g., debt, of which long-term and short-term, FDI, portfolio, of which bonds and equity) and by origin (e.g., commercial, i.e., private versus official creditors). One can also combine the three distinctions, e.g., by splitting debt-type flows into public and private debt, and the latter further into long and short, and by origin, e.g., commercial versus official. For our purposes, and given the data we have at hand and the patterns in capital flows we observe, we create five categories of capital flows: public debt (official) flows; commercial long-term (LT) debt flows; commercial short-term (ST) debt flows; FDI flows; and portfolio (bond and equity) flows. For some purposes, it would be useful to further split commercial debt flows into those going to the banking system versus to other sectors of the economy, but it turns out that this cannot be done for most of the countries given the data available. Our focus is on net flows; however, while we occasionally also discuss "capital flight" (other than that captured through short-term flows), we do not net out capital flight from our net flow measures. We group countries in two regions: Central Europe and the Baltics; and the rest of Eastern Europe, the Caucasus, and Central Asia.³ The group of countries in Central Europe is relatively homogeneous. The second category groups countries with more diverse economic characteristics.

Total capital flows rose from around \$1 billion in 1990 to \$57 billion in 1997. Pooling together all observations (by country and by year) and measuring them as a share of GDP, the largest types of flows during the 1992–96 period were official debt flows and FDI (on average, respective-

ly 2.7 percent and 2 percent of GDP), followed by portfolio flows (0.4 percent of GDP). Of all these flows, the highest standard deviation was for official flows (standard deviation of 3.6 percent of GDP). The following other stylized facts can be observed.

First, the share of official flows has declined sharply over the period (figure 1). At the beginning of the transition, official flows increased sharply, with bilateral and multilateral sources accounting for most of the flows. In 1992, as some of the transition economies regained access to international credit markets, private flows began to exceed official flows, and by 1997 they accounted for 73 percent of total flows.⁴ This development is not different from what has been observed in other developing countries, but in these transition economies the change in composition appears to have occurred more swiftly. The reduced reliance on official flows has been more marked in Central Europe and the Baltics than in the FSU. While FDI and portfolio flows were already large in Central Europe and the Baltics in 1991–92, they only acquired significance in the FSU after 1994. This is consistent with the onset of earlier reforms and improved access to international capital markets by Central Europe countries and the Baltics.

Second, there has been a rapid surge in short-term capital flows (short-term debt plus portfolio flows) from about \$1 billion in 1991–92 to \$12 billion in 1996–97—with the share in total flows increasing from 5 percent to about one-quarter (figure 2). The surge in short-term flows could be a source

Figure 1. Official versus Private CEC and FSU

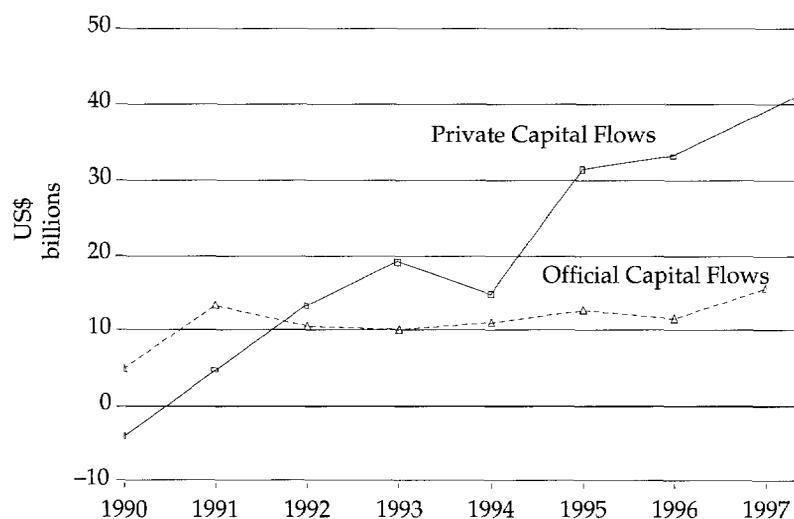
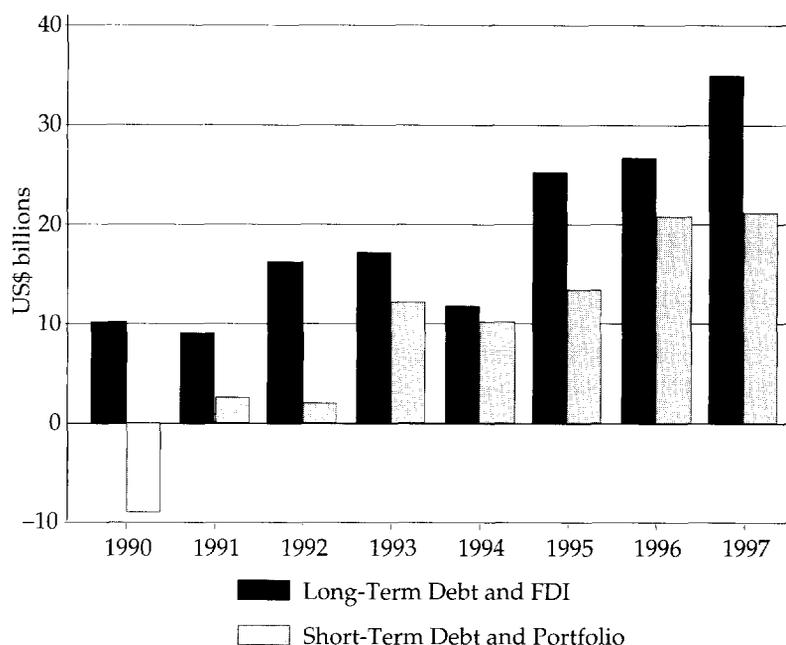
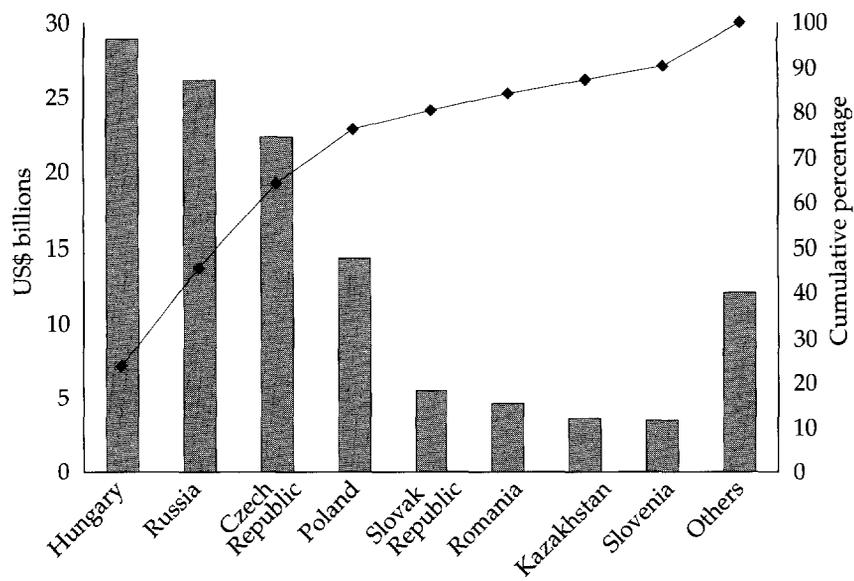
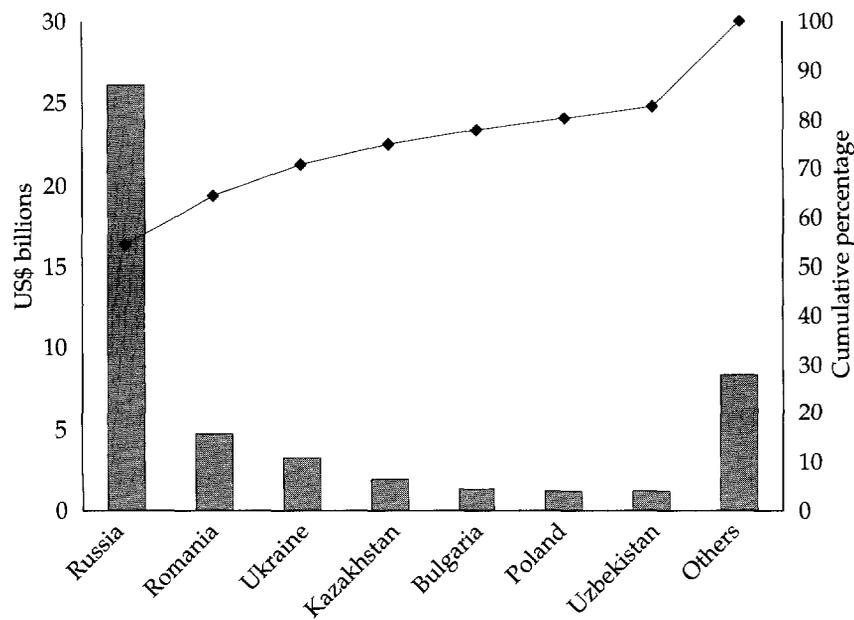


Figure 2. Long-Term and Short-Term Capital CEC and FSU

of concern for policymakers, as short-term flows could be associated with higher volatility. This may be especially so for those countries that received the bulk of short-term flows: during 1993–96, the largest recipients were Hungary, Czech Republic, Russia, Slovak Republic, Ukraine, and Slovenia, with these countries in total receiving over 90% of all short-term flows.

Third, the destination of private capital flows has been heavily concentrated.⁵ A few countries, Russia, Hungary, Poland, and the Czech Republic, accounted together for about 80 percent of private capital flows to the region (figure 3). The above four countries, along with a second group of countries—Romania, Kazakstan, Ukraine, Slovenia, Slovak Republic, Lithuania, Estonia, and Croatia—accounted for about 98 percent of all private capital flows to the region. The concentration for FDI was even higher. Two countries, Poland and Hungary, for example, received over 50 percent of the 1992–96 cumulative FDI to the region (\$46 billion).

Fourth, official capital flows (excluding flows from IMF) have also been heavily concentrated, although mostly in a different set of countries than private flows. On a cumulative basis over 1992–96, five countries (Romania, Russia, Kazakstan, Ukraine, and Bulgaria) received over 75 percent of all official flows (figure 4). Some of the earlier large recipients

Figure 3. Major Recipients of Private Capital Flows, 1990–96**Figure 4. Major Recipients of Official Capital, 1990–96**

of official flows subsequently repaid large amounts of official debt and, thus, on a net cumulative basis the significance of official financing for these countries is somewhat understated. Russia and Poland, for example, received around \$2.4 billion in official financing in 1993–94 and repaid over \$3 billion in 1996.

The underlying factors behind private flows are quite different from those underlying official flows. In case of private flows, creditworthiness—as a result of structural reforms and strong macroeconomic fundamentals—and economic and financial opportunities—such as high interest rate differentials—tend to drive flows. In case of official flows, political considerations (including geopolitical or social stability), commitment to reforms (usually reflected in the conditionality applied to official financing) and the fiscal deficit tend to be important determinants. We therefore discuss private and official flows separately.

Private Flows

Private capital flows depend on domestic factors and international factors, such as foreign interest rates or demand conditions abroad (see Calvo et al., 1993). In turn, domestic factors can be broadly classified into:

- Structural reforms (e.g., openness, privatization, financial sector deepening);
- Banking sector stability, creditworthiness, and macroeconomic fundamentals (e.g., fiscal deficit, debt-to-GDP ratio, ratio of short-term debt or monetary base to foreign reserves);
- Private sector behavior (e.g., propensity to save);
- Economic performance indicators (e.g., GDP growth); and
- Arbitrage opportunities (e.g., domestic-foreign interest rate differentials adjusted for expected devaluation).

As we discuss below, different types of private flows are likely to depend differently on specific subsets of these explanatory variables.

Domestic reforms aimed at liberalizing prices, trade, and private sector activities have been very important for motivating the inflow of private capital. Countries generally did pursue many policies to attract capital flows, in particular they quite rapidly liberalized their current and capital accounts. In addition, some provided official guarantees for flows to private borrowers, while others provided special tariff or tax regimes

to attract FDI flows. However, compared to the impact of general reform, specific policies appear to have played a limited role in explaining capital flows.

Some countries experienced large private capital inflows to private companies and state enterprises early on, even prior to the transition, but this most often reflected special circumstances. Several countries are well endowed with natural resources and were as a result able to attract FDI in these sectors, even when overall market reforms were still at an early stage. About half of total net inflows for Azerbaijan and Kazakhstan in 1995 and 1996, for example, were in the form of FDI, even though they score low on policy reform. In other countries, the privatization strategy pursued greatly influenced capital flows. For example, since the onset of transition, Estonia—and Hungary even earlier—pursued a policy of actively selling firms on a case-by-case basis to strategic investors, including foreign investors. As a result, FDI inflows dominate private inflows for both countries (FDI inflows to Hungary actually exceeded in 1996 total net flows). And in the case of Russia in recent years, FDI flows have increased significantly as a result of the privatization of a few, large resource-based state enterprises.

Capital flows have also been influenced by the behavior of domestic savings. Theoretically, foreign savings can be a complement or a substitute to private domestic savings. The type of relationship between capital flows and domestic savings can have a bearing on the sustainability of capital flows. Hernandez and Rudolph (1995) found for economies in other regions that capital flows tend to be more sustainable when foreign and domestic savings are complementary. The data suggest that such a complementarity between aggregate domestic saving and total private flows exists in the CECs/FSU. Based on this complementarity alone, capital flows are likely to be sustainable.

A few countries have had (temporary) situations of “overheating” associated with large private capital inflows (excluding FDI). For the region as a whole, however, short-term private flows (excluding FDI) were insignificant before 1993 and were less than one-third of all flows thereafter. More important, with a few exceptions, the share of capital flows relative to GDP remained small. Relative to GDP, only the Czech Republic and Hungary received in 1995 large amounts of private capital flows, 10.9 percent and 8.2 percent respectively. Though not for the region as a whole, there are several cases where financial arbitrage likely played a major role in motivating capital flows. For example, in recent years, there have been substantial foreign investment in portfolio flows in the form of purchases of local currency fixed-income instruments, such as Russian, Polish, Hungarian, and Czech T-bills and T-bonds. Table 1 suggests a positive link between high interest rate differentials (domestic

Table 1. Non-Equity Portfolio Flows and Interest Rate Differential

	<i>Poland</i>			<i>Czech Republic</i>			<i>Slovak Republic</i>			<i>Hungary</i>			<i>Russia</i>		
	1995	1996	1997*	1994	1995	1996	1994	1995	1996	1994	1995	1996	1994	1995	1996
Non-Equity Portfolio (in US\$ millions)	250	-531	2200	733	1288	562	218	210	-264	2124	1729	-1873	-184	-1576	2320
Interest Rate Differential (%)	14.4	7.6	0.2	8.3	15.6	6.1	5.5	19.4	5.1	6.4	4.7	-2.3	—	22.1	57.5

—. Not available.

Note: * Breakup in bonds and equity flows is not available for Poland for 1997. Figure reflects total portfolio investment.

interest rates corrected for the ex post exchange rate devaluation minus US\$ LIBOR) and private capital inflows in these countries. For some countries, bond inflows have coincided with large and rapid equity portfolio inflows.

There has been a positive association between domestic credit growth and private capital inflows for only a few countries. The association for these countries stems both from general equilibrium effects and from banks directly intermediating capital flows. The large credit growth often seen in other developing countries has thus been much less observed for these countries. This may be attributable to the early phase of the expansionary cycle for most countries, or the poor state of institutional development of the banking systems in these countries—where foreign lenders are reluctant to lend large amounts to still weak banks. Direct intermediation of foreign savings through domestic banks has, for most countries, been limited. An exception has been Estonia, where in 1997 the banking sector relied heavily on foreign issues of Eurobonds to finance their domestic lending. Because of the general equilibrium effects of capital inflows, however, there were a few other countries where high credit growth and large capital inflows coincided (for example, the Czech Republic).

Finally, there is evidence that capital inflows have been often associated with improvements in key macroeconomic performance indicators such as GDP growth. This highly observable performance indicator may serve as a proxy, to private investors, for effective reforms.

Official Flows

In the early stages of reform in the CECs/FSU, a major share of official assistance took the form of balance of payments and budgetary support, including official debt relief. This was necessary as the transition meant a substantial drop in fiscal revenues, especially for the FSU countries where government revenues essentially collapsed. Receipts from the state enterprise sector fell sharply, partly as a result of privatization, partly as a result of the elimination (or reductions) of price subsidies, and partly as a result of a breakdown of the tax system. Price liberalization brought into the open the extensive systems of cross-subsidies inherent in the planned economy, shifting all or most of the cost onto the budget. Also, the new tax administrations proved unable to tax the emerging sectors. At the same time, there were pressures to maintain expenditures, especially for social purposes.

Fiscal deficits were large in many transition economies during 1990–96, averaging 6 to 7 percent of GDP in Bulgaria, Hungary, and Uzbekistan. They were even higher in Russia—an average of 8.5 percent of GDP over 1992–96 and continued to be high in 1997. In addition, gov-

ernments often mandated the banking system to undertake quasi-fiscal activities—most often extending (subsidized) credits to state enterprises (Claessens and Peters, 1997, analyze the case of Bulgaria; Claessens and Abdelati, 1996, the case of Romania). Among slower reformers, credit subsidies from the central bank were on the order of three times the size of the fiscal deficit (De Melo and Denizer 1997). Much of these fiscal and quasi-fiscal deficits ended up being funded⁶ through seignorage and inflation tax. Seignorage averaged more than 16 percent of GDP in Russia during 1992–93, about the same as total central government revenues (Easterly and Viera da Cunha 1994).⁷ In CEC, it was more modest, averaging 5 to 6 percent of GDP in Poland and Hungary during 1990–92.⁸ Official flows tend to have a close relationship with the fiscal deficits; the two variables indeed have one of the closest correlation relationships for all types of capital flows and various possible explanatory variables (a correlation coefficient of -0.69 , where a fiscal deficit is defined as negative).

Official support (from international financial institutions and individual country donors) provided partial financing for these fiscal deficits, thus reducing inflationary pressures. Official support, however, was also conditioned on reform efforts and⁹ has typically been larger, relative to population or GDP, for those countries that subsequently advanced further with reforms. For example, the Visegrad countries, the most advanced reformers (along with the Baltics), had received by the end of 1993 more than half of all the disbursements of international financial institutions to the region. Total official disbursements to the countries, which have generally progressed furthest in their reforms, accounted for an average of about 2.7 percent of their GDP in 1991–93, actually comparable to the Marshall plan (aid under the Marshall Plan after World War II averaged 2.5 percent of the incomes of recipient countries during the period it was being disbursed). External official finance has thus helped underpin a number of reform and stabilization programs, in creating confidence (as was true of the Polish stabilization fund), and in reducing the need for monetary financing to cover budget deficits. Bilateral and multilateral (mainly the EU) assistance has also had a large component of technical assistance.

In summary, official flows have been fiscally driven (for a review of the special fiscal issues experienced by transition economies see Buiter, 1996). In conjunction, a commitment to subsequent reform appears to have been an important determinant of official flows. The access to private financial markets that reforms have facilitated (at least in the most advanced reformers), however, has meant that official financing was quickly substituted by private capital flows (even though successful reformers usually still rely on official flows as contingent support).

The Policy Framework

Countries improved the framework for capital flows largely through sustained structural reform efforts, involving liberalization, privatization, decentralization, stabilization, and institutional changes. Capital inflows have in general rewarded successful reforms and good policies by helping to finance investment needs and, in the case of FDI, by helping to improve productivity and access to foreign markets—thus helping to foster the further integration of transition economies into the global economy. However, while the benefits are clear, the Mexico and Asia crises suggest that rapid surges of—particularly short-term—capital flows over a short time-span can also pose difficulties to macroeconomic and financial sector management. In the CECs and FSU, only a few countries—and only recently—needed to deal with the potentially adverse effects of large capital inflows. There has consequently, in general, been little need for the responses traditionally employed when countries have faced large capital inflows (i.e., sterilization, exchange rate management, capital controls, prudential measures, capital outflow liberalization, and fiscal restraint; see further Corbo and Hernandez, 1996).

II. Econometric Tests and Evaluation

The above section suggests a strong relationship between capital flows and economic reform. They also made clear that the factors influencing capital flows have differed by the types of capital flows. Furthermore, policy responses (for example, degree of sterilization, liberalization or imposition of capital controls) have also differed by the degree and type of capital flows. To make these relationships more precise and to study the separate effects of some of these factors we provide some regression results in this section.

The main aim of the regressions is to try to explain the magnitude of the various types of capital flows for individual countries. Common with the existing literature (e.g., Calvo, Leiderman, and Reinhart, 1993, Chuhan, Claessens, and Mamingi, 1998, Hernandez and Rudolph, 1995, Taylor and Sarnio, 1997; and Montiel and Reinhart, 1997, provide a review of this literature), we distinguish two groups of explanatory variables: international factors (“push factors”); and domestic factors (“pull factors”). Push factors are thought of as conditions in global capital markets that influence the supply of capital and are outside the control of a particular recipient country. Pull factors are thought of as country-specific factors and conditions influencing the interest of foreign capital of investing in that particular country. Some of these factors are under the

control of the country; some are initial conditions; and others are outcomes, which are in part influenced by capital flows themselves.

For the group of pull factors, we use the U.S.-dollar, six-month LIBOR interest rate, and the economic growth in OECD countries. We expect that declines in world interest rates will have a positive effect on capital flows to the CECs/FSU as that will make the rate of return on investing in these countries higher relative to other alternatives. The effect of an increase in OECD growth rate is less obvious. On one hand, it will likely be associated with a rise in the rate of return on investment in OECD countries, thus reducing the attractiveness of investing in transition economies. On the other hand, higher growth may raise the supply of savings in OECD countries, thus stimulating capital flows.

The group of pull factors is split into policy factors, that is, "reform efforts," initial conditions, and "outcomes." Obviously, it is difficult to quantify the degree of policy reform a country has undertaken in absolute terms. The very similar starting position of most of the transition economies—controlled prices, little private sector activity, limited institutional development, etc.—makes it somewhat easier to quantify at least the relative degree of policy reform in the CECs/FSU. We use the liberalization index from De Melo et al, 1997, to rank countries in their relative reform efforts. This index, an indicator between 0 and 1, is available for each country and for each year and aims to measure how far the country has progressed in liberalizing prices, trade, and private sector activities, including privatization. The initial conditions and outcomes variables are more difficult to separate, as capital flows are likely to interact with and affect current outcomes, which then become initial conditions for subsequent capital flows. We use the country's GDP growth rates, inflation, fiscal balance, private savings, and, as a creditworthiness indicator, the change in the country's reserves. We lag the change in the country's reserves and the two savings variables by one period to avoid possible simultaneity (as the sum of private, public, and foreign savings adds up to the change in reserves). In addition, we also use a dummy for the ten CEC countries likely to become EU members.

We focus separately on factors that have likely influenced short-term private capital flows ("arbitrage factors"). In particular, we use the exchange rate adjusted rate of return on holding domestic assets (i.e., the nominal domestic interest rates minus the rate of change in the local currency/dollar exchange rate) minus the U.S. dollar interest rate. We also investigate the relationship between different types of capital flows and domestic credit growth as for other developing countries important reinforcing effects have been found between private capital flows and the rate of domestic credit expansion. Depending on the quality of financial intermediation, these reinforcing effects can lead to subse-

quent problems, as has been found for East Asian countries (see Alba et al., 1998).

We perform regressions for seven different classifications of capital flows, focusing mainly on the source of capital: total capital flows, official flows, all private flows, FDI, commercial debt flows, portfolio flows (bonds and equity) and short-term flows. We study total flows as well as categories within these flows as there might be substitution between the various flows, both in a narrow sense (for example, portfolio flows and FDI can be substituting in a particular transaction) and in a broader macroeconomic sense (e.g., large inflows of one kind can encourage or deter flows of another kind).

We run our regressions in an unbalanced panel setup using a sample of 21 countries for the years 1992–96. The panel is unbalanced as we do not have data for our independent variables for each year for each country and private capital outflows figures only for a few countries. We also had to eliminate three countries (Azerbaijan, Turkmenistan, and Tajikistan) for lack of reliable data. All our dependent variables, U.S.-dollar capital flows, are scaled by U.S. dollar GNP based on the Atlas method of the World Bank—which uses the moving average of the exchange rate over three years—to convert local currency GNP to U.S.-dollar GNP. This way we smooth out the effect of large real exchange rate movements.

We have the option of estimating the regression model with individual effects or with a common constant term. The first, the fixed effects model, assumes that differences across the countries can be captured in differences in the constant term. The other option is to use ordinary least squares and estimate the regression model assuming that the constant term is the same across countries. To determine which type of estimation was most appropriate, we conducted F-tests for each regression, testing the hypothesis that the constant terms are all equal. The results suggested that for total, official, private, FDI, and commercial debt flows an estimation using a common constant, in addition to the EU-accession dummy variable, will provide the most consistent and efficient estimators. For the remaining type of flows, portfolio flows, and short-term debt flows, the fixed effects model was more appropriate.

We correct for heteroskedasticity in the error terms of the regressions. In particular, the size of the country has an effect on the relationships. We expect that this effect arises for several reasons. First, because of fixed costs of acquiring information, we expect that small countries exhibit a less clear relationship between explanatory variables and capital flows, as investors will expend fewer resources in analyzing small country characteristics. Second, the lumpiness of some of the flows—particularly FDI, but also of official flows—may make for a more noisy relationship of flows (when scaled by GDP) for smaller countries. Third, we expect

smaller countries to be less economically diversified and more affected by external and internal shocks, thus creating again more noisy relationships. Fourth, available data are likely more problematic for small countries as their statistical systems are less well developed. Plotting the error terms against the size of the country confirms this type of heteroskedasticity. For these reasons we use the estimated cross-section residual variances as weights in the regressions.

In light of the discussion from the previous sections, we start with a benchmark regression for all seven categories of capital flows with the following explanatory variables: reform index, a dummy for EU-accession (which takes the value of two for those five countries currently in negotiations, one for the other five countries, and zero for all other countries), and the change in the level of foreign exchange reserves (with declines in reserves having a positive sign). As a second step we add single additional explanatory variables, keeping the total number of variables thus to four. Results for these seven regressions are presented in table 2.

We find that the reform and reserves variables are significant explanatory variables of all categories of flows; the EU-dummy is significant for two of the seven categories. Not surprisingly, we find that the effort in undertaking reform in a particular country is positively associated with all types of flows, except for official and portfolio flows. This suggests that reforms were important motivating factors for private capital flows. Reform effort matters too in determining official flows, but with a negative coefficient. This would suggest that official financing went to those countries that have reformed less. The correct interpretation, however, might be that official financing went to those countries that had reformed less initially, but that some conditionality was being applied in official financing. Reform efforts may then have increased following large official flows and over time official flows to those countries that reformed more declined. This overall negative relationship for official flows thus reflects that official flows preceded reform efforts and fell off as reforms progressed. This result suggests that a dynamic model of official capital flows and progress in liberalization is required. The negative sign for the reform variable in the case of portfolio flows likely reflects that a significant part of portfolio flows was directed toward the financing of fiscal deficits, which may have been larger in countries that reformed less.

For FDI, the dummy for EU-accession is positively significant. EU-accession is probably most important for FDI, as the prospects of increased integration with Western Europe has meant that both opportunities for favorable investments and overall creditworthiness increased in these countries more than in the others.

Table 2. Regression Results—Benchmark Model

	<i>Dependent Variable</i>						
	<i>Total Flows</i>	<i>Total Private Flows</i>	<i>Official Flows</i>	<i>FDI</i>	<i>Portfolio</i>	<i>Short Term</i>	<i>Commercial Debt</i>
Reform Index _t	2.5945 (2.19)	4.0827 (16.94)	-4.2019 (-5.53)	0.8901 (3.07)	0.0146 (18.39)	0.5362 (10.91)	1.1191 (5.51)
EU-Accession	0.9688 (1.68)	2.3376 (3.06)		1.5104 (6.99)	1.4364 (2.43)		
Reserves _{t-1}	-0.1434 (-3.59)	-0.0516 (-2.25)	0.0572 (3.77)	-0.0359 (-3.70)	-0.0023 (-10.84)		-0.0261 (-3.23)
Adj R ²	0.44	0.33	0.50	0.25	0.00	0.01	0.07
No. Obs.	77	77	77	77	77	104	77
<i>Pull Factors</i>							
<i>Fiscal</i>							
Balance _{t-1}	+	ns	=/- ⁴	-	-	+	+
Balance _t	+	ns	+/- ⁴	ns	-	+	+
<i>Private</i>							
Savings _{t-1}	-	-	-	-	-	-	+
<i>Domestic</i>							
Credit _t	ns	-	ns	ns	ns	-	-
<i>Official</i>							
Flows _{t-1}	+	+		+	ns	ns	-
<i>Interest Rate</i>							
Differential	ns	ns	ns	ns	+	-	ns
<i>Push Factors</i>							
LIBOR	ns	+	+	+	+	ns	ns
OECD Growth Rate	ns	+	+	+	ns	+	+

Notes:

1. The estimation procedure is Generalized Least Squares with cross section residual variances as weights.

2. ns = not significant; + = positive significant; - = negative significant.

3. t statistics are in parentheses.

4. Owing to a high correlation between reform index and fiscal balance (0.83), the sign of the coefficient for fiscal balance becomes negative when reform index is dropped from the regression.

The negative sign for the lagged change in reserves variable for most flows reflects the fact that increased creditworthiness of countries, i.e., as they increased reserves, motivated further capital flows. The positive sign for the lagged changes in reserves variable for official flows reflects that, at least initially, official financing was made available on a financing needs basis, i.e., as reserves declined, more official financing was made available. Similarly for portfolio flows, much of which was directed to financing of fiscal deficits, financing needs was an important determinant.

As mentioned, we added to this basic regression a number of additional variables, including each separately. Specifically, we included public sector balance, current as well as lagged one period (to avoid simultaneity between foreign and domestic savings), private savings (lagged one period), domestic credit growth, lagged official flows, and the interest differential. We also include the two push variables, LIBOR and OECD growth rates. Rather than presenting all the detailed regressions results, we simply present whether or not the particular additional variable was significant, and if so, with what sign (table 2).

We find that fiscal surpluses, both contemporaneous and lagged, are positively related with about half of the different types of flows. This suggests that increased fiscal surpluses stimulate foreign savings through a creditworthiness effect. The negative coefficients for official flows show that official flows to the public sector have been associated with larger fiscal surpluses. The coefficient is also negative for portfolio flows—probably because countries with larger fiscal deficits receive more portfolio flows through foreign purchases of government bonds (particularly Russia). Lagged private savings has a negative coefficient for all flows, except for commercial debt flows. This suggests that there is some substitution between foreign and private savings, a general finding for developing countries (see Cohen, 1993). However, the coefficients are small. Concerns about the sustainability of foreign flows—as they end up financing some share of consumption—thus may not be too serious. The positive sign for private savings in the commercial debt flows regression may reflect a creditworthiness effect.

Domestic credit growth is significantly negative in cases of total private flows, short-term flows, and commercial debt flows. This suggests that the typical reinforcing effect of capital flows on domestic credit growth is not prevalent in these countries. This may be because of the poor institutional development of the domestic financial sector. The negative sign may also reflect that the enterprise restructuring required in these countries was often achieved through tight (hard) budget constraints. Countries that had less growth in domestic credit may have been more successful with enterprise restructuring and thus were more likely

candidates for private capital flows, as their creditworthiness in general increased, and as a greater fraction of domestic firms were restructured—and thus were of interest to foreign investors.

Lagged official flows have a positive effect on almost all types of capital flows. Since the regression already controls for the reform effort of the particular country—which thus captures the degree to which official lenders may have been successful in their reform conditionality—there is an independent effect of past official lending on private capital flows. This may be because official lending acted as an important signal to private creditors regarding the commitment of the country to undertake further reforms.

The interest differential variable is significant for only two of the types of capital flows: portfolio flows and short-term flows. Only for portfolio flows does it have the expected positive sign while for short-term flows the sign is negative. This suggests that once one controls for a few basic variables, capital flows generally have not been motivated by arbitrage conditions.

Push factors appear to play a role in motivating capital flows, but with the opposite sign from what is commonly found. Specifically, increases in international interest rates are associated with increased capital flows. Higher OECD growth rates also increase capital flows. This contradictory finding raises some questions of its own, but at least it does not suggest that capital flows to these countries are at risk for increases in international interest rates and OECD growth. It may rather be that increases in OECD growth enhance the supply of foreign savings available for these countries.

Table 3 provides the regression results for the specification chosen for each type of capital flow. The explanatory variables were chosen after some experimentation to achieve a reasonable overall fit for the regression, within constraints of data availability. In the case of total flows, reform efforts, EU-accession and changes in reserves have the same sign as before. Additional significant explanatory variables are the lagged fiscal balance and lagged official capital flows, both with a positive coefficient.

Total private capital flows depend strongly on reform efforts. We again find a positive coefficient for those countries with possible accession to the EU and a negative relationship with the lagged change in foreign exchange reserves—which suggests that creditworthiness is an important factor. Higher (lagged) fiscal savings tend to raise private flows, suggesting that creditworthiness and reform perceptions were influenced positively by reduced fiscal deficits. More generally, the positive relationship between private capital flows and fiscal savings suggests a complementarity between public and foreign savings. We also

Table 3. Panel Data Regressions—Extended Model

	<i>Dependent Variable</i>						
	<i>Total Flows</i>	<i>Total Private Flows</i>	<i>Official Flows</i>	<i>FDI</i>	<i>Portfolio¹</i>	<i>Short-Term Debt¹</i>	<i>Commercial Debt¹</i>
Reform Index _t	2.797 (3.67)**	4.506 (9.82)**	-0.638 (-0.90)	1.472 (6.47)**		-3.286 (-2.91)**	1.665 (1.74)**
EU-Accession	0.643 (1.87)**	2.521 (3.43)**	-2.408 (28.59)**	1.896 (10.93)**			
Reserves _{t-1}	-0.0754 (1.70)**	-0.1185 (-6.72)**	0.0441 (3.02)**	-0.0394 (-5.05)**		-0.0307 (-1.24)	-0.0541 (-2.07)**
Fiscal Balance _{t-1}	0.0478 (2.11)**	0.0843 (2.98)**	0.0394 (2.70)**	-0.0125 (-1.19)	0.0976 (2.00)**		
Private Savings _{t-1}						-0.0243 (-2.14)**	-0.0161 (1.81)**
Domestic Credit _t		-0.0267 (-13.76)**					
Official Flows _{t-1}	0.7074 (9.23)**	0.2143 (5.26)**		0.2027 (10.41)**	0.0760 (1.43)*		
LIBOR _t					-0.3029 (-1.24)		
OECD Growth Rate _t			0.0912 (2.09)**			0.3496 (2.51)**	
Adj R ²	0.49	0.80	0.75	0.46	0.34	0.36	0.92
No. Obs.	74	72	74	74	78	76	76
F value	0.24	1.41	0.73	0.67	3.11	3.00	4.2

Note:

1. Fixed effects model estimation was used for these type of flows, given that the hypothesis that the country effects are the same was rejected (see F values).

* Significant at 10 percent level.

** Significant at 5 percent level.

find a positive coefficient for lagged official flows, a possible confirmation of the signal from past official lending on future reforms and creditworthiness. Private capital flows are negatively related to domestic credit growth, suggesting that contractions in credit growth may have served as signals of reform.

In the case of official flows, the results show that reform efforts enter again with a negative (but insignificant) coefficient. Countries that are candidates to become a member of the EU have received less official financing, suggesting that as they received more private financing and progressed further in reforms, they were in less need of official financing. This need for financing is again confirmed in the positive coefficient for the reserve variable, indicating that declines in foreign exchange reserves are associated with more official financing. Lagged fiscal surpluses have a positive relationship with official flows, suggesting official flows were made conditional on past fiscal efforts. However, the high correlation between fiscal surpluses and reform efforts implies that when the reform variable is removed, the sign of the fiscal surplus variable becomes negative, i.e., there is collinearity between regressors. The interpretation in this latter case is more straightforward—lower fiscal surpluses (higher deficits) are associated with larger official flows. The coefficient for OECD growth rate is significantly positive, suggesting that the supply of official savings may have been a positive function of the business cycle in industrial countries.

FDI, as we showed above, is the most important of private capital flows for most countries. In this specification, FDI is dependent as before on the three major independent variables: reform efforts, EU-accession, and reserve changes. Not surprisingly, as for all private capital flows, FDI is greatly influenced by reform efforts, as the *t*-statistic for the reform index is large. Lankes and Stern (1997), and Martin and Selowsky (1997) had already noted this. Lagged official flows are positively significant, suggesting again a signaling function of official flows.

Portfolio flows appear to be driven by a number of factors, some of which are collinear, thus leading to mostly insignificant coefficients when many variables are included. The best regression result is then also not very informative. Fiscal balance (lagged one period) now appears to increase portfolio flows, a finding different from the earlier regression where the opposite coefficient was found. Interestingly, the interest rates differential variable is not significant. As noted, not all of these relationships are robust to the inclusion of other independent variables, in part likely because of collinearity, but also because portfolio flows are relatively small and have occurred only in more recent years, thus leading to weaker relationships.

Lastly, we regressed the flow of short-term debt flows and commercial debt flows. As noted, short-term debt has become a large share of private capital flows in recent years for a number of countries. Private debt flows and short-term debt flows appear to be driven by the same factors, except for reform efforts. The degree of reform matters in a positive way for commercial debt flows and negatively for short-term debt flows. The negative sign for short-term flows—which differs from the results in table 2—could reflect that lenders were less willing to extend long-term funds, and relatively more willing to extend short-term funds, to countries that had undertaken less reform. Increases in reserves lead to larger commercial debt and short-term flows (the latter is insignificant, however). This suggests that creditworthiness also matters for these flows. Private debt flows appear to be substitutes to domestic private savings as the coefficients are negative. Lastly, OECD growth rates matter for short-term flows. We find no evidence of a push effect, as the coefficient for the LIBOR interest rates is insignificant. In other words, the decline in international interest rates over this period does not stimulate commercial debt or short-term flows. Arbitrage factors (i.e., the interest differential) do not appear to have a significant effect on short-term flows, which is somewhat surprising.

In short, the overall results indicate that flows are driven for most countries by fundamental reforms and creditworthiness. The possibility of EU-accession has been an important determinant of private flows, especially FDI. For official flows, EU-accession seems to have lowered the need for official flows. Increased fiscal savings has led to higher volumes for most flows, while increased private savings have been associated with lower capital flows—suggesting some degree of substitutability between private and foreign savings. Official flows appear to have had important signaling value for private capital flows. High interest rates differentials (adjusted for exchange rate movements) do not appear to have mattered for any set of flows. Push effects are only found for commercial debt and short-term debt flows, with growth in OECD-countries encouraging flows to the region.

Conclusions and Forward-Looking Issues

Capital flows to the CECs/FSU have been increasing rapidly in recent years—a growth rate of 34% per year over the 1991–97 period—but are still a small fraction of global capital flows to developing countries (about 18% in 1997). As structural reforms have progressed, the composition of flows has changed with official flows declining and private capital flows increasing and accounting for about 73% of total flows by 1997. Within

private capital flows, FDI was the most important followed by portfolio flows. As the direct and spillover effects of FDI on human, technological, and physical capital accumulation are crucial for the fast and effective integration of the transition economies to the world economy, this bodes well for these countries.

Perhaps more than in other developing countries, reform efforts have been the most important determinant of private flows, particularly, of FDI. Other consistent determinants of private flows have been prospective EU membership—the 10 countries that applied for EU membership attracted more private flows (and relied less on official flows)—and creditworthiness. Creditworthiness proxies such as increases in reserves, lower fiscal deficits, and higher past official flows, were mostly positively correlated with greater private flows. The association between declines in private savings and higher private debt flows, however, causes some concerns.

One key policy implication is that the sustainability of capital flows is associated with the sustainability of reform efforts. The consistency and continuity of structural reforms—particularly those that are conducive to EU integration and improved creditworthiness—can influence the source (official versus private) as well as the type of private capital flow. For example, the reform's impact on FDI flows is positive while the impact on short-term debt flows is negative. This, in turn, implies that reform efforts matter not just for the level of capital flows, but also for the maturity and potential volatility of flows.

The shift from debt-creating flows to the public sector in the 1980s, to non-debt-creating flows to the private sector in the 1990s, has also implications for the efficiency of resource and risk allocation. Most notably, private recipients of capital have better incentives to allocate capital into higher return projects. The shift to non-debt-creating flows, in turn, implies a better risk-sharing arrangement (of fixed-term foreign currency obligations) vis-à-vis foreign investors.

Another feature of capital flows to the region has been the increase in the share of short-term debt and portfolio flows since 1993. The concentration of these, potentially more volatile short-term flows, in a few countries, raises questions about the sustainability of capital flows and vulnerability to international shocks in these economies. For the majority of countries in the region, however, the absolute and relative level of short-term foreign obligations is small compared to the size of their economies as well as compared to the high levels of their foreign exchange reserves.

So far, only a few countries have had to deal with episodes of overheating. Looking forward, it is likely that more countries will have to

deal with the constraints that the level and structure of external liabilities may pose on macroeconomic and financial policy. The experiences in the region confirm global lessons: dealing with overheating requires determined, counter-cyclical fiscal policies (to counter the potential overheating caused by large capital inflows), and better supervision and tighter prudential regulations on the financial sector (such as raising reserve requirements on foreign borrowings). Sterilization of inflows, and exchange rate flexibility can be effective in the short run to reduce large capital inflows (and their impact), but are usually constrained by quasi-fiscal implications (in the case of sterilization) and by competitive pressures (in the case of exchange rate flexibility), e.g., from exporters.

Looking forward, our analysis raises two other issues of potential concern: fiscal sustainability and the quality of domestic financial intermediation. As already pointed out by Buitier (1996), some countries appear to face fiscal sustainability issues, especially when including public off-balance sheet activities. Buitier highlights the combination of high domestic real interest rates and the rapid buildup of domestic liabilities—both explicit and implicit—through the banking systems. We find evidence here of potential problems with fiscal sustainability from an external perspective, as capital flows are sometimes associated with larger fiscal deficits and high interest rates—a combination that is seldom sustainable. For transition economies, potential or hidden liabilities in state-owned enterprises (e.g., resulting from poor governance), in weak financial institutions, and in insolvent social security and health systems thus need to be carefully monitored. The risk otherwise may be a sudden decline in perceived creditworthiness, leading to a sharp contraction or reversal of private flows.

A second concern relates to the quality of domestic intermediation of (external and domestic) funds. The quality of the financial sectors in transition economies is still weak. Cross-country indicators of quality of domestic intermediation (such as those in the annual reports of the EBRD) suggest for some countries a limited institutional development and a weak financial condition, including large amounts of non-performing loans. While we did not find that the quality of financial intermediation itself was an important explanatory factor of capital flows, it would be useful to further analyze the issue of banking fragility, also as that has been an issue in other emerging markets and likely a key policy area. A particularly useful area of research could be to investigate the interactions between high domestic credit growth, weak domestic financial intermediation, and the type of capital flows.

Endnotes

¹ Excluding grants, the total amount of net flows amounted to US\$ 41 billion in 1996.

² FDI and portfolio flows to all developing countries in 1996 were \$155 billion.

³ The CEE and Baltics country group includes Albania, Bulgaria, Croatia, the Czech Republic, Estonia, Latvia, Lithuania, FYR Macedonia, Hungary, Poland, Romania, the Slovak Republic, and Slovenia. The FSU country group includes Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, the Kyrgyz Republic, Moldova, the Russian Federation, Tajikistan, Turkmenistan, and Ukraine.

⁴ Sobol, 1996, also highlights the rapid surge in private capital flows to Central and Eastern Europe.

⁵ Defined as the sum of foreign direct investment, portfolio flows, commercial debt flows, and short-term flows.

⁶ We use the following 10 countries that have been identified by the EU as candidates: the Czech Republic, Poland, Hungary, Slovenia, Estonia, Romania, Bulgaria, the Slovak Republic, Lithuania, and Latvia. The first five have started negotiations with the EU; we set the dummy equal to two for these countries. For the other five countries, the dummy is set to one, and zero for all other countries.

⁷ We used as much as possible the local Treasury bill rate. For those countries where Treasury bill rates were not available, we used the inter-bank interest rate or the bank-lending rate.

⁸ We would like to thank Michael Dooley for reminding us of this.

⁹ A regression of reform on lagged official flows indeed confirms this relationship: using a fixed-effect estimator, we find that the coefficient for lagged official flows is significantly positive and has a t-statistic of 2.74.

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Fiscal Contingency Planning for Banking Crises

Patrick Honohan

Introduction

The sudden failure of many banks, and the assumption by the government of some or all of their obligations, can place a huge burden on the public budget. The first-best response to this risk is for the monetary authorities to have a robust regulatory regime for the banking and financial sectors—so that the scale of failures is limited by an incentive structure that reduces the incidence of bad banking—and through early intervention of the authorities in failing banks (Caprio and Honohan 1999). But what if the first-best policy fails? How can the fiscal authorities best position themselves to minimize undue pressure on the budget from the financial sector? What estimates can be made of the possible magnitude of such pressures, and of when they will crystallize?

This paper reviews the issues and suggests a methodology for fiscal planning in the face of these substantial risks. Three main objectives are suggested for this exercise. First, the protection of small depositors, and the limitation of adverse effects on confidence and on the functioning of the payments system. Second, minimizing the fiscal costs, both by reducing moral hazard and by limiting the fiscal impact of any given banking losses. Third, insulating the remainder of the fiscal process, as far as possible, from disruption caused by a surge in banking losses—thus smoothing the impact on tax rates and on other expenditures. Evidently, we are at the junction of banking and fiscal policy. The goal of this paper is to explore the role of the fiscal authority at this junction: accordingly we omit reference to many important banking policy aspects that are of less direct relevance to fiscal concerns.

When the banking failures are part of a wider financial and economic crash, the budget will also suffer indirectly from the operation of automatic stabilizers, as the economic downturn weakens tax revenue and increases social protection expenditures. Though important, this indirect aspect is not considered here.

The paper is organized as follows. In section I we review the different ways in which the fiscal authorities have responded to banking crises in the past. Section II outlines the decision tree that should be traversed in the onset of a crisis. Section III describes some of the main approaches

that have been adopted in the literature to the question of early warning of banking crises. Section IV clarifies the concepts of scale, probability, and timing that we propose to use. Section V sets out our practical, but formal, method for quantifying the expected value of the potential fiscal liability. Section VI presents a numerical example of this framework in practice. The final section concludes.

I. Past Experience

Governments do not always assume the liabilities of failed banks. Even in the case of large failures, such as that of the BCCI bank, industrial country governments can and do choose to allow depositors to absorb the losses. In many cases, lengthy delays in compensating depositors, or rescheduling their claims by conversion into long-term government obligations, have effectively imposed costs on depositors even if the nominal deposit is eventually repaid. This has been the experience in cases as different as Guinea and Thailand, for example, in the mid-1980s.¹ Nevertheless, whether because they fear widespread economic convulsion due to the collapse of the payments system, or a generalized loss of confidence, governments more often do assume the liabilities of failed banks, even extending cover to large depositors and foreign lenders.

Estimates of the costs of past banking failures range up to about 40 percent of one year's GNP (for Chile). It is anticipated that a substantial part of the costs of the recent East Asian crisis—now projected in the region of 20–55 percent of GDP for the three worst-affected countries—will ultimately fall on the budget. Such figures point to a problem that is difficult to absorb in normal budgetary arithmetic. The sudden arrival of a huge lump-sum charge on the budget, often with only limited possibility for deferral of the spending over time, can have wider psychological and political impacts, such as potentially derailing a medium-term fiscal strategy, or creating a confidence-based collapse in foreign exchange markets. Indeed, the prospect of having to cope with additional expenditure of several percentage points of GDP often has the effect of inducing policymakers to delay dealing with the crisis in a comprehensive manner, adopting temporary palliatives instead.

Countries have generally dealt with this problem in one of four different ways. First, by brushing it under the carpet—i.e. doing nothing in the hope that the problem will go away. Although this is generally the worst approach, it is also the most common. While it is undoubtedly true that the fiscal liability should not exceed what is socially optimal for the authorities to assume, that does not mean postponing decisions on how to deal with the problem until one has the resources to pay off depositors.

Allowing banks to function in an insolvent or undercapitalized condition has been shown to deepen the hole.

Second, by allowing a higher rate of inflation to reduce the real value of the costs—the so-called inflation tax. By meeting the balance sheet deficit of banks through an expansion of central bank credit, the authorities are accepting the inevitability of a sharp increase in inflation which will have the effect of reducing the real value of depositors' funds (including that of the depositors of the banks that have not failed). This approach also imposes losses on holders of cash (bank notes) and on pensioners and others in receipt of incomes that are fixed in cash terms. A windfall gain is enjoyed by debtors. The inflationary solution resolves the problem without directly impacting the budget, but at the cost of arbitrary redistributions. The surge in inflation—and inevitably accompanying currency depreciation—is also likely to have adverse effects on business and investor confidence. This solution, which was, in effect, adopted in most of the transition economies in the early 1990s, is a disorderly one which addresses few if any of the above-mentioned objectives in a satisfactory way.

Third, by making advance provision, typically through the establishment of a deposit insurance fund. The resources on which such funds can draw may be notional (invested in unmarketable government obligations) or "funded" (for example, invested in external obligations). The insurance fund's income is usually a levy on covered intermediaries varying with the amount insured and sometimes with the assessed riskiness of the intermediary's activities. Many of the insurance funds that are in place have been established in the aftermath of a major crisis, and their pre-funding has typically been inadequate to meet the demands of large or systemic crises. In the case of the U.S. Savings and Loan crisis, the inadequate scale of the resources available to the insurance fund, and of its borrowing authority, has been held responsible for inducing the fund's managers to adopt resolution strategies that ultimately increased the overall fiscal cost while postponing its explicit recognition.²

Apart from its fiscal role, the pros and cons of establishing a deposit insurance fund is debated by banking specialists. On the one hand it weakens the incentive for depositors to monitor the banks, and can greatly exacerbate the moral hazard of risk-taking bankers for whom it provides access to low-cost deposit funding regardless of the risks they assume. This risk can be partly mitigated by other measures designed to provide banks with an incentive to stay in business and by effective prudential supervision. On the other hand it can underpin depositor confidence and help support the development of the banking system. Both positive and negative aspects here are only relevant to the extent that the government's promises are credible.

The fourth way in which fiscal authority may respond is by meeting the crisis when it occurs. This typically involves three elements:

- Assuming some or all of the obligations of the affected banks;
- Restraining interventions into the management of the banks, sometimes including temporary nationalization; and
- Adopting measures to recover as much as possible of the delinquent loans and other impaired assets, often including the establishment of dedicated asset management or recovery companies partly independent of the failing banks.

The precise design of the financial arrangements established between the government and the failed bank in order to restore the solvency of the latter can greatly influence the success of loan recovery, the incentive for more prudent behavior by the bank in future, and the stability of the government's own finances (for some evidence see Honohan, Klingebiel, and Molinari, 2000). It has been suggested that the large fiscal cost reported for the Chilean crisis was exacerbated by the design of the compensation mechanisms put in place for the banks, which enabled these to draw-down funds from the government over many years. Early hopes that these funds would be repaid from subsequent profits were not realized. On the other hand, the famous success of the Swedish asset management companies (helped, to be sure, by an exogenous economic upturn) reduced the net budgetary impact of their banking crisis to a fraction of what appeared at first (Dziobek and Pazarbaşıoğlu 1997).

II. Preparing for the Crisis: The Decision Tree

The first and most important task for preparing a fiscal strategy is to develop a clear decision tree covering the eventualities that might lead to the undertaking of fiscal obligations. In practice, most of the fiscal liabilities that arise are not strictly contingent obligations in any legally binding way. Instead, they are obligations assumed under pressure of circumstances, and often without time for much consideration. It may well be that decisions taken under such conditions will not be optimal. In particular, the assumption by the government of open-ended guarantees in the middle of a currency or banking crisis is often done without sufficient consideration of the potential magnitudes involved and of the alternatives available. Particularly unsatisfactory is a situation where the government's credibility and creditworthiness decline sharply because it assumes obligations that market participants do not believe can be met.

Such a credibility penalty can greatly increase the servicing cost of debt, as well as introducing a large risk premium into all local currency denominated borrowing, including that of the private sector.

In order to avoid this kind of rushed and sub-optimal policy, it is better to establish procedural arrangements and decision-making capacity that can allow a smooth and orderly assessment of evolving risks, despite the speed with which they evolve. When the crisis hits, the Treasury will have to decide what commitments to assume. If there is an explicit deposit insurance fund, drawings on this fund to make good the losses of insured depositors may not require any new commitments by the fiscal authorities. However, such an action could have an impact on the government finances, insofar as the insurance fund needs to liquidate government bonds or promissory notes to obtain cash to pay depositors.

Any sizable crisis will frequently cause claims on the deposit insurance fund to exceed the resources available to it. Here again, depending on the legislation underlying the deposit insurance fund, the government may have undertaken to make good any deficiency of the fund. No new approval of the fiscal authority is formally required in this case either, and it will rarely be good practice for the authorities to try to stall on the payment of legal liabilities in this regard. (Only where the government is already in such a severe fiscal crisis that it is unable to pay other liabilities as they fall due would delays in meeting insured depositor losses be worth considering.) Nevertheless, in practice this now presents the fiscal authorities with an urgent and likely sizable need for cash.

Going beyond what may have been undertaken as part of an explicit deposit insurance scheme, the fiscal authorities begin to have some legal discretion. The failure of one or more large banks will certainly raise the question of whether the adverse effect on confidence and on the functioning of the payments system is sufficient to warrant the emergency extension of government protection to hitherto unprotected depositors. Decisive action is necessary here. If cover is to be provided, it should be provided promptly: a delay is likely to result in heavier losses and in some of the adverse confidence and disruption effects that the cover is designed to avoid. But there should be no presumption of cover being provided: moderate banking collapses affecting an identifiably high-risk segment of the market may not create much contagion. If so, the pressures to cover uninsured depositors should be resisted on grounds of both equity and efficiency. Equity, inasmuch as foolhardy depositors will be remunerated by hapless taxpayers; efficiency not only because of the moral hazard effect on future risk taking of the signal provided by this policy, but also because of the distorting effects of the eventual imposition of taxes to cover the cost.

Making this decision requires some way of making a social evaluation of the risk of contagion and of disruption. This in turn must be set against the other demands on public funds. That is not to say that action should be deferred when the government cannot afford to pay off depositors: the reality must be faced up to promptly, even if the resolution is ultimately phased over a long interval.

In short, it may be possible and desirable to limit the extent of emergency cover granted. With this in mind, it is worth classifying the claims on banks in a number of tiers, corresponding to the likely priority to be attached to protecting the claim-holders.

There will be strong and probably irresistible political pressure to meet the deposits of low-income households. In practice any distinction here will probably have to be on the basis of size of deposit rather than wealth of depositor.³ It is worth bearing in mind in this context that the really poor households in developing countries do not hold bank accounts at all, and that the prosperous middle classes likely to be lobbying for cover in a crisis will have an inflated idea of what a "small" deposit is. As a reference point the cover offered by the U.S. federal insurance schemes—often considered excessively generous—is less than four times annual per capita GNP; the schemes recently put in place in the European Union typically cover about twice annual per capita GNP. Mechanically applying these figures in Thailand would give a range of about US\$5,000–10,000; in Nigeria the range would be US\$500–\$1,000.⁴

Limiting emergency cover to small deposits could reduce the potential liability by a very substantial amount while still fully covering a large proportion of depositors, because the skewed distribution of deposits (many small, few large) means the bulk of the total deposits of any bank comes from a small number of large deposits. However, a risk in practice is that many exemptions from the ceiling on grounds of hardship may be granted, nullifying much of the savings and discrediting the process.

Foreign-currency-denominated deposits present a distinct category. For one thing, political pressure to cover these may be much lower in that—apart from the working balances of trading companies—their holding is widely seen as representing a bet, or at least a hedge, against the government's exchange rate and general economic policy. A government refusal to extend emergency cover to these deposits will often command political approval. Furthermore, loss of foreign currency deposits by large companies or banks is arguably less likely to disrupt the domestic payments system. Finally, the assumption of foreign currency liabilities greatly increases the vulnerability of the budget to exchange rate change. Considering that banking and currency crises often go hand in hand, this is an important and practical consideration (cf. Mishkin, 1997).

Foreign (non-resident) holders of bank deposits exert their own form of pressure on the government to assume the liabilities of failing banks. General considerations of fairness and some legal principles might argue in favor of equal treatment of nonresidents and residents alike, but the risk of disruption of the domestic payments system is much less, and the authorities may well wish to consider limiting payouts to foreign depositors.

However, the foreign depositors can present some threats, and in practice these have been sufficient to gain them cover not only for deposits, but also for non-deposit claims, an experience that goes back for a couple of decades at least (Diaz Alejandro 1983). In principle, though, non-deposit liabilities of banks can and should be treated differently from deposits.

Finally we have equity, and explicitly subordinated debt (for example that introduced in Argentina to improve private monitoring of bank soundness), which the fiscal authorities should not bail out.

III. Cross-Country Approaches to Early Warning in the Literature

A growing literature considers how to identify countries at risk of a crisis, and ideally to predict its timing. This can be of some assistance to national authorities—finding themselves in an “at risk” category from an international study might alert them to some hidden problems. It needs to be said at once that this literature does not offer a reliable predictor of the timing and scale of fiscal burdens. In particular, there are inherent difficulties in forecasting the timing and even the probability of a currency crisis when the crisis is driven by self-fulfilling market expectations in circumstances where multiple market equilibria exist:

We could hope to use theory and past experience to identify those weaknesses that are necessary for attacks to occur and to construct early warning indicators accordingly. But since weaknesses are not sufficient conditions for a crisis, they can only indicate countries that are not immune to speculative attacks. Neither those countries with a reasonably high probability of attack actually facing an attack, nor the timing of a crisis can be predicted. For self-fulfilling crises, the forecasting properties of estimated models are likely to be very disappointing. (Wyplosz 1998)

But we can still assess some aspects of vulnerability and scale. We briefly review three complementary approaches already in the literature.

Watching for Different Varieties of Crisis

Honohan (1997) shows that banking crises come in different varieties and with different causes. In addition to those caused by macro-boom and bust (such as those driven by self-fulfilling expectations), there have also been epidemics of bank insolvency attributable to poor management and other microeconomic deficiencies, not associated with macroeconomic collapses. Furthermore, there have also been many situations where countries faced endemic crises, displaying a recurrent pattern of distress with insolvency and illiquidity (usually traceable to pervasive government involvement) persisting for years. These types of problem seem more amenable to early warning, as the conditions of insolvency are slow-evolving, even if the timing of its revelation is exogenous. If the authorities are alert to the characteristics of these syndromes, they may be able to intervene early. There will be a heightened risk of problems following regulatory and technological changes, including privatization and financial liberalization. Of course, this is primarily the role of the banking authorities, but in the case of the endemic problems driven by excessive government intervention, the fiscal authorities may have a direct role in stopping the rot.

When directed credit, arbitrary and onerous taxation, and other quasi-tax impositions press hard on the banking system, the banks cease to be autonomous profit-seeking institutions and become quasi-fiscal entities, dependent for their strategy and survival on the instructions and decisions of government. The underlying solvency of such banks can quickly be eroded. Here is the emergence of a banking crisis in the fiscal authorities' own back yard, as it were.

Honohan (1997) enumerates early warning indicators that can be used to identify countries at risk of problems. The indicators are different for each type of crisis. (Although that paper was completed before the East Asian crisis, the indicators listed for macro-based crises were already flashing strongly for the subsequently affected countries.) But this approach does not quantify the likely fiscal costs. Its purpose is to signal the need for further detailed examination at the country level.

Expert Ratings and Outer Limits

A rather different approach has been adopted by Standard and Poor's rating agency (Karacadag and Manzer 1997). Though not neglecting the role of micro deficiencies and government interference, their strategy is to quantify the gross banking assets at risk from a major economic downturn. They do this by assigning the country a quality rating based on its vulnerability to asset quality pressure during a recession, and applying a factor (between zero and one) corresponding to the rating to the total

assets of the financial system to obtain a quantification they call “gross problematic assets.”⁵ They also assess separately the risk of a downturn. Although their methodology is not presented explicitly, they state that:

Trends in credit growth (to the private sector and public enterprises), corporate and household indebtedness, asset-price inflation, and external funding of financial institutions are key indicators of leverage. Rapid increases in two or more of these indicators denote a growing, and possibly excessive, degree of economy-wide leverage.... The rankings are expressed in terms of the potential level of problematic assets that the financial system may accumulate in a reasonable worst-case economic downturn. They reflect Standard & Poor’s appraisal of factors such as financial sector management and regulation, the pace of change in the regulatory and operating environment, the degree of macroeconomic volatility, and the extent of moral hazard and information deficiencies within the country.

The quantification provided by S&P is presented as a range—quite a wide one in practice. It does not aim to be a measure of the direct exposure of the fiscal authority, but of the gross exposure of the economy (as measured by the size of problematic assets), which is seen as having both direct and indirect effects on the budget. Referring, as it does, to a “reasonable worst-case economic downturn” and to the total of problematic assets, it is clearly pointing to outer limits, and as such is closer to the VAR approach than to an expected value approach. Assuming that not all problematic assets would convert into total loss, the percentages of GDP shown by S&P would exceed the fiscal liability by a large margin even in the “worst case economic downturn.”

Predicting When the Crash Will Come

A third approach is exemplified by Demirgüç-Kunt and Detragiache (1998a, 1998b, and 1999), who employ an econometric model (pooled time-series cross section logit) to explain the incidence of banking crises. This draws on observable macroeconomic measures (including GDP growth, change in terms of trade, real interest rate, inflation, growth of credit, fiscal surplus, reserves cover for the money stock, and whether there has been a recent financial liberalization). If the model is used to warn of a crisis whenever the fitted probability of crisis exceeds the population average incidence, the equation is successful in classifying (within sample) about two in every three country/year points as either a crisis or not a crisis, and as such provides valuable information about the contributory factors to and triggers of crises. Of course, despite being proba-

bly the best available, such an equation cannot be used in a mechanical way as a forecasting tool, being subject to a familiar testing drawback: it generates too many false alarms (about six for every correct alarm during the sample period). Raising the threshold probability to exclude some of these false positives results in too many actual crisis events slipping through. Fully one half of the crises occurred when the fitted probability was .07 or less. Only in a small number of extreme macroeconomic conditions does the equation generate high crisis probabilities: all but 10 of 36 actual crises have a fitted probability below 0.25.

Furthermore, as shown by Demirgüç-Kunt and Detragiache (1999) this kind of model, used out-of-sample, would not have given any clear signal of the East Asian crisis. Even as late as May 1997 the model would not have rung alarm bells for the East Asian countries, for which "the overall image... would have been a rather reassuring one," assigning, for example, a probability of only 0.033 to a Thai banking crisis. A major practical obstacle to the effective use of such models is that they rely heavily on macro-financial indicators such as interest rates and exchange rates, whose sudden spikes are hard to forecast; little advance warning can be obtained from just this information. To be sure, longer-term institutional and policy factors that predispose a country to crisis are also included as explanatory variables in these and similar studies (for example, Hardy and Pazarbaşıoğlu, 1998; Keefer, 1998), but in practice, quantification of such factors is highly imperfect.

With such low estimated probabilities, the main potential value of this sort of exercise is not so much a matter of spotting the next crisis, as a way of economizing on precautionary costs. In other words, although it seems that we cannot hope for a reliable forecasting system for banking crises, based on econometric analysis of macro variables, or more generally on information that is quantified and readily available to the econometrician, these forecasting models can be used in the context of the decision whether or not to take costly precautionary action. Even if one is not able to predict the timing of the crisis with much confidence, there are still gains to be made by avoiding unnecessary and costly precautionary action being taken when the probability of imminent crisis is low. Depending on the relative costs of entering a crisis without having taken such precautions (as against taking the precautions unnecessarily) a net saving can be made over a period of time using the model's predictions together with a trigger point for action.

Country Characteristic Correlates of the Size of Crisis

A less studied statistical issue is what country characteristics are associated with costly crises, regardless of when they happen. Honohan (1997)

reported that few of the main macroeconomic characteristics of countries appear to be correlated with the relative size of resolution costs, though disproportionately higher resolution costs seem to have been experienced by economically smaller countries as measured by GDP.⁶ However, policy actions taken to deal with a crisis, once discovered, can have a significant effect on the eventual fiscal cost (cf. Honohan, Klingebiel, and Molinari, 2000).

IV. Scale and Probability

The two most commonly asked questions in regard to the fiscal impact of banking crises are: “How big is the problem?” and “When will it hit us?” In practice these are questions on which precision can rarely be expected, even in mature and sophisticated financial systems. Furthermore, those asking the question are often unclear about what precisely they mean. The purpose of this section is to clarify the concepts of scale, risk and timing that we propose to employ in the contingency calculations.

Some situations are more tractable than others. The situation is clear if a bank fails because of massive fraud, leaving few assets and an easily quantified block of insured depositors. The net liability in this case is substantially crystallized, and the uncertainties of future recovery are small. In contrast, the situation of a bank that has hit liquidity problems following a capital outflow in the face of an equity market collapse and a speculative attack on the exchange rate may be extremely difficult to assess. The potential for repayment of its loans is highly contingent on the subsequent macroeconomic evolution, and the fact that the condition of the borrowers is not widely known inhibits the establishment of an unambiguous market price. Here there is both a deficiency of current information and a high degree of volatility of future developments.⁷ Because of the different time-scales over which the uncertainty is resolved, we need a concept of “scale of the problem” that can accommodate both types of situation. Perhaps the most useful and unambiguous concept of “scale of the problem” is obtained if we think of the fiscal authority as having sold a put option to the banking system. If the banks get into trouble, they will exercise this option by failing—and thereby triggering a fiscal outlay.

This option value concept accommodates both the remote contingencies that need to be borne in mind even in a healthy system, and the certain payments that will have to be provided for where a bank has closed and the depositors have been promised payment. In the first case, where the eventual outlays are heavily contingent on the evolving situation, the option value takes account of the range of probabilities involved. The option is “out of the money” and its value essentially arises from future

risks. In the other case, the situation has crystallized, even though the amounts involved may not yet be known. The option is then “in the money” and its value is dominated by a loss that has already crystallized.

To adopt the option value concept is not necessarily to use valuation formulas based on known stochastic processes. That could be appropriate if the risks involved were chiefly driven by movements in observable market prices, but this is not so. Instead, we will simplify the question by assuming that the fiscal authority is conducting an assessment of the situation at a particular moment when some matters have crystallized, but when the impact of specific future or recent shocks has yet to be felt. Thus there is a “present”—represented (albeit imperfectly) by the accounts of the banks—and an “immediate future”—in which specific shocks may worsen the situation. For such circumstances, traditional expected value calculations will provide an adequate approximation unless the risk of crisis is low.

To take account of the longer-term risks that face even a healthy banking system, we could add an additional component, not based on the current condition of the banking system, but at most on the broad institutional and environmental conditions of the country. As mentioned above, there is little firm basis for making such distinctions. Instead, a common allowance for the long-run expected fiscal liability from a currently healthy banking system can simply be added to the estimate derived from the assessment of the short-run exposure.

In arriving at a final figure for the potential fiscal liability, it is worth bearing in mind that banks are required to maintain a minimum level of capital in relation to their total risk assets. This capital appears in the balance sheet as a liability—owed in effect to shareholders or other subordinated claim holders. The shareholders’ funds or net worth are the residual item: a decline in the true recoverable value of the bank’s assets is, in the first instance, effectively absorbed by this element of capital. If this capital falls below the regulated amount, it has to be topped up for the bank to remain in operation. But (assuming the accounts to be otherwise accurate) it should be possible to find shareholders willing to put up the additional capital as long as the net worth of the bank remains positive. Indeed, shareholders may be attracted beyond that point, considering that the bank’s business embodies a franchise value that will generate future profits whose value is not recognized in the balance sheet. Arranging for such an injection of funds may not be easy—especially at times of crisis. There may be a role for government to assist in this matter, but the essential point remains that sizable losses to the banking system can occur without the government having to step in to bail out the depositors. The figures for overall loan-losses of the banking system will overstate the potential fiscal liability by at least the size of the banks’ true initial capital.

V. The Proposed Framework

Even auditors and practitioners with access to detailed bank-level information often refuse to make a quantitative forecast of the potential fiscal cost of a financial crisis, even when the crisis has struck. But this is what we must try to do. It might appear that a reliable balance sheet would inform us of the capital deficiency of the banking system, but this is rarely the case in a crisis. Not only may the underlying data be unreliable, but more important, the adequacy and accuracy of the provisions made in the banks' accounts for loan losses cannot be assured. Even confining oneself to a static picture, an accurate estimate of the gross deficiency of the banking system may require second-guessing the bank's accountants. But in addition, account has to be taken of the vulnerability to future or recent shocks not reflected in the accounts.

To formalize the question, let us suppose that there are only two relevant time points: now and the future. The bank has certain earning assets—market-related investments and non-marketable advances; these have been financed by deposits, and by shareholders' capital. The future value of the earning assets is uncertain. But in the future period, uncertainty will be resolved and the residual net value of shareholders' capital will become known. From the fiscal authorities' viewpoint, the important questions are: What is the probability of the net capital value being negative, and what is the possible size of such a deficiency?

Different classifications of the bank's balance sheet⁸ will be relevant for different shocks. One general-purpose classification is as follows: represent the bank's balance sheet in simplified form as: $A+B=C+D$ where A is advances, B is market-related investments (bills), C is capital, and D is deposits. At present, A and B are uncertain; D may be taken as known, and C is a residual and hence unknown. We postulate a measurement error u and a vector of future disturbances i affecting asset value. With these definitions, let us write the future value of capital as the following function:

$$C = A + B - D.$$

We can use the same identity defining capital C , focusing on alternative elements A and B of the balance sheet as the most significant for whatever scenario is at hand, leaving the remaining net items, little affected by the shocks under consideration, to be included as the residual D .

We now recognize the distinct contribution of future shocks v and current measurement error u to the value of A , B , and D relative to what would occur in the absence of any disturbances:

$$\begin{aligned}
 A &= \alpha_0 + \alpha_1 u + \alpha_2 v \\
 B &= \beta_0 + \beta_1 u + \beta_2 v \\
 D &= \delta_0 + \delta_1 u + \delta_2 v .
 \end{aligned}$$

Assuming that the residual D (deposits) is measured without significant error and that their future value is not much affected by economic shocks, we can write: $\delta_1 = \delta_2 = 0$. The non-stochastic part of capital $\gamma_0 = \alpha_0 + \beta_0 - \delta_0$ is similar to the accounting value of the bank's capital.

If the stochastic terms u and v are independently distributed with probability density ϕ and ψ , respectively, then the expected value of bank capital is:

$$\int_{-\infty}^{\infty} \int_{-\infty}^{\infty} C(u, v) \phi(u) \psi(v) dudv = \gamma_0 + \gamma_1 \int_{-\infty}^{\infty} u \phi(u) du + \gamma_2 \int_{-\infty}^{\infty} v \psi(v) dv .$$

Note that this is not the same as the market value of the bank's shares. That equivalence would only hold if (i) the full information set were available to the market, (ii) market investors were risk-neutral, and (iii) there were no limited liability, and that shareholders would cover any occurrence of negative capital. The third point here is of course the source of the potential fiscal liability. Thus we may write as an estimate of the value of the potential fiscal liability $E(F)$, *minus* the expected value of the bank's capital conditional on it being negative:⁹

$$E(F) = - \int_{C < 0} C(u, v) \phi(u) \psi(v) dudv .$$

Finally, the potential liability from each bank needs to be summed to obtain the total potential liability from the system as a whole.

This formulation can be adapted to many different environments.¹⁰ In particular the type of shock being assessed will typically dictate a particular classification of the portfolio in order to isolate that part which is particularly sensitive to the type of shock at hand. It highlights four elements that need to be quantified:

- Deficiencies in accounting estimates of the current (i.e., pre-shock) condition of the banking system;

- The size of different elements in the banks' portfolios;
- The size and probability of likely shocks; and
- The proportionate impact of any given shock on the value of key elements of the banking system's portfolio.

Accounting Deficiencies

The task of spotting instances of fraud, and of ensuring that the portfolio of market-related investments are marked-to-market, where appropriate, are essentially matters for the bank regulator, as is ensuring that the banks have made adequate provision against loan losses. Second-guessing the assessment of the bank regulators of the adequacy of the banking system's accounts is not really something that can usually be recommended for the fiscal authority. What the fiscal authority needs to do is to ensure that it is adequately informed about the degree to which regulatory assessments of bank capital deviates from published data.

Size and Composition of the Portfolio

Subject to the question of accounting deficiencies, it is a relatively simple matter to assemble data on the elements of the balance sheet. Much of the information is publicly available on an annual or quarterly basis. Less readily available may be such sub-aggregates, such as that part of the portfolio that is denominated in foreign exchange, or that part of the loan portfolio that is advanced for property development. Perhaps the most important caveat is that system-wide averages are totally inadequate. The incidence of bank failure is never uniform across the system, and the authorities may have to pay for costly failures even in a system that, as a whole, is solvent.

Size of Likely Shocks

Although there is a large variety of potential shocks that we can imagine impacting the banking system, three particular types crop up with such regularity that they are worth special attention. These are: exchange rate changes, property (real estate) price collapses, and macroeconomic recessions. Evidently these need not be independent occurrences, but they have rather distinct patterns of impact on the portfolio of the banking system. At the time of a fiscal contingency calculation, it is typical that one or more of these shocks is considered particularly likely, or is in

progress. That will provide some guidance as to what type and range of shocks should be taken into account.

The Multiplier

For marketed securities, historical price and return correlations can allow some estimates of the likely portfolio impact of certain shocks, though this is less true for the emerging markets where historical experience is short and volatile. Furthermore, it may be unwise to rely too heavily on historical correlations where we can have little confidence in the time-invariance of the processes involved. For loan portfolios there has, unfortunately, been very little work done that would allow us to quantify the impact of a shock of a given type and size on the value of elements of banks' loan portfolios.

Our Framework

Depending, then, on the type of shock that is anticipated, or in progress, or on the suspected source of accounting deficiencies, we have a broad framework that can be adapted to the particular circumstances by appropriate re-classification of the banks' balance sheet and application of the multiplier and probabilistic approach outlined above. Possible classifications into *A* and *B* for a selection of scenarios is shown below. The purpose of the classification is to allow separate treatment of the two main elements affected by the type of shock shown (*C* is always capital, and *D* the net residual).

Thus the proposed method involves four key steps. First, specify the shocks focusing on the recent or imminent events that are the source of current anxiety. Second, split the balance sheet: i.e., obtain balance sheet information for each of the main banks, and reclassify into categories differentially affected by the shocks as exemplified in the table of the previous section. Third, if considered necessary (and it usually will be) make adjustments for problematic accounting. Fourth, apply reasonable multipliers to the chosen balance sheet categories and on a bank-by-bank basis; calculate capital deficiencies for each bank and sum.

	<i>A</i>	<i>B</i>
Exchange rate shocks	FX-denominated loans (affected both directly by currency translation and indirectly by changed loan-loss experience)	Other FX-denominated assets (net) (affected mainly by currency translation)

	<i>A</i>	<i>B</i>
Property market shocks	Loans to real estate developers (net worth of borrowers directly affected)	Other loans secured on real estate (value of collateral declines)
General economic shocks	Loan portfolio (net worth of borrowers directly affected)	Marketable investments (market values affected)
Problematic accounting	Government-related loans (unrecognized collection problems caused by political influence)	Other loans (evergreening; over-optimistic collateral valuation, etc.)

VI. A Numerical Illustration

To illustrate how the framework of the previous section can be applied in practice, we sketch an application to an exchange rate shock, using data that have been constructed to fit some typical features of recent country experience (the numbers used are based on publicly available data for an actual recent case, albeit with some modifications).

As with many other countries, the country on whose experience we draw saw a sudden end to a period of several years of virtual exchange rate stability. The prospect of a sharp fall in the currency naturally raised the question of the impact on the banking system, not least because the banking system was heavily dollarized, with some two-thirds of the loans denominated in U.S. dollars, and an even higher proportion for deposit liabilities. Some observers felt that a contingency provision should be incorporated in the 1999 budget in case of a need to meet banking insolvency. While the collapse of effective demand from important export markets was an additional negative factor affecting the local economy and banking system, the possible impact of the exchange rate can be separately analyzed.

The system has several dozen banks; although we have modeled only the largest 20, we will see that it is crucial not to aggregate the data too much.

Ignoring, for this example, the issue of possible accounting deficiencies, we proceed directly to identifying the elements of the banks' portfolios most likely to be affected by exchange rate change. The foreign currency business must be identified, and within this the FX-denominated loans, as these will be subject to heightened loan-loss experience in the

event of a large devaluation.¹¹ Thus, in the balance sheet identity discussed above defining capital,

$$C = A + B - D$$

we re-interpret A as FX-denominated loans; B as net other FX-denominated assets, and D as the net remainder of the balance sheet. The disturbance v is the percentage exchange rate movement, which affects the three elements of the right hand side in quite different ways. As a reasonable first approximation, we may take the multiplier a_3 as zero—no effect on the local-currency-denominated part of the portfolio; the multiplier a_2 then represents the valuation change $a_2 = B$; and the multiplier a_1 (applied to the FX-denominated loans) representing the combined impact of valuation change and heightened loan-loss experience might be modeled as:

$$\alpha_1 = (1 - p) A.$$

This particular specification of α_1 implies that the increased loan-loss experience is proportional to the exchange rate shock. That is a restriction that can be relaxed, allowing the loan-loss experience to be either more or less sensitive to the exchange-rate shock:

$$\alpha_1 = (1 - p(v)) A.$$

All that is now required to implement the model is a numerical value for p , and a set of probabilities for the possible exchange rate changes.

By inputting the totals for A , B , and D for each bank and summing, we obtain (table 1) the estimated net deficiency of total bank capital C (below a regulatory target of 8% of total assets) for different values of v and $p(v)$. Table 2 shows what we would get if instead we had just inputted the system aggregate balance sheet numbers—a great underestimate of the deficiency. This is because some banks will do better than others, but the surplus of one bank is not available to pay the deficit of others.

As discussed above, capital deficiency below regulatory target does not trigger a need for fiscal injection. In order to approximate the maximum potential fiscal liability, we compute the aggregate value of negative capitals, summed from bank-by-bank calculations (table 3).

Combining this information into one expected potential fiscal liability $E(F)$ requires assigning probabilities to the exchange rate changes and choosing a specific mapping $p(v)$ —in bold in table 3. The spreadsheet on which these tables are based then reveals the value of $E(F)$. Thus for the

Table 1. Aggregate Value of Bank Capital Deficiencies below Regulatory Target in National Currency Units

<i>Billion LCUs</i>	<i>v =</i>	0%	14.3%	25%	40%
	0.1	0	0	0	0
	0.2	0	0	0	0.5
<i>p(v) =</i>	0.3	0.7	0.9	1.7	3.8
	0.4	3.0	4.2	5.7	9.7
	0.5	7.7	9.8	12.8	22.2

Note: *v* is percentage depreciation; *p(v)* is percentage loan-losses.

Table 2. Misleading Estimates of Gap Based on Aggregate Data

<i>Billion LCUs</i>	<i>v =</i>	0%	14.3%	25%	40%
	0.1	0	0	0	0
	0.2	0	0	0	0
<i>p(v) =</i>	0.3	0	0	0	0
	0.4	0	0	0	0
	0.5	0	0	0	4.1

Note: *v* is percentage depreciation; *p(v)* is percentage loan-losses.

Table 3. Potential Fiscal Liability

<i>Billion LCUs</i>	<i>v =</i>	0%	14.3%	25%	40%
	0.1	0	0	0	0
	0.2	0	0	0	0
<i>p(v) =</i>	0.3	0	0	0	0
	0.4	0	0	0.6	2.4
	0.5	0.5	1.2	2.7	6.9

Note: *v* is percentage depreciation; *p(v)* is percentage loan-losses.

Table 4. Probabilities and Loan-Loss Mapping

	<i>v =</i>	0%	14.3%	25%	40%
<i>Prob (v)</i>		0.15	0.25	0.35	0.25
<i>p(v)</i>		0.1	0.2	0.3	0.4

Note: *v* is percentage depreciation; *p(v)* is percentage loan-losses.

probabilities and loan-loss mapping given in table 4, the expected potential fiscal liability is calculated at 0.6 billion.

The crucial quantitative assumptions are those of table 4. We have not offered any formal methodology for filling this table. The assessment here must, for the present, be based on subjective judgment. Nevertheless, the methodology allows this judgment to be combined in a systematic way with the quantitative information that is available.

Concluding Remarks

Little precision can be hoped for in this area, yet there is a constant demand for an estimate of the likely fiscal costs of future banking crises. This paper shows how information that is typically available to the authorities could be used to obtain an indication of the order of magnitude of the direct fiscal liability. The information required is on the size and composition of the balance sheet of the banks, and on expert assessments of (i) the accuracy of this accounting data and (ii) specific known short-term risks to which the components are subject. The method distinguishes between short-term and long-term risks, and between the measurement problems of already crystallized losses, and the changing risks for the immediate future.

It is acknowledged that inclusion by the authorities of an explicit or implicit contingency for banking collapse in their fiscal calculations might in itself risk worsening the moral hazard in the system, or destabilizing expectations. But the risks of not making contingency planning generally outweigh the risks of sending confused signals. And insisting on ignorance would be a very poor way of protecting against making announcement errors that trigger panic.

Endnotes

¹ See Baer and Klingebiel (1995) for some historical accounts of experience with uncompensated depositors.

² Thus the insurance fund packaged the sale and assumption arrangements whereby insolvent institutions were disposed of in such a way as to give the purchasing institutions tax write-offs valuable to them but costly to the budget (White 1991).

³ Though an attempt could be made to limit the number of payouts to a given household to deal with the problem of systematic splitting of accounts to increase protection (“smurfing”).

⁴ As it happens, both of these countries have, or are now introducing explicit deposit insurance schemes, so that this discussion of emergency cover does not apply strictly to them.

⁵ This is similar to the concept of “Potential Future Exposure (PFE)” used by the Basel Committee in its 1999 advisory paper on highly leveraged funds, and defined as “How far could a contract move into the money over some defined horizon and some confidence interval.”

⁶ On average, halving a country’s size (GDP) increases the resolution cost as a share of GDP by one tenth. This correlation is robust to the inclusion of other explanatory variables.

⁷ While some of the bank’s assets can be marked to market, others have an option value that is likely to be more valuable to the bank than to any prospective purchaser because of the private information that the bank holds. Although it would be convenient if these two sources of uncertainty could be kept distinct, they will both enter into a market valuation of the bank’s net worth, and will also influence the net present value of the government’s liability.

⁸ Not forgetting that off-balance sheet items can also carry risk.

⁹ This cannot be expressed as the sum of independent integrals in u and v respectively. If conditions (i) and (ii) prevailed, then the market value V of the shares would equal the sum of the expected value of bank capital and of the potential fiscal liability as defined: $V = E(C) + E(F)$. This relationship could potentially be of use in approximating the fiscal liability.

¹⁰ This procedure gives a maximum fiscal liability, as it implicitly assumes that the bank will be made whole by the fiscal authority. Recalculating to allow for loss absorption by other claimants is a straightforward exercise.

¹¹ Published data do not separately identify FX-denominated business in the country in question, but we do have system-wide averages, which have been applied to each bank in this numerical example.

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Hidden Deficits and Contingent Liabilities

Homi Kharas and Deepak Mishra

Introduction

It has been repeatedly observed that policymakers in both developed and developing countries have been unable to credibly commit themselves to letting large financial institutions and domestic firms fail during a financial crisis. The problem is acute in developing and transition countries—where financial crises are more frequent and more severe, and where regulatory mechanisms to minimize governmental interventions are lacking.¹ The fiscal costs of such bail-outs and restructuring of public and private enterprises have been found to be large—in some cases exceeding 50 percent of the country's output²—and have given rise to a growing literature on how government's contingent liabilities should be managed.

One of the most widely used frameworks to identify and classify contingent liabilities has been suggested by Brixi (Polackova 1998; see also paper in this conference document). It divides government liabilities into four types: direct explicit, direct implicit, contingent explicit, and contingent implicit. It requires policymakers to identify the government's liabilities, classify them into the above four categories and then assign probability to each of these identified liabilities (that they will be realized in the short and medium run) and then measure their fiscal impacts. This approach has been found to be useful in analyzing contingent liabilities in developing countries, especially for countries in transition.³ It, however, is not suitable to address issues such as: when contingent liabilities are most likely to be realized, and by how much contingent claims have been absorbed by the government in the past—and under what circumstances. For example, it is assumed that the probability that a certain contingent liability will be realized is exogenous to the general macroeconomic conditions, which is unlikely to be true. Further, the approach does not lend itself easily to undertake cross-country empirical studies.

In this paper we take a positive step toward quantifying the fiscal cost of realized contingent claims, and show that these costs have been closely associated with the occurrence of financial crises. By doing so we fill the missing link between the existing approach of managing contingent liabilities and the literature on financial crises—showing that the task of predicting when and how much contingent liabilities will be realized is

most useful when carried out jointly with the exercise on when the economy will be hit by a financial crisis and how severe the crisis will be. We provide a simple methodology to estimate the fiscal cost of contingent liabilities by tracking the movement of macro variables—such as government debt, budget deficits, and such other sources of revenue as seignorage—over a long period of time. Given the observation by many previous researchers that financial cost of restructuring and bailing-out of corporate and financial sectors and quasi-fiscal activities are often financed outside the budgetary system, we argue that the size of these off-budget expenses and gains and losses in the capital account arising from fluctuations in relative prices (real exchange rate, domestic inflation, change in cross-currency exchange rate) provide a rudimentary approximation of past realized contingent claims. Specifically, we compute the extent by which government's liabilities have increased in excess of the reported budget deficits over a certain time period. This is referred to as the hidden deficits, and is used to estimate the magnitude of contingent claims that have actually been absorbed by the government during that period.

The paper makes two important observations. First, there are significant differences between developed, developing, and transition countries in the way contingent claims have been accounted for in their respective budgets and the size of their realized contingent liabilities. The magnitude of these contingent liabilities are found to be smallest for developed countries and largest for some of the transition countries and do not necessarily disappear when averaged over a long period of time. Second, there is a strong positive association between the size of hidden deficits and the number of currency crises the country has experienced over time.

There are however limits on what the proposed methodology can be used for and how the results in this paper can be interpreted. The first important point to be noted is that we use gross debt rather than net debt (i.e., net of foreign assets such as international reserves and domestic assets of the government) in the estimation of hidden deficits. Given that for transition countries we include the gross liabilities of the entire public sector including that of the public enterprises, but do not include their assets, our measure of hidden deficits is likely to be higher than what previous researchers have found. We find however that excluding the liabilities of institutions other than the central government does not result in zero hidden deficits, suggesting that not all hidden deficits are because of the inclusion of public enterprises. Second, in some countries, especially in developed countries, part of the fiscal costs of contingent claims are likely to be included in the budgetary process, implying that the hidden deficits are likely to be smaller than the actual fiscal cost of the contingent claims that were absorbed by the government. Similarly, there may be some expenses that are included in our definition of the hidden deficits,

such as the amount raised through a zero coupon bond, which may not have been used to meet contingent claims. The use of an aggregate approach—in which all expenses outside the budgetary system and capital gains and losses due to price movements are attributed fully to realization of contingent liabilities—is likely to lead to underestimation of the actual realized contingent liabilities in one year and overestimation in another year. In order to minimize such biases, we thus take the average hidden deficits (averaged over 15-18 years) as the measure of past-realized contingent claims.⁴

The rest of the paper is organized as follows. In section I we elaborate more on how our concept of hidden deficit can be used to quantify the fiscal impacts of contingent claims. In section II we show existence of large hidden deficits in selected countries, with particular emphasis on countries in transition. In section III we link hidden deficits to currency crises. The last section concludes.

I. Measuring Hidden Deficits

As our methodology involves tracking the movement of fiscal variables over time, we begin with a discussion of the measurement and methodological problems in defining the budget deficit as currently practiced. Blejer and Cheasty (1991) note that “conventional measures of the fiscal deficit miscalculate the public sector’s true budget constraint and give a misleading picture of the economy’s fiscal stance.” Several economists instead have proposed that the true budget deficit of the public sector be computed not from the flow of cash revenues and expenditures, which currently are the basis of the conventional measure, but as the change in net worth of the public sector. While theoretically appealing, this approach also suffers from measurement and definitional problems (Blejer and Cheasty 1991). It is clear from the growing number of empirical efforts to reconstruct “net worth” accounts⁵ that the correlation between this measure of the deficit and the conventional measure is quite low.

To our knowledge, there have been no studies that look at net worth measures for the public sectors of developing countries. Intuitively, we believe that the deficiencies of the conventional measures of the public sector surplus are even more severe in developing countries relative to developed countries⁶ for a number of reasons. First, because public investment in developing countries represents a significantly higher share of total public spending than in developed countries, the failure to differentiate between current and capital spending is more misleading. Second, because developing countries borrow in foreign currencies, and in a variety of foreign currencies reflecting donor government aid programs, they are especially vulnerable to capital gains and losses stem-

ming from exchange rate changes. Finally, as recent crisis events have clearly shown, the contingent liabilities assumed by developing country governments can be very large indeed (for example, some estimates of the costs to the public sector of Indonesia's 1998 banking crisis are over 50% of GDP).⁷

We distinguish between the flow definition of deficit (the conventional one) from the stock definition (the actuarial one). These deficits can be estimated from the following equations respectively:

$$D_t^c = r_t B_{t-1} + (G_t - T_t) + (H_t - H_{t-1}) \quad (1)$$

and

$$D_t^a = (B_t - B_{t-1}) + (H_t - H_{t-1}) \quad (2)$$

where D_t^c and D_t^a are the conventional and actuarial deficits in period t respectively, G_t and T_t are the government expenditure and tax revenues respectively, B_t is the stock of debt (foreign plus domestic) in period t , and H_t is the base money. Hidden deficit (D_t^h) is defined as,

$$D_t^h = D_t^a - D_t^c \quad (3)$$

Theoretically speaking, the conventional and actuarial deficits should be identical and hidden deficits should equate to zero in every period. But as Eisner and Pieper (1984) point out, budget flows do not distinguish between current and capital accounts, and measures of surpluses and deficits may be inconsistent with changes in the real value of net debt. Capital transactions, gains, and losses in the capital account arising from fluctuations in relative prices (real exchange rate, domestic inflation, change in cross-currency exchange rate) are excluded from budgetary accounts even when they affect the total stock of government debt. Further, many financial and corporate restructuring and realized contingent claims are sometimes excluded from budget deficits even when they contribute to a rise in government's liabilities. The fiscal impact of sterilization of capital inflows and other quasi-fiscal costs are sometimes categorized as capital account expenditures and thus excluded from the flow definition of the budget deficit.

After defining the concept of hidden deficit, the second task is to show that its existence can be attributed to realization of contingent liabilities in the past. Daniel, Davis, and Wolfe (1997), who focus on the fiscal accounting of bank restructuring, find that in many countries non-cash operations are excluded from the budget, and that these exclusions are significant. Brixi, Ghanem, and Islam (1999) note that in the Czech Republic and FYR Macedonia a significant amount of government activities, including expenditure on programs geared toward bank revitaliza-

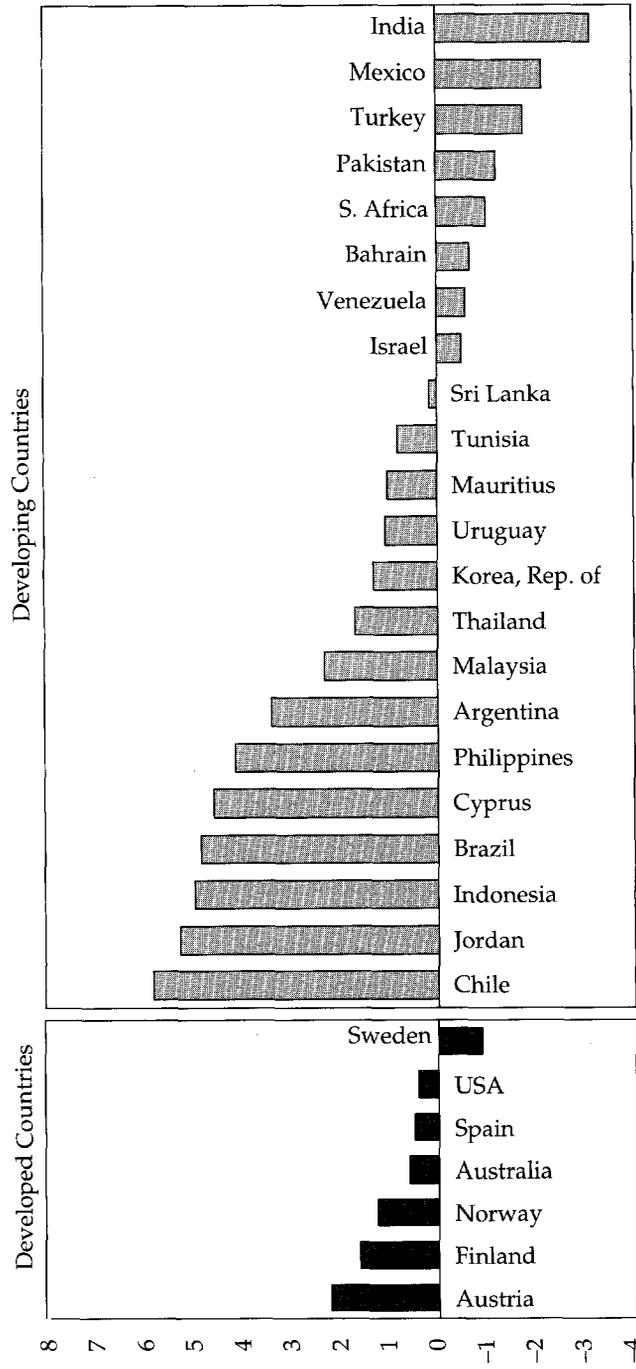
tion, are financed outside the budgetary system. Easterly (1998) notes that countries have managed to meet IMF's budget deficit target without a proportionate decline in their total indebtedness, either by drawing down their assets or shifting expenses to outside the bounds of the budget. Kharas (1997) reports the large size of extra-budgetary expenditures in the case of the Philippines for the 1970–90 period, most of which are likely to have been incurred for restructuring the financial system following currency crises in 1983, 1984, and 1986. It is widely recognized that the treatment of financial cost of restructuring, bailing-outs, stabilization and revitalization of the corporate and financial sectors outside the purview of the budgets—i.e., as extra- or off-budget items—are the norms rather than the exceptions in developing countries.⁸ In light of these findings, we think it is reasonable to use the concept of average hidden deficits as a crude measure to quantify the size of past realized contingent claims.

II. How Large Are These Hidden Deficits?

In this section we compute hidden deficits for 33 developed, developing, and transition countries and provide some inter-country perspective on the deficits' magnitude. Data on B_t/Y_t and D_t^c/Y_t and Y_t , where Y_t is the economy's GDP in period t , for all countries other than the transition countries, are obtained from the World Development Indicator. All the variables are converted into current price in U.S. dollar.⁹ Data for these countries are available only for the central government.¹⁰ For the four transition countries, namely the Czech Republic, Hungary, Poland, and Russia, the corresponding data on debt-output ratio are obtained from Datastream, as relatively longer time series are available as compared to the World Development Indicator. However, Datastream reports the debt and deficit pertaining to the general government rather than the central government. The data on base money, H_t , is obtained from the International Financial Statistics (line 14). Figure 1 shows the size of the average hidden deficits for some of the selected countries.¹¹ We calculate the actuarial deficits for each of these countries using equation (2) for each year between 1980–97 (where data are available), and take a simple arithmetic average for the entire sample period. We then subtract it from the average conventional deficit as reported in the World Development Indicator.

Figure 1 illustrates the following two important points. First, hidden deficits are systematically larger in developing countries than in developed countries. Although in some of the Nordic countries, such as Finland and Norway, which have experienced financial crises in 1992–93, the actuarial deficits are relatively large compared to other developed

Figure 1. Hidden Deficit (as a percentage of GDP), Averaged over the Sample Period



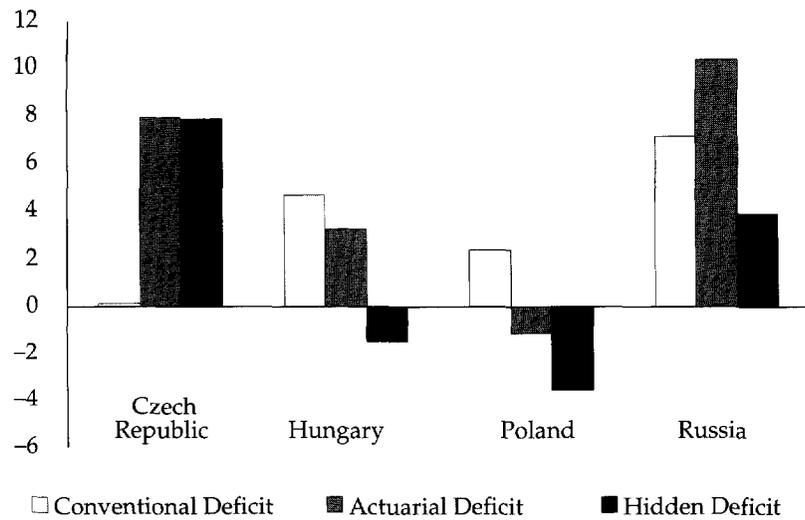
countries that did not experience any financial crises during that time.¹² Second, hidden deficits are negative for some of the developing countries (e.g., Mexico)—i.e., they have hidden surpluses. This could be because of one or more of the following reasons:

- The country has received generous debt forgiveness (e.g., Poland, which is discussed below);
- It has used large amounts of its privatization revenue to retire debt (e.g., Mexico);
- It has obtained a large amount of aids and grants from multilaterals and bilaterals, some of which have been used to finance its budget (e.g., India); or
- Its gains from capital accounts due to favorable change in prices (high inflation and/or large appreciation of the real exchange rate) more than offset the expenses outside the budgetary system.

Countries in Transition

Since the issue of contingent liabilities has emerged as an important policy matter for countries in transition (and our data source is different for these countries and so is the sample period, we cover only the 1992–98 period), we examine these four countries: the Czech Republic, Hungary, Poland, and Russia, separately. Figure 2 below shows the average actuarial, conventional, and hidden deficits for the 1993–98 period for these four countries.

The Czech Republic and Russia, two countries that have recently experienced financial crises, have larger hidden deficits than that of Hungary and Poland, which did not experience any crisis within the sample period. The case of the Czech Republic warrants more explanation. Its debt-output ratio has consistently increased in the past years from 25% in 1994 to 36% in 1998. During the same period the conventional deficits ranged from –0.9% in 1994 to 1% in 1998. It clearly demonstrates that the scope of government’s budgetary accounts do not cover a lot of governmental activities. Spending on quasi-public institutions like the Konsolidacni Banka, Ceska Insasni, Ceska Financni, and National Property Fund have led to an increase in government’s total liabilities, but as these are off-budget institutions the expenses incurred on them did not get reported in the conventional budget deficit. There is however the issue that many of these institutions have accumulated a large amount of assets that can be disposed off later and the proceeds

Figure 2. Transition Countries

can be used to retire the debt. While we recognize that accounting for these assets would markedly change the hidden deficit number we report here, there are two compelling factors to exclude the asset side in our estimation.

The first factor is one of practicality. It is known that public assets are hard to measure and even financial assets such as directed credit are not worth their face value. The general experience with public assets has been that they do not yield commercial rates of return and even the privatization returns are small when averaged over long periods of time. Perhaps for this reason, there is a tradition of not including assets in practical applications such as EMU convergence criteria.¹³ The second reason is related to public policy choice of the government. In many countries, asset accumulation is a secondary implication of policy, not a driver of spending. For example, if a country's objective is to maintain a fixed exchange rate with low inflation, then the country must sterilize foreign capital inflows, building up both foreign exchange reserves and domestic debt at the same time. But the asset is then a by-product of such a policy decision and it is not tied to the liability so that the asset can be extinguished by efforts to defend the exchange rate in a crisis, while the liability remains. In this scenario, the change in gross debt is the price of providing the public policy services of a fixed exchange rate with low inflation.

Box 1. Debt-GDP Ratio and Its Various Components

Here we provide a simple way to compute the contribution of various factors to change in the debt-GDP ratio and the respective data source.

B_t^e : External Debt (Datastream: Debt-GDP ratio).

B_t^d : Domestic Debt (IMF's GFS: Central govt. consolidated Local government).

H_t : Base Money in local currency unit (LCU) (IMF's IFS).

E_t : Exchange rate (IMF's IMS).

D_t : Reported Budget Deficit, in LCU (IMF's GFS: Central govt. consolidated Local government).

X_t : Extra-Budgetary Expenditures, in LCU.

Y_t : Real GDP (World Bank's WDI).

P_t : GDP Deflator (World Bank's WDI).

The government budget can be written as:

$$E_t(B_t^e - B_{t-1}^e) + (B_t^d - B_{t-1}^d) + (H_t - H_{t-1}) = D_t + X_t$$

Dividing by $P_t Y_t$ (i.e., nominal GDP) throughout and after making few manipulations we get,

$$\left(\frac{E_t B_t^e}{P_t Y_t} - \frac{P_{t-1} Y_{t-1}}{P_t Y_t} \frac{E_t}{E_{t-1}} \frac{E_{t-1} B_{t-1}^e}{P_{t-1} Y_{t-1}} \right) + \left(\frac{B_t^d}{P_t Y_t} - \frac{P_{t-1} Y_{t-1}}{P_t Y_t} \frac{B_{t-1}^d}{P_{t-1} Y_{t-1}} \right) + \left(\frac{H_t - H_{t-1}}{P_t Y_t} \right) = \frac{D_t}{P_t Y_t} + \frac{X_t}{P_t Y_t}$$

Using lower-case letter to denote the corresponding upper-case letter as a percentage of GDP, namely, $b_t^e = E_t B_t^e / P_t Y_t$, $b_t^d = B_t^d / P_t Y_t$, $d_t = D_t / P_t Y_t$, $x_t = X_t / P_t Y_t$, $s_t = (H_t - H_{t-1}) / P_t Y_t$ and denoting the growth rate of nominal GDP as g , inflation rate as π and nominal depreciation rate as ϵ and after few more manipulations, one can write the above equation as:

$$(b_t - b_{t-1}) = \left(\frac{-g}{1+g+\pi} \right) b_{t-1} + \left(\frac{\epsilon - \pi}{1+g+\pi} \right) b_{t-1}^e + \left(\frac{-\pi}{1+g+\pi} \right) b_{t-1}^e - s_t + d_t + x_t$$

where b_t denotes the total debt (external plus domestic) as a percentage of GDP. Thus the change in debt-GDP ratio can be decomposed into:

$$\text{Change in debt-GDP ratio} = \text{Contribution of } \left\{ \begin{array}{l} \text{Real output growth} \\ \text{Real Exchange Rate} \\ \text{Domestic Inflation} \\ \text{Actual Budget Deficit} \\ \text{Seignorage Revenue} \\ \text{Extra-budgetary} \\ \text{activites} \end{array} \right.$$

A Decomposition of the Debt-GDP Ratio: Countries in Transition

Having observed that in the transition countries there is a wide divergence between the actual debt stock and the one implied from accumulated deficits, we provide in this section some explanations for this wide divergence. Because of lack of reliable data for Russia, we confine our discussion to only three countries: The Czech Republic, Hungary, and Poland. In box 1 we show that the change in debt-GDP ratio can be decomposed into various components, namely:

$$\text{Change in debt-GDP ratio} = \left\{ \begin{array}{l} \text{Growth rate of output} \\ \text{Capital gains and losses (price effects)} \\ \text{Deficit + Seignorage revenue} \\ \text{Extra-budgetary activities} \end{array} \right.$$

Contribution of

Table 1 shows that the debt-output ratio between 1994–98 period increased in the Czech Republic by an average of 1.26 percent per year, fell in Hungary by 4.56 percent and in Poland 6.86 percent per year. It may seem obvious from this observation that conventional budget deficit in the Czech Republic must be higher than in Hungary and Poland. But as figure 1 shows, the opposite is true. The average conventional budget deficit was smallest for the Czech Republic at close to 0 percent per year. Therefore it is important to look at the composition of change in debt-output ratio to find the source of its change.

Table 1. Average Contribution of Various Factors to Change in Debt/Output Ratio (1994–98)

	<i>Change in D/Y ratio (a)</i>	<i>Growth rate of output (b)</i>	<i>Conv. Deficit + Seignorage (c)</i>	<i>Capital gains and losses (d)</i>	<i>Extra- budgetary (e)</i>	<i>Hidden Deficits (d+e)</i>
Czech Republic	1.26	-0.48	-3.24	-2.24	7.23	4.98
Hungary	-4.56	-1.89	-0.73	-11.99	10.06	-1.94
Poland	-6.86	-3.01	-0.31	-4.59	1.05	-3.54

Note: The sum of the various components, i.e., columns (b)–(e), adds up to column (a). The hidden deficits number reported in table 1 is not identical to numbers shown in figure 2 because of the different time period used and also because data on domestic and foreign currency debt are not available. Instead, we use debt by type of holders and assume that all domestic debt held by domestic residents is issued in domestic currency.

As table 1 shows for all the three countries, the contribution of output growth, conventional deficit and seignorage revenue, gains and losses to capital account due to change in real exchange rate and inflation rate are all negative, i.e., they all contributed toward a decline in debt-output ratio. In Hungary, which has a large proportion of debt in domestic currency,¹⁴ the moderate level of inflation contributed to a significant decline in the real value of its debt and therefore the capital gains from change in real exchange rate and inflation rate amounts to an average of 12 percent per year. In Poland, the largest contributor to a steep decline in debt-output ratio is the effect of high growth and gains and losses to capital account.

Interestingly, the size of extra-budgetary expenses in Hungary, 10 percent per year, is even larger than the corresponding number for the Czech Republic, 7.23 percent. However, in the case of Hungary, the capital gains and losses are large enough to offset the large extra-budgetary expenses—but not in the case of the Czech Republic.

III. Linking Hidden Deficits to Currency Crises

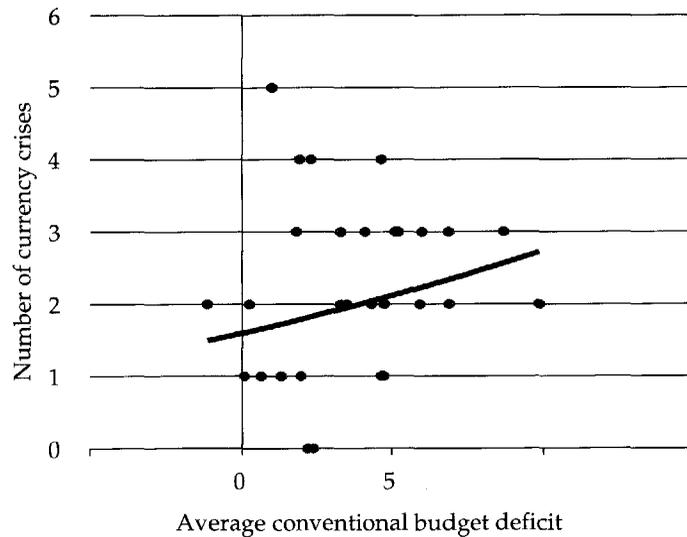
In this section we link the existence of hidden deficits to macroeconomic shocks such as the occurrence of currency crises. This involves information on how many currency crises have occurred in our sample countries between 1980–98. We use the Kaminsky and Reinhart's (1995) methodology to construct a currency crises index, by computing a weighted average of nominal depreciation rate and change in reserves, where weights are chosen such that conditional volatilities of both the components are equal. The year in which the index exceeds a certain threshold is taken as the crisis year.¹⁵

We then construct a scatter plot between the size of average conventional and actuarial deficit and the number of crises for our sample countries, as shown in figures 3a and 3b. Both for a linear fit (not shown) as well as for an exponential fit, the average actuarial deficit fits the number of currency crises better than that of the average conventional deficit. The raw correlation is also higher for actuarial than for conventional deficit. These scatter plots demonstrate that hidden deficits, or the off-budgetary expenses, generally shoot up following currency crises to meet contingent claims made on the public sector by the quasi-public, private, and state enterprises.

Concluding Remarks

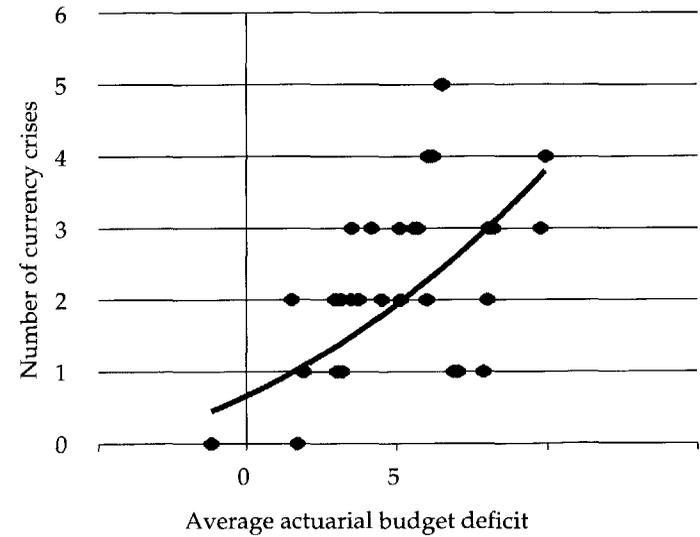
While in developed countries, the accumulation of public surpluses and deficits gives a fairly accurate picture of how public debt evolves

Figure 3a. Number of Currency Crises versus Average Conventional Budget Deficit



Correlation (conventional deficit, number of crises) = 0.15

Figure 3b. Number of Currency Crises versus Average Actuarial Budget Deficit



Correlation (actuarial deficit, number of crises) = 0.55

over time, in developing and transition countries, this has not been true. For the past 20 years, the actual growth of debt has been much greater than the accumulated sum of conventional deficits. Although there are a variety of measurement and methodological reasons for this wide divergence, we argue that a large part of these hidden deficits can be attributed to realized contingent claims following financial crises.

From a policy perspective, the implications of our findings are significant. First, they suggest that the prudent management of debt dynamics in developing countries has to be expanded well beyond the traditional concerns. In fact, the growth of debt has more to do with off-budget transactions that need careful monitoring and management. Second, it is important that the framework to manage contingent liabilities be firmly integrated with the financial crisis literature, and the probability that a particular contingent liability will be realized in the future be made a function of the probability of occurrence of a financial crisis.

Endnotes

¹ For details on the frequency of severity of currency crises in developing versus developed countries, see Gupta, Mishra, and Sahay (2000).

² See Caprio and Klingebiel (1996).

³ For application of this approach to the Czech Republic and FYR Macedonia, see Brixi, Ghanem, and Islam (1999).

⁴ The noise component will be small in the average, as different factors are likely to offset each other, yielding a good approximation of the true size of hidden deficits in the long run.

⁵ For the United States, see Eisner and Pieper (1984).

⁶ Apart from conceptual issues noted below, developing countries also have less standardized accounting practices, which make the cross-country comparability of deficits particularly problematic. Kotlikoff (1989) shows how easy it is for governments to manipulate the deficit figure while maintaining the same fiscal policy. Easterly (1998) presents empirical evidence suggesting that much of the observed change in deficits associated with adjustment programs is indeed a fiscal illusion.

⁷ The latest cost estimate of bank recapitalization, announced by the finance minister, Bambang Subianto, on July 15th is Rp550trn (\$73bn). The ratings agency Standard & Poor's estimates that the cost could run to \$87bn, which at an exchange rate of Rp7,500:\$1 is nearly 19% higher than the official estimate (See EIU Country Reports, 3rd quarter, 1999).

⁸ One of the most commonly used instruments to finance off-budget expenses is the zero coupon bond, in which no interest is paid during the life of the bond and at the time of redemption the principal payment is reported below the line. Thus it never gets budgeted into the deficit.

⁹ The use of exchange rate as the deflator rather than an index of domestic price level was motivated by two factors. First, use of the dollar value (at current prices) facilitated inter-country comparisons. Second, it proved useful to get around the problem of dealing with episodes of hyperinflation in some of our sample countries, where it has been observed that the use of domestic price index introduces significant noise to the data. The exchange rate used to convert base money into dollars is obtained from the International Financial Statistics (i.e., the average value of the period).

¹⁰ In the next section, where the East Asian countries are discussed, we use debt numbers of the "central government" plus the Central Bank and other development agencies of the central government. However, such data pertaining to consolidated central government is not available for the broader set of countries in our sample.

¹¹ The countries included are: Argentina, Australia, Austria, Bahrain, Brazil, Chile, Cyprus, India, Indonesia, Israel, Finland, Jordan, Korea, Malaysia, Mauritius, Mexico, Norway, Pakistan, Philippines, Spain, Sri Lanka, South Africa, Sweden, Thailand, Tunisia, Turkey, Uruguay, United States, and Venezuela.

¹² It is important to note that governments in developed countries are involved in financial bail-outs and other such activities as well, but either they include these expenses within their budgets and/or their capital gains and losses offset some of the extra-budgetary expenditures resulting in their having smaller hidden deficits compared to the developing countries.

¹³ Convergence Report, European Monetary Institute, March 1998.

¹⁴ The data on domestic currency denominated debt is not available. Instead we use domestic debt by type of holders (IMF's Government Finance Statistics)

and assume that all debts held by domestic residents are issued in domestic currency.

¹⁵ Readers are referred to Kaminsky and Reinhart (1995) and Eichengreen, Rose, and Wyplosz (1995) for details on how to construct such an index.

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Opportunities for Government Management of Fiscal Risks in EU Accession Countries

Hana Polackova Brixí

Introduction

In recent years, governments as well as companies and financial institutions have become increasingly aware of the destabilizing consequences of risks for their performance. As seen in the 1997 financial crisis in East Asia, explicit and implicit government guarantees generate moral hazard in the markets and enormous fiscal cost in consequence. Short-term borrowing becomes costly when investor preferences change and interest rates spike. Governments' commodity export revenues collapse when commodity prices drop. These and many other fiscal risks remain hidden until governments realize. In most countries, including EU accession countries, governments still fail to consider the possible impacts of their contingent liabilities and manage their exposure to fiscal risks.

Meanwhile, companies and financial institutions have benefited from new opportunities offered by financial markets to manage and hedge risk. Derivative products have allowed firms to subdivide, isolate, transfer, and swap various financial risks. Firms pursue comprehensive risk management strategies that focus on risks faced across an entire firm and seek to enhance the firm's ability to achieve its business goals. As Froot and others (1994) point out, the role of risk management is to ensure that a company has the cash available to make value-enhancing investments; to enable companies to become better at aligning the demand for funds with the internal supply of funds.

EU accession countries now have similar opportunities to better manage their government risk exposure. Integration of the European markets has made it possible to pool risk across countries, and thus has enabled private firms to provide insurance against risks until recently insurable only by governments. Furthermore, EU accession country governments have been building institutional capacities that will enable them to benefit from the new tools and methodologies to analyze and manage risk that are becoming available.

Several countries, including Australia and South Africa, have addressed risks of expenditure sustainability by making governments

accountable for the medium-term implications of their decisions—and for the adequacy of their macroeconomic and demographic assumptions—through a medium-term expenditure framework. Other countries, including Belgium, Colombia, and New Zealand, have experimented with asset and liability management approaches, to match currency, interest rate and maturity risks in their portfolios of direct liabilities and assets. Regarding off-budget risks, financial markets have welcomed the transparency achieved in countries such as New Zealand, the Czech Republic, and Hungary with respect to contingent liabilities, and Austria, France, Germany, Portugal, and Spain with respect to tax expenditures. Moving beyond transparency, Canada, the Netherlands, and the United States have incorporated analysis of selected contingent liabilities into their budgetary frameworks, requiring budget allocations and reserve funds to reflect the present value of future potential government obligations. These approaches have established a financial constraint on off-budget policy commitments. Several countries around the world have also used derivatives and “exotic” debt instruments to hedge risks in government asset and liability portfolios.

The goal of this paper is to offer guidance to policymakers of EU accession countries to develop a coherent strategy for government risk management. The paper discusses the goals and tools of risk management in the context of government policy priorities and capacities rather than novelties in financial engineering. Accordingly, the paper expands frameworks for fiscal and asset-liability management to address such “hidden risks” as contingent and implicit government liabilities, and tax expenditures, revenue volatility, and asset erosion.

I. The Scope for Government Risk Management

The goal of government risk management is to ensure that a government has the cash available to meet its obligations and deliver its budget programs. Risks facing government include those arising from the structure of its contingent and direct liabilities,¹ assets, and revenues. These risks largely relate to government fiscal policies, their assumptions, and form of implementation. Fiscal risks, however, also relate to implicit variables, such as change in the preferences of foreign investors, disaster occurrence, or drop in commodity prices.

One of the main challenges for government risk management is to be comprehensive enough to tackle all major fiscal risks facing the government. Earlier studies attempting to develop government risk management framework have mainly focused on risks embedded in government debt portfolio (Cassard and Folkerts-Landau 1997) and contingent liabilities (Polackova 1998; and Lewis and Mody 1997). To capture all the

main sources of risks facing a government, two matrixes can be used. The Fiscal Risk Matrix developed by Polackova (1998, table 1) classifies obligations facing government into four groups: explicit direct, implicit direct, explicit contingent, and implicit contingent. The Fiscal Hedge Matrix (table 2) illustrates the different sources of government financial safety—sources of potential revenues to cover government obligations. These sources are direct and contingent, and either explicit or implicit. Direct explicit sources reflect the government's legal power to raise income from its existing assets. Direct implicit sources are also based on existing assets, but these are not under the government's direct control and, thus, may offset fiscal risks to a limited degree only. Contingent explicit sources relate to the government's legal power to raise finances in the future from sources other than own assets. Finally, contingent implicit sources are not available to the government until a major fiscal pressure occurs and even then, the government will have to make a special case for their utilization.

The two matrixes, once filled with country-specific items, allow government to identify the exact scope for its risk management. Specifically, the two matrixes outline the boundary of government asset and liability management (ALM) framework. In this framework, analysis and stress-testing with respect to various types of risks help to identify the government's residual, unhedged risk exposure. The main types of risks include:

- Refinancing risk (short maturities or maturity bunching under restricted access to debt markets) emerging from the direct and guaranteed debt portfolio;
- Liquidity risk (risk of having to sell assets at loss) emerging from maturity mismatch between assets and liabilities and from rigidities in the government's capacity to raise revenues and cut expenditures;
- Currency risk (exchange rate risk and cross-currency risk, exposure to short-term exchange rate volatility) arising from the currency structure of government debt and exchange rate guarantees, which is partly offset by the currency structure of foreign reserves and the current account flows;
- Interest rate risk (floating interest rate) in the direct and guaranteed debt portfolio;
- Commodity price risk (swings in the price of oil, rice, and similar), which affect government contingent liabilities as well as its budgetary revenues and expenditures;

- Derivative risk (risk of large losses from the use of derivative instruments) facing the central bank as well as the government;
- Medium- and long-term sustainability risk, which includes issues of debt sustainability and expenditure sustainability (for instance, pension expenditures in an aging society);
- Political risk (risk of political weakness and of insufficient commitment to fiscal stability) affecting both the value of government liabilities and assets; and
- Operational risk (poor valuation and risk assessment, system errors, poor organizational structures, corruption, and fraud) that may emerge in government debt management, in central bank reserve management, in the pursuit of asset sales and recovery, and in privatization.²

Policymakers can also distinguish short-term fiscal risks (macroeconomic volatility, commitments), medium- and long-term fiscal sustainability issues (debt dynamics, baseline projections and stress testing, demographic trends), and structural weaknesses (the share of non-discretionary spending, revenue structure, fiscal management capacity, and sovereign borrowing market access).

II. Minimizing Fiscal Risk in Policy Design

EU accession countries have new opportunities to reduce their government risk exposure. Many risks, for which only government insurance existed in domestic markets, are becoming insurable by international insurers pooling risks across countries. Domestic market agents have also gained access to new financial and hedging instruments, such as futures³ and options,⁴ to find protection against risk. Governments thus no longer need to provide disaster insurance or crop insurance if international insurers do, and no longer need to conduct minimum price policies if farmers are able to access the futures market. Similarly, governments no longer need to provide credit guarantees to enterprises if they find credit enhancement from international banks. To benefit from the new opportunities, governments need to rethink the rationale of their government programs as well as continue implementing good macroeconomic and institutional frameworks (see box 1).

New opportunities also arise in structuring direct government involvement. Equal policy objectives may be achieved through new forms, which imply lower long-term fiscal cost. For example, new credit enhancement instruments may reduce the cost of government support to an enterprise compared to direct government lending, interest rate sub-

Table 1. Government Fiscal Risk Matrix

<i>Sources of Obligations</i>	<i>Direct obligation in any event</i>	<i>Contingent obligation if a particular event occurs</i>
<i>Explicit</i>		
Government liability as recognized by a law or contract	<ul style="list-style-type: none"> • Sovereign debt (loans contracted and securities issued by central Government)—amounts and structure • Expenditure composition (non-discretionary spending, sensitivities) • Expenditures legally binding in the long term (civil servants' salaries and pensions) 	<ul style="list-style-type: none"> • State guarantees for non-sovereign borrowing and obligations issued by sub-national governments and public and private sector entities (development banks) • Umbrella state guarantees for various types of loans (mortgage loans, student loans, agriculture loans, small business loans) • Trade and exchange rate guarantees issued by the state • State guarantees on private investments • State insurance schemes (deposit insurance, income from private pension funds, crop insurance, flood insurance, war-risk insurance)
<i>Implicit</i> A moral obligation of Government that reflects public and interest-group pressures	<ul style="list-style-type: none"> • Future public pensions (as opposed to civil service pensions), if not required by law • Social security schemes, if not required by law • Future health care financing, if not required by law • Future recurrent costs of public investment projects 	<ul style="list-style-type: none"> • Default of a sub-national government or public/private entity on its non-guaranteed debt / obligations • Banking failure (support beyond state insurance) • Cleanup of liabilities of entities being privatized • Failure of a non-guaranteed pension fund, employment fund, or social security fund (protection of small investors) • Central bank negative net worth or default (foreign exchange contracts, currency defense, balance of payments) • Bail-out requests following a reversal in private capital flows • Environmental recovery, disaster relief, military financing

Source: Polackova (1998).

Table 2. Government Fiscal Hedge Matrix

<i>Sources of financial safety</i>	<i>Direct based on the stock of existing assets</i>	<i>Contingent dependent on future events, such as value generated in the future</i>
<i>Explicit</i> Based on Government legal powers (ownership and the right to raise revenues)	<ul style="list-style-type: none"> • Assets recovery (workout and sales of non-performing loans and sales of equity) • Privatization of state-owned enterprises and other public resources • Recovery of government loan assets (resulting from earlier direct government lending) 	<ul style="list-style-type: none"> • Government revenues from resource extraction and sales • Government customs revenues • Tax revenues <ul style="list-style-type: none"> – minus tax expenditures (exclusions, exemptions and deductions, which reduce taxable income) – minus revenue commitment (to sub-national governments) – minus revenues sold forward (commodity forward sales) and pledged as a collateral (partly at risk) • Savings from expenditures cuts • Hedging instruments and (re-)insurance policies purchased by the government from financial institutions
<i>Implicit</i> Based on Government indirect control	<ul style="list-style-type: none"> • Central bank reserves (maintaining a positive-risk-adjusted net worth) 	<ul style="list-style-type: none"> • Profits of state-owned enterprises • Contingent credit lines and financing commitments from official creditors • Current account surpluses across currencies

sidy, tax exemption, and credit guarantee. For selected forms of support, table 3 provides a comparison of the most likely (expected) fiscal cost and maximum likely fiscal cost (cost at risk). Both approaches emerge from the probability distribution of fiscal cost that may be associated with a particular form of government support. While the expected cost implies what the “average hidden subsidy” (mean cost) is, cost at risk indicates maximum fiscal cost facing government with a given probability (usually 95%). Table 3 indicates that, assuming correct pricing, expected fiscal cost of government guarantee and direct loan equals the price of private credit enhancement. Private credit enhancement and interest rate subsidy, however, greatly reduce maximum fiscal cost.⁵

Table 4 illustrates usual risk coverage and fiscal cost of selected government programs and suggests possible private sector solutions.

EU accession country governments also have increasing opportunities to share risk with the private sector (for example, with the debtors and creditors under government guarantees).⁶ Risk sharing applies to both implicit and explicit contingent liabilities. As Honohan (1999) argues, fiscal cost is lower (and government crisis management more efficient) if a government has an ex ante, confidential contingency plan (for example, outlining which stakeholders—domestic depositors in local currency, domestic depositors in foreign currency, foreign depositors, creditors, and shareholders—will be assisted and by how much). Similarly, ex ante procedures to deal with sub-national government insolvency (for example, requiring an outside control board to implement predetermined spending priorities from available revenues) reduce the exposure of the central government to additional claims.

Learning from the practice of margin calls applied by investment banks (see box 2), a government may be able to reduce moral hazard in the markets and its own risk exposure by requiring beneficiaries of its programs to make collateral payments when their performance deteriorates.

Table 3. Most Likely and Maximum Likely Fiscal Cost

<i>Form of Support</i>	<i>Most Likely Cost (present values)</i>	<i>Maximum Likely Cost (present values)</i>
State Guarantee	Initial expected cost	Principal + commercial interest
Direct Loan	Initial expected cost	Principal + government interest
Interest Rate Subsidy	Total amount of subsidies	Total amount of subsidies
Credit Enhancement	Price charged by the provider	Price of credit derivative
Tax Exemption	Average tax amount (uncollected)	Highest possible tax amount (uncollected)

Table 4. Risks, Maximum Likely Fiscal Cost, and Private Sector Solution

<i>Type</i>	<i>Coverage</i>	<i>Maximum Fiscal Cost</i>	<i>Private Sector Solution</i>
Credit Guarantees	Debt service and losses due to default	Principal plus interest plus possible penalty by the creditor for default	Credit enhancement Share risk with creditors
Guarantee on minimum return from private pension funds	Minimum absolute amount (monetary value) Minimum relative amount (share of average wage)	Guaranteed amount times the number of pensioners Average wage share times the number of pensioners	Sound regulatory framework for pension funds and the overall financial markets, minimal distortions in labor markets and the real economy
Project Guarantees	Design and development Construction risk Operating risk (cost overrun, delays) Demand / revenue risk Financial risk (exchange rate, interest rate) Force majeure Environmental risk Political and policy risk	Very large if not capped	Encourage private investors to obtain insurance in the markets instead of government guarantee Share risk with private investors
Disaster Insurance	Losses due to disasters	Very large if not capped	Encourage direct access to international insurers and reinsurers

(Table continues on the following page.)

Table 4. *(continued)*

<i>Type</i>	<i>Coverage</i>	<i>Maximum Fiscal Cost</i>	<i>Private Sector Solution</i>
Deposit Insurance	Banking failure	Face value of all deposits if not capped	Disclosure of information on bank performance and management, international competition, low limits on the deposit amounts guaranteed
Price Support	Minimum price of a product /commodity	Guaranteed minimum price minus actual price, multiplied by quantity	Encourage direct access to international derivatives markets
Implicit guarantee on various obligations	Explicitly: None Implicitly: Arrears and default on obligations to creditors, investors, employees, managers, owners, and other parties	Very large—obligations minus reserves (financial institutions), financing gap (enterprises), obligation for service delivery (sub-national governments)	Sound frameworks for financial management, reporting, audit, and public disclosure Make announcements and act to minimize bail-out expectations

Box 1. Government Price Support Programs to Farmers

International markets are not always able to offer adequate instruments, such as futures, options, or insurance policies, to protect farmers against the volatility of their particular product. In reality, it may be difficult for a farmer to sell (short hedge) futures on the product to make the final selling price certain and thus protect against losses due to a possible future reduction in its price. The government may thus still be the only source of protection. In many countries, this protection comes in the form of a price support program, which gives the farmers a guarantee of a minimum price for their output. Such programs generate for the government an obligation to pay farmers the difference between the market price and the guaranteed minimum price should the price of their product drop below the minimum price.

Whether this form of government protection is adequate depends on each specific case: Is the objective to prevent farmers from starving in bad years? In such cases, the national social safety net should be able to offer adequate income support to farmers as well as to any other eligible persons. Or is the objective to sustain the production of a commodity that requires continued care and investment for years ahead? Unlike potatoes and cabbage, which can be left in fields in years of unprofitable low prices, coffee and orange trees need continued treatment throughout bad years to remain fertile for good years. Provided such a commodity is strategically important for the country's economy in the long term, price support may be justifiable. But how to discourage farmers from undertaking excessive risks (such as overproducing guaranteed commodities) and thus increasing the fiscal cost of the price support program as well as creating inefficiencies in capital allocation?

If price support turns out to be the preferred choice of government support, how should the program be designed to minimize both moral hazard on the side of the farmers and the future fiscal cost on the government side? Obviously, the amount of product guaranteed must be limited—by a nominal ceiling, per farmer or on total amount, and/or by charging the farmers a fair fee per unit of guaranteed product.¹ In addition, support paid to farmers should just sustain their care of just the right amount of plants. Therefore, the program may be efficiently designed as a put spread, setting not only the minimum price but also the maximum amount of support paid to farmers per unit of product. For instance, if minimum price is set at 100 and maximum amount of government support at 20, government pays support of 15 if actual price is 85 but no more than 20 even if actual price drops well below 80.

Which types of risks, as causes of possible drop in the price of the product should the government cover? Changing tastes that may cut demand for a particular commodity (such as lamb meat recently), causing its drop in price, erode the rationale of the commodity's strategic importance. Thus,

(Box continues on the following page.)

Box 1. *(continued)*

risk of a continuous drop in demand does not belong to the government. Also, risks that the quality of (and thus the price that can be charged for) a domestic product drops compared to the quality and price of international competitors, or that new technology and fertilizers drive prices down permanently, do not belong to the government. These are reasonably well under the farmers' control. On the other hand, farmers can hardly adjust to the risk of temporarily ideal weather that may cause global overproduction. Thus, a price support program would become effective only if the reasons of low price are temporary and clearly and entirely out of the farmers' control.²

¹ For a particular minimum price, the Black Scholes options pricing formula allows to determine the fee. As Cox and Rubinstein (1985) explain, the only required variables for the calculation will be the given minimum price, the actual price, volatility of actual prices over past years, and the time to expiration (number of years ahead for the minimum price guarantee to apply). Alternatively, the government may sell the limited amount of per-unit price guarantees in an auction.

² Even when markets do not offer instruments of adequate protection to individual farmers, they may offer hedging or reinsurance instruments on a larger scale and customized basis to government (for example, customized derivative contracts over the counter, or reinsurance policy).

rates. The collateral "penalty" would be calculated as the increase in the mark-to-market fiscal cost.⁷ This practice would encourage the beneficiaries of government programs to limit their own risk exposure and generate resources for a government contingency reserve fund when government risk exposure increases. But it would demand tight monitoring of performance in the real and financial sectors.

Box 2. Margin Calls to Collateralize Risk

Investment banks periodically monitor their credit risk exposure on clients' portfolios against predetermined uncollateralized limits, and require clients to make collateral "penalty" payments for excess mark-to-market value of potential loss over the limit. The limit is defined *ex ante*, as part of the contractual agreement between the bank and the client, often in terms of both most likely loss and value at risk facing the bank with respect to specific sector, region, or market segment. For a specific portfolio, when assumptions underlying its risk analysis deteriorate, the bank requires the client (a "margin" call) to immediately make a collateral payment equal to the excess of the mark-to-market potential loss over the limit.

III. Reserves or Hedge?

Reserve policies often suffer from underestimation of the reserve requirement and from possible misuse of reserve funds. Arguably, politicians will always find ways to tap reserves even for purposes other than those originally intended. Experience in many countries indicates that neither laws nor rules fully prevent misuse. EU accession countries may be able to find a possible approach to improve reserve adequacy and reduce possible misuse.⁸ In the first option, developed domestic capital markets could implement a proposal by Cohen (1999) to create a reserve fund to cover government contingent liabilities. Cohen suggests limiting government obligations to the size of the reserve fund. The role of the fund would be clearly specified, and there would be a requirement for full transparency of its funds. Shares would be sold to private investors. Market mechanisms would serve to discover the share price of the reserve fund, primarily reflecting on the adequacy of its capitalization and of its use. This way, policymakers would be under market pressure to assess risks and capitalize the fund adequately (see table 5).

The second option, more appropriate for countries with less developed capital markets, would be to entrust a reputable foreign institution to manage the government reserves in a risk-free manner (possibly, with default insurance). A contract would specify permissible claims on reserves and make other claims subject to a penalty and ex ante public disclosure. As government reserves have high opportunity cost,⁹ EU accession countries may prefer to securitize their risk exposure or purchase reinsurance instead.¹⁰ Take a government that largely depends on taxing revenues from wheat sales. When wheat price drops, the government is short of revenues. If its access to debt markets is limited, it has to cut public expenditures abruptly. Assuming the dependence on wheat revenues as given, the government can look for possibilities to stabilize its fiscal performance by structuring its obligations so as to reflect wheat prices, instead of building a revenue stabilization fund. For example, the government may try to link its liabilities to the source of volatility, that is, to issue bonds, which offer yield inversely linked to wheat price (or to factors, directly affecting wheat price, such as rainfalls during particular months of the year). In times of low revenues, the government will thus face lower debt service cost. Private insurance companies have utilized this approach in issuing catastrophe bonds,¹¹ which offer lower yields when a hurricane occurs and higher yields when it does not.

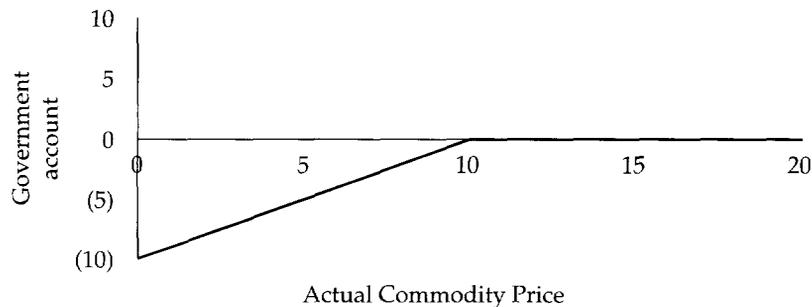
The government may also purchase customized derivatives that will deliver positive payoff, inversely related to wheat price (or its underlying factors). In this scenario, an options pricing model provides guidance on how costly such derivatives would be. Applying the Black-Scholes for-

mula, the derivative price reflects an exercise price (threshold price below which the payoff to the government is positive), actual price of wheat at the time of closing the contract, present interest rate, time to expiration, and past volatility of wheat prices (which is the only variable that needs to be estimated).¹² Ideally, government will pass the cost of hedging (the price of derivative contracts) to the wheat farmers and other beneficiaries (see box 3).

Alternatively, the government may purchase reinsurance. The reinsurance policy may be structured so that the government receives an insurance benefit that is inversely related to wheat price when wheat price drops below a specific threshold. For the reinsurance company, providing such a policy is like writing (selling) a put option (giving the government right to "sell" wheat at a specific exercise price that is determined by the level of the actual price). Therefore, the Black-Scholes formula can again be used to determine the cost of the reinsurance policy (see box 4).

Box 3. Securitizing Government Risk

How to hedge the risk of price support policies? Suppose the government offers a minimum price guarantee on a commodity. Assuming the floor price is set at \$10/unit, government pays the difference between the floor and actual price if the actual price falls below \$10/unit (see graph below).



This payoff exactly illustrates that providing price support policy equals shorting a put option (selling the right to sell commodity at a specified minimum price). To hedge against possible losses, the replicating strategy suggests buying puts from international financial intermediaries. The cost to the government is the difference between the total fees collected by the government from the commodity producers (if possible in an auction) and the price paid by the government for the put. The strategy allows the government to convert its fiscal cost from the form of an unknown contingent liability to a fixed, up-front payment.

Table 5. Reducing Government Risk Exposure

<i>Source of Risk</i>	<i>Reduce Risk in Design</i>	<i>Possible Steps to Reduce Exposure for Risks Taken</i>
Guarantees	Cover only selected risks, such as political/policy risks	Consider risk exposures in ALM framework Establish reserve fund for all guarantees Limit total benefits paid to the amount available in the reserve fund Insure reserve adequacy by transforming the reserve fund into a public company with shares freely traded ¹
Disaster insurance	Cap maximum benefit Insure middle rather than first portion of loss	Consider issuing catastrophe bonds (possibly for a basket of likely disasters) Consider purchasing reinsurance for risks in excess of a threshold that is deemed fiscally bearable
Price support	Auctioning policies Cover only selected risks, such as political/policy risks	Consider derivatives to replicate the pay-off
Commodity tax	Demand base payment independent of commodity price	Consider reinsurance Consider commodity-linked bonds Consider commodity-linked derivatives
Repayment of direct lending	Require collateral	Consider insurance Consider default insurance

1. Interest of the fund shareholders' would contribute to ensuring reserve adequacy, that is, to charging guarantee beneficiaries, such as banks, adequate premiums. This arrangement loosely imitates arrangement suggested by Cohen (1999) and discussed above.

As the border between hedging and speculation is sometimes difficult to draw, clear risk management objectives and strategy across the entire risk portfolio are required. Recent experiences of companies and hedge funds have reconfirmed that the derivatives that provide less than a perfect hedge may generate risks on their own. The portfolio approach allows us to unbundle risks, their correlations, and sensitivities. Risk

management strategy helps decide which risk components to hedge. Therefore, before a government starts exploring the use of derivatives and managing its risks actively, two steps are necessary. First, top policymakers—rather than the Treasurer or debt managers—need to specify the primary objectives for government risk management. Objectives of government risk management will depend on the following questions: To what extent can the government rely on ad hoc borrowing and tax increases? To what extent should the government require the matching of its expected fiscal pressures with its expected fiscal revenues? This, in turn, will depend on the extent to which government can afford to restructure or default on its budget programs (are arrears permissible?) and on its obligations (of both contingent and direct nature). Second, reflecting the limits of government risk-management capacity, policymakers need to decide to what extent to allow the use of off-budget programs (which increase the volatility of future fiscal pressures) and of hedging instruments, such as derivatives. Hedging, like public finance management, requires sound institutions and good control mechanisms.

IV. Capturing Risks in the Fiscal Framework

As a budget is sometimes a poor reflection of overall fiscal activity, a broader framework¹³ is needed to capture fiscal risks and to promote a risk-awareness culture in government. To ensure proper attention to their possible implications, fiscal risks need to be made explicit. Statements of contingent liabilities, tax expenditures, and other fiscal risks are regularly offered in Australia, Canada, the Netherlands, New Zealand, and the United States. Such statements list the various sources of fiscal risk, discuss their nature and sensitivities, implications on future fiscal position and equity, and where applicable provide their face and/or estimated value. Governments also need to require information disclosure in the markets, not least because of implicit contingent liabilities. Sources of fiscal risk may include guarantees issued by sub-national governments and public entities, environmental commitments of enterprises, and off-balance-sheet items of financial institutions.

Medium-term fiscal planning is truly viable only if it set in the ALM context (in the context of fiscal risk and hedge matrixes shown in tables 1 and 2). To show medium-term implications of fiscal risks for the overall fiscal position, baseline fiscal projections can be stress-tested with respect to specific risks across all major items in the fiscal risk and hedge matrixes (taking into account possible correlations). Stress-testing detects key medium-term fiscal vulnerabilities of government. The results of stress-testing will be critical for government risk management. It would be necessary to re-estimate periodically the sensitivities of its risk exposure with respect to changes in the underlying assumptions (that is, to mark-to-

market the expected fiscal cost), and to decide on a hedging strategy accordingly. With respect to implicit risks, whether or not the government decides to disclose its exposure, medium-term fiscal strategy will be at risk if it is not accompanied by confidential contingency plans on how to proceed if the risks are realized. Not only macroeconomic, but also equity and efficiency considerations, are better made in the broader context of the fiscal risk and hedge matrixes. To draw more attention to risk analysis and build risk awareness among policymakers and in the public, the process of risk analysis is even more important than the numerical risk estimate. With respect to the quality and assumptions of risk analysis, supreme audit institutions should ensure accountability.

Budgeting and provisioning for fiscal risk creates a buffer for the event that risks realize, as well as making policymakers cash-neutral.¹⁴ Particularly governments with a limited access to debt markets and hedging instruments benefit from early provisioning for risk and contingency reserves. Cash neutrality with respect to alternative forms of government support is important from the viewpoint of deficit measurement and of sectoral budgetary envelopes. Allen Schick (2000) has summarized the contemporary approaches to budgeting and outlined further possible improvements so as to develop a system for budgeting and provisioning that meets the above objectives. Such a system reflects the following principles:¹⁵

- Apply joint ceiling for the cost of budgetary and off-budget support for each sector in a fiscal year. Off-budget support is a form of subsidy, which should be considered along other forms of government support for each sector.
- Calculate the size of a hidden subsidy as the present value of its future expected fiscal cost.¹⁶
- Reflect the cost of off-budget support in full in the year when it is issued.
- Transfer an amount equal to the off-budget support from the budgetary envelope of the related sector to a central contingency reserve fund.

These principles pull the expected fiscal cost of off-budget support into deficit accounting. The amount transferred to the reserve fund is accounted for like an expense. On the other hand, when contingent claims are paid out of the reserve fund, the fiscal deficit remains unaffected. Similarly, tax expenditures increase the deficit in the year it is provided. The implementation of the Federal Credit Reform Act in the United States has confirmed that this approach is plausible even when accounting and budgeting systems are not on an accrual basis.

Box 4. Private Sector Logic on Provisioning

The private sector offers examples of the need to provision fully for the expected cost of contingent support immediately in the year the program is issued. Programs of contingent support can be often shown as a put option written (given) by the government. In the private sector, financial institutions charge full option price when writing (selling) an option. The price of an option reflects the present value of the future possible loss, which may be incurred by the underwriting institution. As illustrated by the Black-Scholes formula, the price increases with the time to expiry (e.g., maturity of the guaranteed loan) and with the volatility of the underlying asset (e.g., share price of the enterprise, the debt of which is under the guarantee). Financial institutions charge the full option price immediately at the time of selling the option. The amount is then used either to build reserves or to buy a hedge. See Hull (1997).

Designing Risk Management Functions

For risk management as well as for traditional public finance management, control structures and accountability are crucial. Important features to improve transparency and reduce scope for fraud and corruption include centralization of risk-taking authority and division of risk management responsibilities. In many countries, fiscal risk-taking authority is centralized at the ministry of finance, while risk monitoring is conducted internally by a public liability management office and externally by a supreme audit institution. The budget department and public liability management office are usually responsible for the analysis of risks of newly proposed programs. In this context, a more autonomous position of public liability management office reduces the scope for risk underestimation and fiscal opportunism. To conduct fiscal risk analysis in a comprehensive manner, the public liability management office should also have an easy access to information from the central bank (e.g., on risks emerging from foreign and short-term credit) and other separate agencies (e.g., on risks emerging from the financial sector and state-owned entities).

Conclusion

To benefit from their new fiscal risk management opportunities, governments of EU accession countries need to build awareness and understanding of fiscal risks, and accountability for dealing with fiscal risks. In order to enhance fiscal performance, policymakers may want to ask a number of new questions specific to fiscal risks. This paper has sought to provide general guidance on the following questions:

- What are the sources of government fiscal risks and financial safety?
- What are the limits of government responsibilities for implicit liabilities?
- How sensitive are future financing requirements to critical risk factors?
- Is there any private solution to government programs? If not, how do we design a government program to minimize its expected and maximum likely (stress-scenario) fiscal cost?
- How can government obligations, assets, and revenues be restructured to reduce government risk exposure?
- How can we ensure accountability in government risk analysis, reserve adequacy, risk management, and execution of risks that have realized?
- How can we design guidelines for fiscal risk management (e.g., for using derivatives)?
- To what extent should a government hedge, purchase reinsurance, and build contingency reserves? How to regulate reserve management?

Further research is needed to respond to these and related questions in greater detail.¹⁷

Endnotes

¹ Contingent liabilities arise as obligations assumed by government in the pursuit of policy objectives in the form of promises of contingent support rather than budgeted expenditures. Examples include state guarantees on enterprise borrowing, state insurance programs, and government commitments to ensure cost recovery to private investors.

² For a more detailed discussion of risks and risk management possibilities of different countries see for example, Claessens (1993), and Larson, Varangis, and Yabuki (1998).

³ Future contracts are arrangements between two parties to buy or sell an asset at a predetermined future time and price. These contracts are normally traded on an exchange. A similar arrangement, a *forward contract*, can be made with a financial intermediary over-the-counter, without involving an exchange. For background on derivatives see Hull (1997).

⁴ Option contracts give the holder the right but not the obligation to buy (call option) or to sell (put option) an asset at a predetermined future time and price. This predetermined price is known as the *strike price* and the predetermined date is known as the *expiration or maturity date*. At the time of purchase, the buyer of an option contract pays an *option price* to the option writer. *Option pricing analysis*, most often employing the Black-Scholes formula serves to set the option price. For background on options see Cox and Rubinstein (1985).

⁵ For a detailed analysis of various tax expenditures and their implications see “Congressional Research and Studies Center,” Congressional Research Service (1998).

⁶ Developing a good risk-sharing mechanism requires good understanding of the underlying risks and very clear policy objectives. In this regard, important questions are listed in the summary toolkit below.

⁷ Marking to market means adjusting risk analysis to changes in the original assumptions. Government may need to reassess assumptions that underlie its risk analysis several times a year and adjust its risk management approaches accordingly. Deteriorating fundamentals imply an increase in government subsidy. Consistency with government overall policy objectives and spending envelopes for sectors would require affected sectors to reduce other support programs and contribute more to the contingency reserve fund. Alternatively, the required increase in the reserve fund would raise fiscal deficit.

⁸ *Hedging* refers to the strategy of protecting oneself against losses arising from changes in market conditions (Hull 1997). *Replication* attempts to eliminate a risk by developing a strategy that would “perfectly” offset gain/losses arising from changes in market conditions. This strategy includes *dynamic hedging strategies* (discussed in this section), or entering into a *perfectly offsetting transaction*.

⁹ In EU accession countries, opportunity cost mainly relates to the reforms, which require public resource to implement. The opportunity cost of not protecting against risk, however, may be much higher. Like other emerging-market economies, EU accession countries may face temporarily unfavorable terms for government borrowing when contingent liabilities realize or revenues drop.

¹⁰ Risk pooling may be also an option. Risks of some government programs may happen to be negatively correlated. Even imperfect correlation of risk factors (e.g., hurricane, drought, and fire) would reduce volatility in the total fiscal cost. Government, however, can hardly launch new programs purely with the objective of reducing its risk exposure.

¹¹ Catastrophe bonds are obligations whose interest and principal payments are linked to a catastrophe event. For example, they could call for reduction in

interest and/or principal, or for extension of maturity if losses related to the underlying event exceed the trigger level. This arrangement is called reinsurance protection. See Insurance Services Office, Inc. (1999).

¹² Extensive literature covers issues of hedging risks of government direct debt portfolio, commodity price risk (for example, minimum price support programs), and crop insurance. Ireland, Sweden, and Hungary, to name a few, have utilized interest rate swaps, currency swaps, currency forwards, and other derivatives to achieve a desired risk profile in their debt portfolio. Belgium and Colombia, among others, have explored asset liability management possibilities to line risk exposure of their direct liabilities to the profile of their assets and potential revenues. For an overview see, for example, Nars (1997).

¹³ Medium-term expenditure framework, as applied in countries such as Australia, New Zealand, and South Africa, tackles the problem of fiscal opportunism across budgetary programs, by requiring policymakers to analyze and disclose the assumptions and expected medium-term (3–5 years) implications of their budget proposal, and to be accountable for any departures from their medium-term targeted levels in year-by-year decisionmaking.

¹⁴ For a discussion on how to value and budget for contingent liabilities see, for example, Mody (1996).

¹⁵ For specific suggestions in a country-context see Brix, Ghanem, and Islam (1999), and Mody (1999).

¹⁶ There may be a discount applied on a newly proposed policy (say draught insurance) if its risks are negatively correlated with the risks of other policies (say, minimum agricultural price guarantee and flood insurance). This is because in such a case the newly proposed policy would increase government overall risk exposure by less than its full expected cost.

¹⁷ Responses have been developed in selected areas of fiscal risks. For example World Bank (1999) discusses how to manage fiscal risks in water and sanitation programs.

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Central Bank Use of Derivatives and Other Contingent Liabilities: Analytical Issues and Policy Implications

Mario I. Blejer and Liliana Schumacher

Introduction

While central banks have frequently undertaken contingent commitments as part of their regular operation in the economy, it is only recently—through central bank involvement in the derivatives markets—that these transactions have drawn the attention of policymakers, market participants, and international agencies. This renewed interest and the fact that these contingent operations came to light in the aftermath of the Asian financial crisis, increased the interest in the analysis and the measurement of these commitments. In EU accession countries, central banks have only recently gained access to derivatives markets; therefore, awareness of the risks involved is important in order to avoid excessive risk exposure.

The goal of this paper is twofold. First, to explore the rationale for central banks to undertake this type of commitment—in particular to intervene in derivative markets—and to assess the arguments that are commonly made in favor and against this sort of involvement. Second, to suggest a methodology to analyze the whole spectrum of central bank contingent liabilities. Specifically, we aggregate all on- and off-balance sheet transactions in a single framework so as to be able to draw meaningful conclusions on the consequences of these central bank operations on a number of important policy issues. These include the volume of central bank's available reserves, the potential burden arising from instability in the banking sector and the overall solvency of the central bank.

I. Central Bank Contingent Liabilities: Classification

Contingent liabilities are financial commitments that are triggered by the occurrence of an event whose realization is uncertain. This could include a change in the valuation and prices of financial assets, a bank failure, or

a natural disaster. The general definition of central bank contingent liabilities coincides with the standard concept used to classify government contingent liabilities in the context of the fiscal accounts (see paper by Brixi in this conference document). However, there are a number of distinctive central bank commitments that require a specific conceptual treatment. Moreover, the concrete quantitative valuation of certain types of central bank obligations requires a special analytical approach.

A point that is important to stress at the outset is the analytical distinction between the lack of proper economic accounting of some assets and liabilities that would result in off-balance-sheet items (such as implicit credit subsidies), and the conceptual and practical consequences of contingent assets and liabilities. Typically, contingent central bank liabilities can be divided into implicit and explicit categories, depending on whether or not they arise from a legal and/or contractual source. Explicit central bank contingent liabilities arise from formal statements in regulations, or from contracts entered by the central bank with specific counter parties, and can be divided into three types:

- Liabilities that arise from formal central bank commitments to support the soundness of the banking sector. This includes the provision of liquidity to individual institutions (the central bank's role of lender of last resort), as well as the provision of specific deposit and other guarantees.
- Liabilities created by central bank operations in non-spot foreign-exchange and other financial markets. Specifically, when central bank intervention takes place in derivative markets, these operations give rise to potential gains and losses that are contingent both on the state of the world and on other central bank actions. These types of operations could be a very important source of contingent liabilities, since they include not only straight intervention in the markets for forward, futures, options, and currency and interest rate swaps, but also monetary operations involving foreign-exchange swaps and repurchase agreements (repos). It should be mentioned, however, that the focus of contingent liability analysis is on the use of derivatives as policy tools, i.e., operations designed to influence variables such as the exchange rate or the interest rate. In particular, currency forwards and options and foreign exchange swaps can be used as instruments in the foreign exchange market to affect the exchange rate, while repurchased agreements can be used in the money market to influence the interest rate. This should be stressed, in order to distinguish these operations from the use of derivatives undertaken as part of the routine central bank management of its own foreign exchange reserves.

- Other potential guarantees to private sector activities, such as guaranteed repayment of directed credit to selected sectors, export and investment guarantees, etc.

Among the implicit central bank contingent liabilities, the most salient is the commitment of central banks to assure the systemic solvency of the banking (and financial) sector, over and above the explicit commitment to provide liquidity to individual institutions and to guarantee certain types of deposits and/or other private sector bank assets. These would include the provision of financial coverage over and above the legal guarantee scheme and the bail-out and re-capitalization of banks and non-bank financial institutions.

It could be argued that certain macroeconomic central bank commitments such as the preservation of a stable exchange rate regime or, more generally, the attainment and maintenance of price stability should also be considered, in themselves, implicit contingent liabilities and, consequently should also be subject to quantification. While in principle this would seem consistent with the general framework here suggested, we submit that they should not be part of the same analytical framework. This is so because the financial consequences of the event (i.e., deviations from implicit central bank policy targets) are hard, if at all possible, to quantify as it can give rise to numerous types of responses. We postulate, therefore, that it is only when specific policy actions can be taken to protect the implicit commitment and they are embedded in legal norms (such as stock of repo transactions or forward exchange market operations) that they should be considered part of the framework suggested here.

II. The Rationale for Central Bank Operations Involving Contingent Liabilities

The rationale for the involvement of central bank in activities that result in contingent liabilities varies according to the type of operation concerned. Much has been written about the reasons that motivate central banks to assume specific commitments in order to strengthen the soundness of the financial markets, e.g., about the role of the central bank as a lender of last resort, or the rationale for deposit insurance. The main arguments in favor of these institutional devices include the illiquid nature of banks coupled with the potential for systemic risk (Diamond and Dybvig 1983), and the existence of asymmetries of information and the protection of the small depositor (Tirole and Dewatripont 1994). Similarly, the issuing of guarantees for private sector activities have also been subject of abundant research. In general, the view is that such activity is of a quasi-fiscal nature, and therefore its rationale is of a fiscal

nature too. In particular, central banks may be induced to undertake these type of operations to hide undesirable budget outcomes from public scrutiny.

What has been much less well researched is the rationale for central bank intervention in derivative markets. Therefore, we develop in more detail the main arguments that could be used to justify the implementation of these operations. In general terms, it is possible to assert that central banks tend to engage in derivative operations for the following reasons:

- To provide additionality to incomplete or illiquid markets;
- To defend a fixed exchange rate regime or an exchange rate band;
- To alleviate the conflict between the defense of an exchange rate regime and the stability of the financial system;
- As an automatic stabilizer of the foreign exchange market; and
- As an alternative instrument for monetary management under some specific circumstances.

Providing Additionality to Incomplete or Illiquid Markets

In many countries, the derivative market is not deep enough and, therefore, does not provide the range of necessary instruments for appropriate hedging and risk management. In these circumstances, the rate of growth of the underlying market would tend to be lower than desired, and central bank provision of additional innovative instruments and liquidity could be seen as a means of developing both the spot and the derivative markets and of eliminating—or at least smoothing—volatility in the spot market.

Defending a Fixed Exchange Rate Regime or an Exchange Rate Band

Central banks' engagement in derivative operations, including forwards and swap operations, have also been repeatedly used to reduce exchange rate fluctuations and, more specifically, to protect a fixed exchange rate regime or an exchange rate band. Central banks have two important reasons to prefer this form of intervention over intervention in the spot market. First, derivatives allow the defense of the exchange rate without an immediate use of foreign exchange reserves and without an impact on the money supply. It is, therefore, similar to sterilized intervention, but it has, *ex ante*, an opposite (positive) fiscal outcome.

Second, intervention in the derivatives market is an efficient way of releasing some of the pressure that dealers and banks may exercise on the foreign exchange spot market at times of particularly heavy speculative stress. During normal times, banks and dealers can easily find counterparts for hedging their foreign exchange operations. But at times of uniform expectations—when there is a widespread market belief that the exchange rate would likely change in one particular direction—they may find it difficult to hedge in the derivative market. Clearly, when the generalized expectation is that the domestic currency is bound to depreciate (or will be devalued), market participants will seek to shorten the domestic currency, buying put options or taking short forwards positions. However, banks and other foreign exchange dealers will take the long side of the market only if they can hedge their exposure. But hedging in these circumstances could face some impediments. In the absence of agents that need to hold a natural long position in the domestic currency, banks and dealers may only be able to hedge synthetically. In a synthetic hedge, dealers aim at replicating, with an opposite sign, the cash flows that emerge from the derivatives transactions in which they have committed. There are two cash flows to hedge:

- A long position in the weak currency equal to the total amount of their forward commitments plus their put options commitments, times the probability that the put options will be exercised (the hedge ratio); and
- A short position in the strong currency for an amount equal to the long position times the forward rate.

As can be easily seen, these two cash flows, with an opposite sign, can be easily replicated in the spot market by, for example, taking a loan in the weak currency and opening a deposit in the strong currency. While hedging synthetically could be, from the point of view of risk management, satisfactory for the dealers, it may create a problematic situation from the central bank's perspective that provides the motivations for stepping into the derivatives markets. Several of the major concerns that central banks have with synthetic hedging are of a particular interest. The first one relates to the impact of synthetic hedging on the foreign exchange spot market. Second, synthetic hedging can distort the response of agents to increases in the domestic interest rates.

Impact of Synthetic Hedging on the Spot Market

Clearly, during times of turbulence in the foreign exchange market, it is reasonable to expect that a central bank that is committed to defending a

peg would try to avoid additional selling pressures on the domestic currency. However, a dealer hedging synthetically will tend to do precisely that, by short-selling the domestic currency and using the proceeds to buy foreign currency. This would indeed put additional pressure on the spot market that can only be released by increasing the liquidity of the derivative market. The central bank willingness to sell forward contracts or to write put options is therefore intended to provide dealers with appropriate hedges, removing in this manner the additional pressure that synthetic hedging exerts on the spot market. In other words, central banks may intervene in the derivative markets to prevent speculation to spill over immediately to the cash/spot markets.¹

Synthetic Hedging and Interest Rates

Central banks are also interested in containing synthetic hedging, since it is well recognized that these types of operations tend to disrupt the typical central bank defense of a pegged foreign exchange system. Garber (1995) shows that an increase in the domestic interest rate results in an increase in the hedge ratio (i.e., in the inverse of the ratio between the number of puts and the units of foreign currency necessary to hedge those puts)² under most circumstances. This means that an increase in interest rates raises the demand for foreign exchange in the spot market on the part of the synthetically hedged agents. Therefore, whether a higher domestic interest rate will succeed or not in reducing speculation—by inducing market participants to continue holding the domestic currency—depends on the relative importance of market agents that are synthetically hedging versus the rest of the market participants that are caught in the interest rate squeeze.

Alleviating the Conflict between the Defense of an Exchange Rate Regime and the Stability of the Financial System

The conflict may arise when expectations of a devaluation increase, provoking a surge in capital outflows. Given the importance of banks in the intermediation of capital flows, the intensifying pressures in the foreign exchange market could result in serious liquidity problems for the banking system. These problems might be further complicated as the increase in the expected rate of devaluation will lead to higher domestic interest rates. The central bank—in its role as a lender of last resort—would tend to provide liquidity loans to banks that have experienced losses owing to the higher interest rates³ in the inter-bank market and/or to the fire-selling of bank assets when the inter-bank market dries. However, a lending of last resort cannot discriminate among banks with a legitimate liquidi-

ty problem of this sort and other banks that may attempt to borrow from the central bank in order to hedge or to speculate in the foreign exchange market. Therefore, the provision of liquidity by the central bank may end up feeding the short-selling of domestic currency, increasing in this way the pressure on the foreign exchange market. In other words, central banks may prefer to step into illiquid derivatives markets in order to provide banks and dealers an alternative way to speculate, through forwards or options, without exerting further pressures on the foreign exchange spot market.

An Automatic Stabilizer of the Foreign Exchange Market

An at-the-money (American or European) put option, written by the central bank on the reserve currency, provides an automatic stabilizer for the foreign exchange market.⁴ When there is an inflow of foreign currency and the exchange rate appreciates, the put buyers exercise the option and deliver the reserve foreign currency to the central bank. This mechanism also allows the central bank to accumulate reserves precisely when the foreign currency weakens and avoids the negative signaling effect of open central bank intervention in the spot market. The foreign currency reserves accumulated during such episodes of appreciation can be used to reduce outstanding foreign currency liabilities or, when there are pressures on the exchange rate to depreciate, to provide the additional supply required by the market.

An Alternative Instrument for Monetary Management under Some Specific Circumstances

Some arguments have also been voiced justifying the use of foreign-exchange swaps as an instrument for domestic liquidity management. In particular, in countries running fiscal surpluses or where the outstanding stock of public—including central bank—debt is low, central banks may find it expensive (or disruptive) to inject domestic liquidity using repos based on domestic bonds. For that reason, some countries have resorted to the use of foreign exchange swaps, which are basically repos in foreign exchange currency, as a temporary mechanism to manage domestic liquidity.⁵ These operations do not change the level of net international reserves but increase temporarily domestic liquidity.

There is, therefore, a positive policy rationale for central banks to accumulate contingent liabilities through derivative market intervention. However, these operations carry significant risks. Proliferation of contingent liabilities distort the financial statements of central banks, and the solvency of the central bank can also be compromised by potential loss-

es. Moreover, interventions in the derivative market may have serious drawbacks. They could be difficult to support when these markets are very thin and they are bound to result in a loss of the informational content that is provided by these markets. In addition, the ability to intervene in the derivative markets at a low cost, and the lack of a material constraint to the intervention levels, could lead to potential postponement of important policy decisions.

III. Valuation

One of the main problems posed by contingent liabilities is the issue of how to record them and, in particular how to aggregate these contingent liabilities (that are by definition off-balance) with the on-balance central bank transactions for valuation purposes. We propose here to use a portfolio approach to all central bank transactions, as the only way in which both on- and off-balance transactions can be aggregated and can provide some meaningful information on variables such as the central bank's available reserves, the potential burden caused by preserving banking sector stability, and the overall solvency of the central bank. The theory of financial instruments provides the necessary tools for pricing these transactions and therefore the procedures are not reviewed in detail here.⁶ However, for illustration, and since there are some operations that are particularly relevant for central banks, we discuss here two specific cases: the value of a currency forward contract and the value of a deposit insurance commitment.

The Value of a Currency Forward Contract

The economic value of a currency forward can be derived from covered interest rate parity:

$$e^{-rf_o} F_{o,T} = S_o e^{-rd_o} \quad (1)$$

where:

$F_{o,T}$ is the forward rate for the foreign currency, for maturity T, as of the day the contract is signed.

S_o is the spot rate for the foreign currency as of the day of the contract.

rd_o is the domestic interest rate as of the day of the contract.

rf_o is the foreign interest rate as of the day of the contract.

The meaning of (1) is that—according to the covered interest rate parity—a forward contract can be viewed as two zero coupon bonds. The left-hand sign of the equality represents a zero coupon bond denominated

ed in domestic currency, with face value equal to the forward rate of the foreign currency for maturity T , as of the day of the contract, and with maturity T . The value of this zero is found by discounting the forward rate by the domestic interest rate. The right-hand side of the equality represents a zero coupon bond denominated in foreign currency, with face value equal to one unit of the foreign currency (converted into domestic currency using the spot price of the day of the contract). The value of this zero is found by discounting the unit of the foreign currency by the foreign interest rate.

We can now rearrange (1) in order to find the value of the forward contract any day after the contract was signed, as the difference between the value of the two zeros, i.e.,

$$e^{-r_d t} F_{0,T} - e^{-r_f t} S_t \neq 0 . \quad (2)$$

Equation (1) showed that the value of a forward, as of the day of the contract, is zero. But for any other day after the original date, the value of the forward contract in the book of the central bank is different from zero and can be determined by calculating equation (2) with information that is generally readily available.

Deposit Insurance

Following Merton (1977), a deposit insurance can be seen as the equivalent of a put option held by the banks, and written by the central bank on each unit of bank assets, with the strike price equal to the value of bank insured debts. The equivalence goes as follows: if banks become insolvent, the value of bank assets by definition is lower than the value of bank debts. Given limited liability for the shareholders, bank debts will suffer the full loss. But in the presence of deposit insurance, banks have the ability to "exercise the put option," i.e., they "sell" their assets (the underlying asset of the put) to the central bank and they get in exchange an amount equal to the face value of the insured liabilities (the strike price), which is used to pay for bank-insured debts.

Following this equivalence the value of a deposit insurance is as follows:

$$G(T) = T B e^{-rt} \phi(X_2) - V \phi(x_1) \quad (3)$$

where

$$X_1 = \left\{ \log (B/V) - \left(r + \frac{\delta^2}{2} \right) T \right\} / \delta \sqrt{T}$$

$$X_2 = X_1 + \delta \sqrt{T}$$

B = face value of bank liabilities (exercise price)

V = value of the banks' assets

δ = volatility of the banks' assets

T = maturity of bank liabilities

$\Phi(\cdot)$ = is the cumulative probability distribution function for a standardized normal variable, i.e., it is the probability that such a variable will be less than Φ .

As Merton (1977) indicates, (3) can also be applied to value a government guarantee of loans made to private (financial or non-financial) corporations.

Concluding Remarks

Central banks perform a large variety of operations that give rise to contingent liabilities, defined as financial commitments that are triggered by the occurrence of an event whose realization is uncertain. Since these operations cover a wide array of areas, the motivation for central banks to engage in this type of activity also arise from a myriad of reasons. We provide here a taxonomy to classify these operations and elaborate on their analytical aspects, as well as on the operational motivations that induce central banks to utilize these instruments.

We conclude that whereas some of the central bank contingent liabilities arise from anomalous circumstances,⁷ there are a number of positive reasons that explain their apparent popularity. While some of these positive implications are well recognized—particularly those that arise from the central bank role in guaranteeing the stability of the banking sector—the constructive aspects of central banks' involvement in derivative markets are less well understood. We attempt here to provide a broader and more positive perspective. However, we also need to stress that, since most of the operations that give rise to contingent liabilities also tend to be off-balance sheet, they reduce the transparency of central bank accounts. This in turn may result in serious problems regarding the proper assessment of the financial position of the monetary authority and, by implication, of the overall macroeconomic conditions of the country. We suggest, therefore, that a comprehensive portfolio approach, that values, in an economic rather than purely accounting sense, all off-

and on-balance sheet assets and liabilities of the central bank should be adopted. While proper valuation and aggregation of central bank financial positions would solve some of the transparency problems posed by contingent liabilities, it should be pointed out that their presence in the central bank portfolio would also tend to increase financial risks. In addition to reducing, *ceteris paribus*, the net equity of the central bank, as shown in our illustrative simulations, it is sensible to assume that formal risk indicators would tend to rise in tandem with the volume of this type of liability. For EU accession as well as other developed and emerging market countries, it would indeed be a useful research endeavor to attempt a full quantification of these effects, using available central bank information.⁸

Endnotes

¹ Examples of these interventions are the Bank of Spain intervention in the options (put) market during the 1992/93 ERM crisis and the Bank of Thailand sale of forward contracts in 1997.

² Also interpreted as the probability that the put will be exercised.

³ When banks have positive duration gaps, an increase in interest rates will lead to bank losses.

⁴ This is the case of the stabilization scheme adopted in Mexico in July of 1996.

⁵ The Reserve Bank of Australia has resorted to this mechanism with relative frequency. For example, the need to increase liquidity arising from the Y2K problem led to the doubling of the stock of outstanding forward obligations, matched by a similar increase in the total holding of official reserve assets.

⁶ One of the many textbooks that have addressed this topic is Hull (1999).

⁷ Such as those that simply reflect quasi-fiscal operations transferred from the government budget to the central bank for pure political or "cosmetic" reasons.

⁸ A possibility is to utilize risk measurement methodologies such as Value at Risk. For a framework regarding this type of application in the context of central bank portfolios, see Blejer and Schumacher (1999).

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Part 2

How to Prevent Vulnerability of the Financial Sector

Integrated Financial Sector Regulation and Supervision in the Context of EU Accession

Setting the Context: Framework for Financial Sector Development; Lessons of the Northern European Experience

Michael Taylor and Alex Fleming

Introduction

Background

Recently, there has been a groundswell of interest around the world in the organization of the structure of financial supervision. Whereas in the past financial supervision tended to be organized around specialist agencies for the banking, securities, and insurance sectors, in the last few years a number of industrialized countries have moved to integrate these different supervisory functions in a single agency. Indeed an informal club of “integrated supervisors”—comprising representatives from Australia, Canada, Denmark, Japan, Korea, Norway, Singapore, Sweden and the United Kingdom—met in Sydney, Australia in early May 1999 for the first time. They discussed issues of mutual interest arising from the application of the integrated model. In this paper these integrated agencies will be referred to generically as integrated financial sector supervisory agencies (IFSSAs).

Beyond the industrialized countries, some countries that have recently set up a supervisory framework, such as the transition countries of Europe and Central Asia (ECA), have been examining the case for introducing an IFSSA. Latvia and Estonia are examples of these countries. Bulgaria is also reportedly contemplating such a move. Beyond the ECA region, Korea (already in the informal club noted above) and Thailand—both developing countries that have suffered severe financial crises recently—are moving toward an integrated regulator model.

The move to an integrated model is perceived in some quarters as a relatively recent phenomenon, perhaps because the sudden decision to establish the U.K. Financial Services Authority (FSA) received so much attention in the financial press. But it is not perhaps fully appreciated that three of the Scandinavian countries (Denmark, Norway, and Sweden) had adopted variants of the integrated supervisor model since the mid-1980s. Finland has undertaken reform in this area but has not moved to a fully integrated model. It is pertinent to ask therefore what lessons can be drawn from their several years of experience with an integrated approach. While the U.K. FSA experience is too recent to yield lessons in the organizational and operational spheres, it too can shed light on the actual process of integration. Hence, taken together, the Northern European experience can potentially provide a rich source of guidance for those countries contemplating a move to the integrated model.

Structure of This Paper

Accordingly this paper—drawing on the Northern European experience—has been written to assist transition and developing countries address three policy-related issues:

- Under what conditions should, or should not, a country consider moving to an integrated model of financial supervision?
- How should an integrated agency be structured, organized, and managed?
- How should the integration process itself be implemented?

In order to address these issues the paper is structured in five sections. In the remainder of this section the evolution of the debate on integration is discussed. In section I a review of the Northern European experience is undertaken with reference to some key themes that go to the heart of the integration debate. These themes include the question of governance, the structure and organization of integrated agencies, their regulatory powers and responsibilities, and the arrangements for crisis management. The question of how the integration of the constituent agencies can be implemented effectively is broached in section II. Section III seeks to draw out the implications of the Northern European experience for the transition and developing economies. Finally, the last section sets out the main conclusions and identifies areas where further research would be warranted in this fast developing area of interest.

The Evolution of the Debate

An active debate on the pros and cons of the integrated model of supervision began only very recently. The decisions to completely integrate the supervisory agencies in the Scandinavian countries took place as part of an evolutionary process. The final steps toward full integration in the early 1990s were discussed in the Scandinavian press and debated in the respective ministries but did not, for the most part, lead to a significant academic debate.

An intense debate took place as part of the deliberations on the organizational structure of regulation in Australia undertaken by the Wallis Committee (1996). In this context Australia subsequently moved to a type of “twin peaks” structure (Taylor 1995), where regulation is broken down between agencies specializing in prudential supervision on the one hand and conduct of business regulation on the other.¹ A similar debate has taken place in South Africa although no move toward integration has subsequently taken place.

Perhaps the most intense debate—both in the financial press and in academic circles— has taken place in the United Kingdom immediately in advance of, and subsequent to the establishment of the FSA. This intensity was related in part to the fact that the Bank of England had established a substantial banking supervisory capacity and had stressed, over many years, the need to keep monetary policy making and banking supervision in the same body. This, it was argued, enabled the sharing of market intelligence and led to some important synergies. Much stress was put on the argument that monetary and financial stability are inter-related. Hence those in favor of regulatory and supervisory reform were required to put forth a very robust case. The main academic contributors to the U.K. debate have been Goodhart (1996), Taylor (1995, 1996), and Goodhart et al (1998). The most recent rationale for the integrated regulator model can be found in Briault’s paper (1999). Outside the countries cited above there has been little serious debate but this might be expected to take place in the coming years.² But what have been the main factors stimulating this debate? Goodhart et al (1998) have identified six reasons for its recent emergence:

- The rapid structural change that has taken place in financial markets spurred by the acceleration in financial innovation. This has challenged the assumptions behind the original structuring of regulatory organization. The question that arises here is whether institutional structure should mirror the evolution of the structure of the financial sector.
- The realization that financial structure in the past has been the result of a series of ad hoc and pragmatic policy initiatives, raising the ques-

tion of whether—particularly in the wake of recurrent banking crises and dislocation—a more coherent structure should be put in place.

- The increasing complexity of financial business as evidenced by the emergence of financial conglomerates. This has raised the issue of whether a series of agencies supervising parts of an institution can have a grasp of developments in the institution as a whole.
- The increasing demands being placed on regulation and its complexity, in particular the development of a need for enhanced regulation of “conduct of business” (e.g., covering financial products such as pension schemes and insurance offered to consumers).
- The changing risk characteristics of financial firms occasioned by financial innovation.
- The increasing internationalization of banking, which has implications for the institutional structure of agencies at both the national and international level.

Superimposed on these six factors are other country-specific factors that, as the Northern European experience will show, can be very significant.

I. The Northern European Experience

This section distills the common features of the Northern European experience by considering a number of broad themes. These include: the Northern European rationale for an integrated approach; the scope of regulatory powers and responsibilities; the mechanisms for governance, accountability, and funding; the internal organizational structure of the agencies; and crisis management arrangements. All of these issues are important in their own right but it is through examining these in some detail that the subtlety of differences between the models adopted by the five countries under consideration here can be discerned. Moreover some of these issues arise in an especially acute form under an integrated approach so it is important to address these. For example, since an integrated agency represents a significant concentration of power, it is important to ensure that its powers cannot be used to serve political rather than administrative purposes.

In addition to reviewing these issues, this section will also consider the extent to which the alleged benefits of integrated regulation have actually been delivered in the Northern European experience. In addition, it will also review some of the common administrative issues that emerged

from these countries' experience in bringing their integrated agencies into being. Of particular importance in this respect is the contrast between the gradualist, evolutionary approach to integration that was followed in the Scandinavian countries and the "Big Bang" approach to integration that was adopted in the United Kingdom. Whereas the Scandinavian IFSSAs were formed from the creation of only two agencies, themselves the product of prior consolidation, the U.K. approach has been to integrate no fewer than nine existing regulators with significantly different previous cultures and experience.

A Brief Comparative History

As noted above, the current trend toward IFSSAs began in Northern Europe, specifically in the Scandinavian countries of Norway, Denmark, and Sweden. The strong similarities between these countries' economic and financial systems, as well as their political systems and cultures, has produced many similarities in terms of the basic structure and organization of their integrated regulatory agencies. They also report having been influenced by broadly similar considerations in making the move toward an integrated approach to regulation and to having reaped many of the same benefits from this approach. Chief among these benefits has been obtaining economies of scale in the use of scarce regulatory resources in comparatively small, highly concentrated financial systems in which financial conglomerate groups predominate.

Norway was the first country to establish an IFSSA in 1986, by merging its Banking and Insurance Inspectorates. Its decision to do so was the outcome of a long process of consolidation in its regulatory system. Its Bank Inspectorate could trace its history back to the end of the last century, when it was established for the supervision of savings banks. The supervision of the commercial banks was added to its responsibilities in the 1920s. Banking supervision has thus never been formally part of the responsibilities of the Norwegian central bank, and hence the creation of a unified regulatory authority did not involve any significant dilution of the central bank's range of powers. Indeed, a proposal in 1974 for the merger of the bank inspectorate with the central bank was defeated in Parliament.

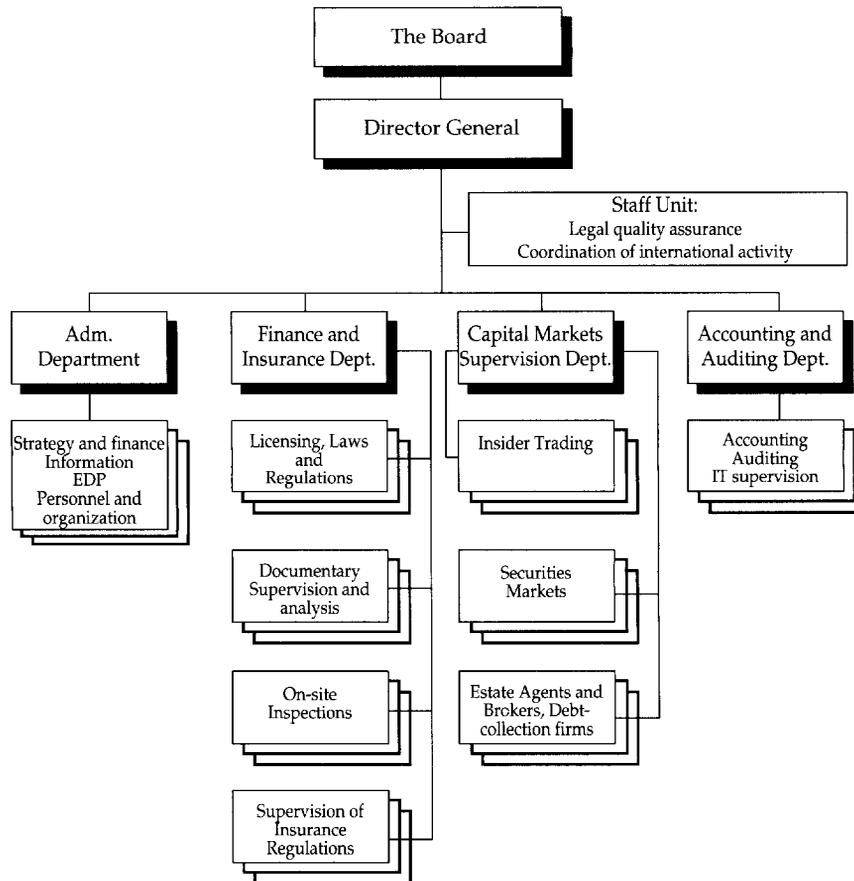
In 1983 the Banking Inspectorate further acquired some of the functions of the securities bureau of the Ministry of Finance. While the Ministry continued to be responsible for regulating the Oslo Stock Exchange—the only organized financial market in Norway—responsibility for the prudential supervision of specialist securities firms and investment management firms was vested in the Banking Inspectorate. The justification for this merger of functions was that the Norwegian banks were already the most active participants in the securities markets, and hence

bringing the supervision of non-bank securities firms within the Bank Inspectorate's range of functions was simply a natural extension of its role in overseeing their activities. It represented the addition of approximately 10 members of staff to the Inspectorate's complement. The final stage of regulatory consolidation occurred in 1986 with the merger of the banking and insurance inspectorates.

Since 1986 Norway's single regulatory agency, the Kredittilsynet, has performed the regulation of banks, non-bank investment firms, and insurance companies, primarily in respect of their solvency. The Kredittilsynet is also responsible for the regulation of real estate brokers and auditing firms. (See figure 1.) It does not have responsibility for supervising the Oslo Stock Exchange at present, although the Ministry of Finance will shortly transfer this to it. The Kredittilsynet is under the direction of a Director General and a five-person supervisory board. Both ultimately report to the Ministry of Finance.

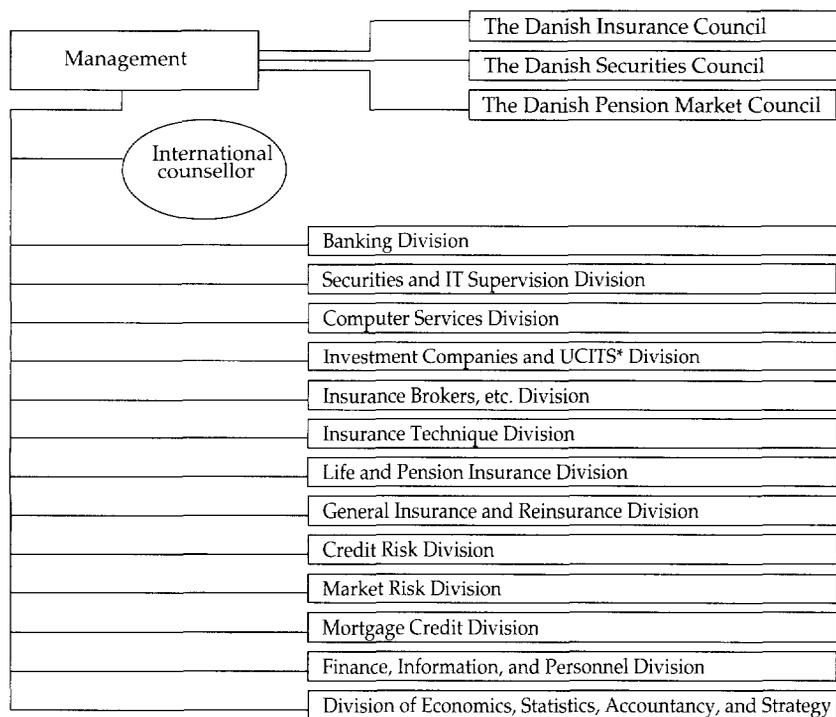
Denmark established its IFSSA in 1988, two years after Norway. Like Norway's Kredittilsynet, the Danish Finanstilsynet was formed from the merger of its banking and insurance regulatory agencies. It has a similar range of responsibilities to the Kredittilsynet (see figure 2). As in Norway, the banking supervisory authority had enjoyed a long history as an agency outside the central bank. It had also combined the prudential supervision of non-bank securities firms as part of its responsibilities prior to the creation of a fully integrated agency. However, the creation of the Danish IFSSA was largely an administrative arrangement, and there was no fundamental review of legislation governing its supervisory activities at the time of the merger. As such it operates under a number of different statutes inherited from predecessor organizations. The sector legislation has been adjusted and harmonized successively during the 1990s. Similarly, its governance arrangements have not been fully unified.

Sweden's IFSSA, also called the Finans Inspektionen, was established in 1991. Its range of responsibilities is similar to those of its sister organizations in the other Scandinavian countries (see figure 3). Its governance arrangements are similar to those operated in Norway, although with a less independent supervisory board. Once more the banking and insurance inspectorates had a long history, and the decision to merge them was taken against the background of enhanced bank/insurance linkages. A further factor was the desire to achieve economies of scale and to enhance Sweden's international presence. (Unlike either Norway or Denmark, Sweden is a member of the Basel Committee on Banking Supervision and therefore a regular participant in one of the leading international forums for regulatory policy.) In addition, the formation of Sweden's IFSSA was a response to the banking crisis that Sweden experienced in 1990-91. A final factor behind Sweden's decision was the

Figure 1. Norway—Kredittilsynet

observation that other Scandinavian countries had already adopted the integrated approach.

Against this background, *Finland's* decision not to adopt a fully integrated approach to supervision, despite many superficial points of similarity with the other Scandinavian countries, also means that it represents a useful point of comparison. To a large extent the Finnish system of regulation followed that of Norway, Denmark, and Sweden until the late 1980s. As in the Scandinavian countries, Finland had for a long time regulated its banks through a Bank Inspectorate outside the central bank. This had acquired the responsibility for the prudential regulation of non-

Figure 2. Danish Financial Supervisory Authority

*Undertakings for Collective Investment in Transferable Securities.

The presentation of the divisions follows the alphabetical order used in the Danish organization chart.

bank securities firms in 1979. However, the conclusions drawn from their banking crisis by the Finnish authorities differed from those drawn elsewhere in Scandinavia. Norway persisted with its integrated agency notwithstanding criticisms of its handling of the banking crisis, and Sweden adopted its integrated approach partly in consequence of its crisis. By contrast, Finland drew the conclusion that its bank crisis pointed to the need to enhance the linkages between its banking supervisors and the Bank of Finland, and to this end created the Financial Supervision Authority, which is independent in its decision making but administratively connected to the Bank of Finland. See organizational chart below (figure 4). Note that the FSA's organization does not have an administrative or personnel department because of the close administrative link with the central bank.

Figure 3. Sweden—Finans Inspektionen

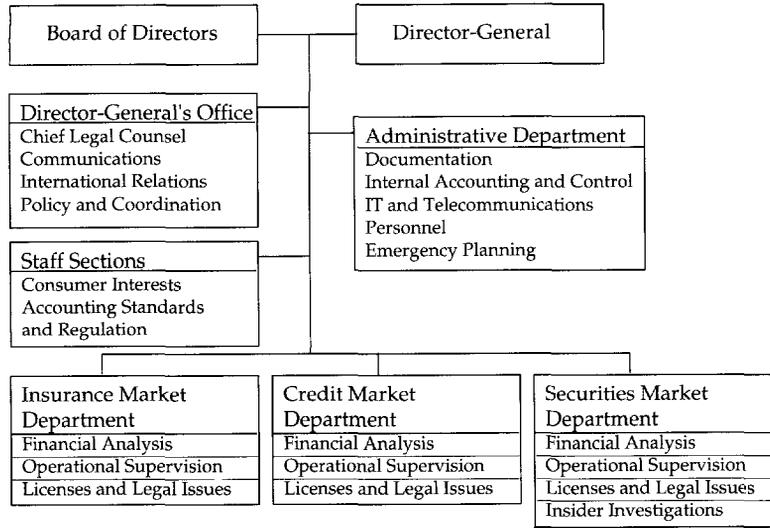
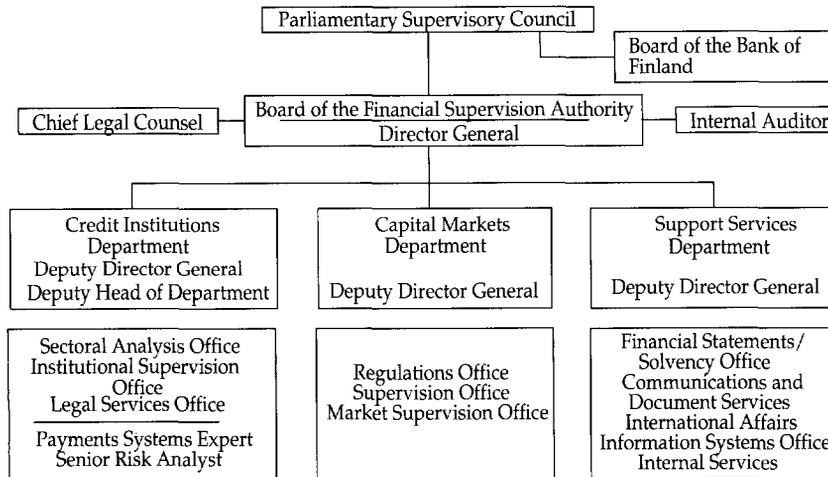


Figure 4. Finland—Financial Supervision Authority



A further difference between Finland and the other Scandinavian countries is that compulsory private sector pension schemes are also a major component of its financial system. Until recently they had been regulated together with insurance companies by a specialist bureau within the Ministry of Social Affairs and Health. However, from April 1999 this responsibility was transferred to a new specialist Insurance Supervision Authority. Our interlocutors in Finland argued that the structure of Finland's financial system, and in particular the issues surrounding the regulation of the private pension schemes, made a fully integrated approach to regulation inappropriate for their country, at least for the foreseeable future.

For different reasons, the *United Kingdom's* adoption of unified regulation stands out as something of an exception among northern European countries. Unlike the Scandinavian countries, the United Kingdom is home to an international financial center and its domestic financial services industry is much larger, more diverse and less concentrated than in Scandinavia. Furthermore, the United Kingdom's Financial Services Authority is responsible for both prudential and conduct of business regulation, unlike its counterparts in Scandinavia, which have focused on prudential regulation only. Finally, the formation of the FSA has been undertaken as a radical, "Big Bang" measure, bringing together nine existing regulatory bodies. By contrast, the Scandinavian integrated regulators were the product of a long process of agency consolidation, and were formed primarily from the merger of banking and insurance inspectorates. Nonetheless, the fact that the United Kingdom's decision to create an IFSSA has been taken against a very different background to that of the Scandinavian countries means that it can serve as a valuable point of contrast.

The Northern European Rationale for Integration

The rationale for bringing together banking, securities, and insurance regulation within a single organization has been most fully explored by the *Norwegian* Royal Commission's report in 1985.³ The other Scandinavian countries that have established IFSSAs have endorsed its conclusions, at least implicitly. Essentially, the Commission stated the rationale for integrated supervision to have two main limbs. First of all, it was argued that integrated supervision would permit more effective supervision of financial conglomerates. Secondly, it was argued that the merger would also permit economies of scale to be obtained in regulation, especially better leverage of resources in administration and infrastructure support.

With regard to the argument about the supervision of financial conglomerates, the Norwegian Royal Commission advanced a number of claims:

- Insurance companies played an important role as investment brokers and there were signs of increased cooperation between banking and insurance businesses (i.e., the formation of “bancassurance” groups).
- Supervision of banking and insurance shared common features, as did legislation governing the two sectors.
- Licensing and other structural tasks would be better coordinated under an integrated approach to regulation.

Thus the growth of bancassurance business—i.e., financial conglomerate groups combining both banking and insurance activities—was regarded as a powerful reason for adopting an integrated approach to supervision. The importance of bank-insurance linkages in driving the process of regulatory integration was reflected in other Scandinavian countries. Denmark followed Norway’s lead by creating a unified regulatory authority in 1988. As in Norway the desire to achieve more effective regulation of financial conglomerates was one of the primary factors influencing the Danish decision to move to a fully integrated approach. Similar factors were also at work in Sweden. Experience with banking crises in these countries (see box 1) also influenced thinking on the integration issue.

The second limb of the justification for integrated supervision was the argument that an integrated agency will be able to achieve significant economies of scale. This justification had a number of different dimensions. In the first place, it was argued that centralizing regulatory functions and activities can permit significant gains from economies of scale through the development of joint administrative, IT, and other support functions. In addition, it was also argued that it would assist in the recruitment and retention of suitably qualified regulatory personnel, who might perceive that the career opportunities available to them in an integrated organization will be significantly greater than in a series of specialist agencies. Finally, it was also argued that it permits the regulatory authority to achieve efficiencies in the deployment of staff with rare intellectual capital. This has been especially influential among the Scandinavian countries that have needed to maximize their use of scarce human resources if they are to be able to participate fully in international regulatory forums. Economies can also be attained with regard to the gathering and using of know-how in specialist areas and to the development and improvement of supervisory methods. This economy of scale argument—which might equally be termed the “small country argument”—is cited by all the Scandinavian countries as a significant factor in their adoption of an integrated approach.

Box 1. The Scandinavian Banking Crises

The banking crises experienced by Norway, Sweden, and Finland in the early 1990s had an undoubted impact on the authorities' decisions concerning the most appropriate structure of regulation. Although the crises themselves followed a similar pattern, and appear to have had similar causes, their impact on the structure of regulation differed significantly between Norway and Sweden on the one hand and Finland on the other.

The Scandinavian banking crises followed a period of significant domestic overheating which was followed by the collapse of asset prices and severe recessions in each of the three countries. This macroeconomic picture was combined with the structural characteristics of a recently deregulated banking sector and poor micro-level risk control in the banks themselves to generate a severe banking sector crisis in all three countries. The crisis emerged first in Norway, where banks' loan losses climbed from 0.7% of total loans in 1987 to 6% in 1991. Similarly, in Finland, loan losses rose from 0.5% in 1989 to 4.7% in 1992. The rise was most abrupt in Sweden which experienced a rise from 0.3% in 1989 to 7% in 1992. In Norway, the resolution costs of the banking crisis in 1991–92 amounted to Nkr 19.2 billion (2.6% of GDP), while at the height of the Swedish banking crisis total commitments (including government guarantees) stood at SKr 85 billion (5.9% of GDP). In Finland, by the end of 1996, the total amount of public bank support disbursed was Fmk 56.6 billion (approximately 10% of GDP).

Source: Burkhard Drees and Ceyla Pazarbasioglu, *The Nordic Banking Crisis: Pitfalls in Financial Liberalization?* International Monetary Fund Occasional Paper 161, April 1998.

Notwithstanding the very different size and nature of its financial sector with those of the Scandinavian countries, the formation of the FSA in the *United Kingdom* has been justified on similar grounds to these. Particular emphasis has been given to the consideration that the emergence of financial conglomerate groups requires an integrated approach to their supervision. Announcing the decision to create the FSA on May 20, 1997, Chancellor Brown declared that the blurring of boundaries between different categories of financial intermediary necessitated a radical rethinking of the structure of regulation. A further justification has been advanced by Briault (1999). Apart from the noteworthy growth in financial conglomerates, he stresses—writing from an FSA vantage point—a number of factors that relate to regulatory efficiency and effectiveness and substantiate the case for the integrated regulator model:

- Economies of scale and scope that arise because a single regulator can take advantage of a single set of central support services;

- Increased efficiency in the allocation of regulatory resources across both regulated firms and types of regulated activities;
- The ease with which the integrated regulator can resolve efficiently and effectively the conflicts that inevitably emerge between the different objectives of regulation;
- The avoidance of unjustifiable differences in supervisory approaches and the competitive inequalities imposed on regulated firms through inconsistent rules, which have arisen across multiple specialist regulators; and
- If an integrated regulator is given a clear set of responsibilities then it should be possible to increase supervisory transparency and accountability.

By contrast, *Finland* has not accepted the case that the formation of financial conglomerates necessitates an integrated approach to their supervision. In any event, the pressure has been muted reflecting the difficulty of combining a unique system of a compulsory pension and other social insurance with a market-based financial supervision. Because of the relatively less developed bank-insurance linkages compared with other Scandinavian countries, there has not been pressure for an integrated supervision either. However, practical cooperation between the FSA and the ISA is being developed to be efficient. To ensure this, the compositions of the Boards of the FSA and ISA are as similar as possible so as to enable closer cooperation between the two supervisory authorities.

Moreover, it should be noted that integrated supervision is not the only way of attempting to achieve significant economies of scale. The Finnish example, where the FSA shares the support infrastructure of the central bank, might offer an alternative model short of the fully integrated approaches adopted in Denmark, Norway, and Sweden. By making use of the administrative services (e.g., data collection), all administrative support and human resource functions bought from the Bank of Finland, the Finnish FSA has also been able to achieve significant scale economies. It should also be stressed that significant professional synergy benefits relate to the close supervisory cooperation with the central bank as regards the payment systems and electronic money.

Finally, although not part of the official justification for integrated supervision, a further factor behind the creation of a number of IFSSAs may also have been the desire to improve the quality of supervision of specific industrial sectors. In a number of Scandinavian countries the Insurance Inspectorate was criticized for adopting a largely reactive

interpretation of its role. For example, prior to the formation of the Kredittilsynet in 1986, the Norwegian Insurance Inspectorate had performed only off-site supervision. In recent years, however, the Norwegian regulatory authority has practiced on-site inspections of both banks and insurance companies, often employing the same teams of inspectors for both types of company. A similar consideration seems to have been at work in Sweden's decision to unify its regulatory system. The influence of the more proactive approach of the banking supervisors was seen as being a valuable benefit.

The Scope of Regulatory Powers and Responsibilities

The Scandinavian countries exhibit significant similarities in the scope and powers of their integrated regulatory agencies. All have a focus primarily on prudential rather than conduct of business regulation. Although each of the integrated commissions has a role in supervising business conduct on the stock exchange, as well as detecting insider dealing, responsibility for dealing with customer complaints and the transaction-by-transaction dealings of firms with their customers tends to reside elsewhere. Consumer protection issues tend to be regarded by the Scandinavian regulators as being outside their area of responsibility and to be best left to various industry Ombudsman schemes. Instead, their focus is primarily on ensuring the solvency of the firms for which they are responsible—especially banks and insurance companies.

However, within this broad similarity of approach, the detail of the powers of the Scandinavian authorities does exhibit significant variation. For example, the *Swedish* Finans Inspektionen has the power to license institutions, reject board members and the CEO as being not "fit and proper," inspect institutions, request information, and make institution-specific standards and directions. On the other hand, it does not have the power to remove directors and auditors, suspend operations, transfer engagements between institutions, or to appoint an administrator. By contrast, the Danish Finanstilsynet does enjoy almost the full range of these powers, although it does not have the power to make institution-specific standards and it may remove auditors although not directors. Norway's Kredittilsynet may grant licenses and authorizations of insurance companies and securities firms, but not banks, where the final decision resides with the Ministry of Finance. Similarly, with regard to decisions concerning the revocation of the license of a major financial intermediary, the Kredittilsynet will make recommendations to the Ministry of Finance, but the latter will have the final say.

The extent to which legislation has been harmonized across the three main industrial sectors—banking, securities, and insurance—also

exhibits significant variation. The *Norwegian* Kredittilsynet operates on the basis of a single underpinning statute that applies across the three main industrial sectors. However, the regulatory process itself continues to exhibit significant variation across sectors.⁴ By contrast, *Sweden* and *Denmark* continue to regulate the different industrial sectors according to different legislation. Denmark's legislation is the least harmonized of the three countries, although this does not in practice seem to have resulted in any serious problems and an effort is in any case currently under way to improve the coherence of its legislative framework.

The Treasury in the *United Kingdom* is currently working to revise financial legislation that will succeed existing laws relating to banking, securities and insurance legislation. The new Act will govern all of the activities of the FSA. In the meantime the FSA is functioning under the old legal framework, which in practice means that some units are at present reporting to both the new FSA board and their old boards. The evolution of financial supervision in the United Kingdom has been quite different from that in Scandinavia in that much heavier emphasis has been placed on conduct of business as opposed to prudential aspects. Indeed there are about twice as many staff working on conduct of business/consumer protection issues in the FSA as there are working on prudential aspects.

One undoubted benefit of the integrated approach when compared with specialist regulatory agencies is that it is less likely that specific regulatory problems will be lost in the gaps between regulatory jurisdictions. A number of cases in the United Kingdom—ranging from Barings to the sale of so-called Home Income Plans⁵—had contributed to the perception that too many problems were simply falling between regulatory agencies. The formation of a single regulatory body has been deliberately designed to eliminate the possibility that disputes over regulatory turf may result in certain types of financial activity going unregulated, or inadequately regulated. In theory the existence of a single regulatory agency also makes it much easier to extend its powers as new products emerge. However, there is also a risk in this, as some of the Scandinavian regulators have found. A single financial services regulator can suffer from a “Christmas tree” effect, in which heterogeneous responsibilities are gradually added to its range of functions. This may eventually result in a situation in which it becomes overburdened with a series of functions that are at best tangentially connected to the agency's primary objective but of which government departments have been keen to divest themselves.

Mechanisms of Governance, Accountability, and Funding

The governance arrangements for the three integrated Scandinavian authorities exhibit marked similarities. All three have been established as

independent agencies outside the government, headed by a director general, and under the general supervision of a relevant government ministry, either finance or economic affairs. The Ministry is able to set the broad parameters of the regulatory agencies' work, and is the main mechanism through which they are made accountable to parliament. However, the degree to which the Ministry is able to interfere in day-to-day operational decisions is limited by the culture of open government which is characteristic of the Scandinavian countries. Moreover, the independence of these agencies is bolstered to differing degrees by the existence of supervisory boards that act as an independent check on the Ministry's relationship with the supervisory agency. However, there are significant differences in the role and responsibilities of these boards, and it is the culture of transparency that is primarily responsible for allowing these agencies to operate free from government interference and control.

Overall responsibility for the day-to-day operational work of the three integrated agencies is in the hands of a Director General. In each case the Government makes the appointment of the Director General. In *Denmark* the Director General is appointed by the Queen (in effect by the Minister of Economic Affairs) and a similar arrangement applies in *Norway*, where the appointment is formally made by the King in Council, but in practice by the Finance Minister. The *Swedish* government also appoints the Director General of its FSA.

The institutional mechanisms for ensuring agency independence are strongest in Norway. The *Norwegian* Kredittilsynet is answerable to a supervisory board comprising five independent members (i.e., members without current ministerial or political functions), drawn from academia, the regulated industries, and public service. It serves to insulate the Kredittilsynet from political pressure and can act as a buffer between the regulatory authority and the Finance Ministry. The Director General is able to report to the supervisory board matters on which he has received directions from the Ministry, and hence an independent check can be exercised on the use of ministerial directions. More generally, the supervisory board approves the annual supervisory plan by which the Kredittilsynet works. The Finance Ministry, however, approves the Kredittilsynet's budget, and the supervisory board does not play any role in the appointment of the Director General.

The Finance Ministry is also empowered to set the general guidelines and parameters of the Kredittilsynet's work, although responsibility for their implementation and for operational issues clearly resides with the Kredittilsynet itself and with the supervisory board. Following the banking crisis of the early 1990s, the respective roles and responsibilities of the Ministry and Kredittilsynet were clarified with the result that all Ministry guidelines and directions to the Kredittilsynet must now be in writing.

This requirement combined with the strong emphasis that exists in Norway on the openness of government and the disclosure of official papers, serves to further strengthen the independence of the Kredittilsynet vis-à-vis the Finance Ministry.

While both *Sweden* and *Denmark* have also established supervisory boards for their regulatory agencies, they are less important than in *Norway* for ensuring agency independence and accountability. In *Sweden* less emphasis is given to ensuring the “independence” of the supervisory board. It comprises eight members, of whom two are current members of parliament. The other members include a justice of the Supreme Court, representatives of the Finance Ministry, Riksbank, and National Debt Office, and a former industry practitioner. The supervisory board decides the application of formal sanctions to firms, and has the authority to make rules under the delegated powers of the relevant statutes. It proposes to the Government Finans Inspektionen’s budget. Unlike in Norway, where the chairman of the supervisory board is one of the “independent” members, in Sweden the Director General also chairs the supervisory board, making his role much more powerful than that of his Norwegian counterpart. As in Norway, the primary guarantee of agency independence is regarded as being the transparency of decision-making processes.

In *Denmark* the Finanstilsynet operates two supervisory boards. When the integrated agency was created in 1988 the supervisory boards of its predecessor agencies were not unified. This has meant that on matters concerning the insurance industry the Finanstilsynet reports to an Insurance Council, which is currently chaired by a Supreme Court judge, and which comprises members representing the industry, consumers, and independent members appointed by the Ministry of Economic Affairs. With regard to the securities market the Finanstilsynet reports to a Securities Council which also exercises oversight of the rules of the Stock Exchange. This complex reporting arrangement acts as a filter between the Ministry of Economic Affairs and the regulatory agency to some extent, but it should be noted that there is no independent oversight of the Finanstilsynet’s activities concerning the supervision of banks. In this case its relationship with the Ministry is immediate and direct, although experience has shown that successive ministers have been less prone to interfere in regulatory decisions than have the Insurance or Securities Councils.

A Board appointed by the Treasury (Ministry of Finance) governs the FSA in the United Kingdom. The Board comprises three executive Managing Directors and ten non-executive members. The Deputy Governor (Financial Stability) of the Bank of England is an ex officio director. The Non-executive Directors—comprising senior managers

from financial institutions and industry as well as academics—review the operations of the FSA and oversee the mechanisms of financial control. The FSA is accountable to Treasury Ministers and, through them, to Parliament. To improve accountability to the public at large, the FSA has set up a consumer panel and a practitioner forum that will, in due course, become statutory under the Financial Services and Markets Act.

The independence of regulatory agencies can be further bolstered by the existence of a dedicated funding source separate from that of the general government budget. However, the need for financial independence for the regulatory agencies needs also to be balanced by the need for accountability in the way revenues are raised and spent. In the Scandinavian countries these demands have been met by an arrangement under which the funding of integrated regulatory agencies is based on an industry levy that is paid directly to the government. The government then awards the regulatory agency an amount identical to the sum raised by the industry levy. Overall control of the budget of the regulatory agencies thus remains in the hands of the Finance Ministry, but the existence of an industry levy provides the funding of the agencies with a significant degree of independence.

It should be noted, however, that *Finland* has adopted a fundamentally different approach to the governance arrangements for its regulatory authority. In 1993 it replaced its Banking Inspectorate, which had been an autonomous agency reporting to the Minister of Finance, with a Financial Supervision Authority which is administratively linked to the central bank. Although the Finnish FSA is independent in its decisionmaking, and has its own enabling statute and powers, the links with the central bank are very close. FSA staff are employees of the Bank of Finland and all administrative services (e.g., accounting, personnel and training, administration functions, security services, publication services, translation services) are bought from the central bank. In addition to the administrative services, the cooperation between the FSA and the Bank of Finland is prominent and continuous (e.g., financial market stability issues and supervision of payment and settlement systems). The central bank board, not the Ministry of Finance, approves the FSA's budget. However, the FSA's operating costs are covered by supervision fees and processing fees paid by the supervised entities. The board of the FSA comprises, in addition to the Director General of the FSA, representatives from the Bank of Finland, the Ministry of Finance, the Ministry of Social Affairs and Health, and the Insurance Supervision Authority. The Chairman of the Board is from the Bank of Finland. While it should be noted that the Finnish FSA is not a genuinely integrated financial regulator—it is responsible only for banking and securities regulation—this governance arrangement may be worth considering in countries where

there are concerns about insulating regulation sufficiently from political interference. In many jurisdictions the central bank is now legally (or even constitutionally) guaranteed its independence. This means it may be able to insulate regulation from political pressures to a significant degree.

Internal Organization of the Integrated Agencies

One of the main justifications for creating integrated regulatory agencies has been the growing convergence of the main industrial sectors of banking, securities, and insurance. In the Scandinavian countries, the growth of financial conglomerates combining both banking and insurance business was especially influential. However, despite the fact that one of the main reasons for adopting the integrated approach to regulation was to enable regulators to better deal with the problems associated with supervising financial conglomerates, an administrative structure adapted to this task has been hard to find.

The integrated commissions still tend to be largely organized along institutional rather than functional or product lines. Thus the *Swedish* Finans Inspektionen has three main supervisory departments, dealing with the insurance, credit, and securities markets respectively. Each department conducts financial analysis, operational supervision and deals with licensing and legal issues relating to the group of institutions it is responsible for supervising. A similar structure was followed in *Denmark* until quite recently. However, under a recent internal reorganization—the fourth such to have been undertaken since the Finanstilsynet was created in 1988—a larger number of small departments have been created. The focus of this organizational structure continues to follow institutional lines, for example with departments being formed to regulate the large commercial banks, small commercial and savings banks, and non-bank investment firms. One motivation behind this most recent reorganization is to facilitate the emergence of a matrix structure in which “centers of expertise” are developed with the ability to collect know-how that can be applied across a number of different departments. A further motivation has also undoubtedly been the desire to break down some of the entrenched agency cultures that tend to persist when the separate regulatory agencies continue a de facto existence as divisions within an integrated agency. All the Scandinavian integrated agencies reported that the elimination of pre-existing agency cultures had been exceptionally difficult (see the discussion of administrative problems in creating an integrated agency at the end of this section.)

Norway has also experimented with a number of different organizational forms for its integrated financial regulator. Two divisions now regulate most of the companies for which the Kredittilsynet is responsible.

One, the Finance and Insurance department, is concerned with the solvency of both banks and insurance companies. However, an attempt to integrate their regulation fully, with the same team of examiners being responsible for both banks and insurance companies, has not been judged a success. The loss of industry specific expertise outweighed the gains in consistency achieved in the supervision of financial conglomerates. As a result the supervision of insurance undertakings has been re-established as a separate unit under an assistant director within this department. The other main department within the Kredittilsynet is responsible for the supervision of the capital markets, including non-bank investment firms. This division is also concerned with the regulation of real estate agents and brokers and debt collection firms, all of which fall within the Kredittilsynet's area of responsibility.

The *United Kingdom's* FSA is divided into three main areas: financial supervision; authorization, enforcement and consumer relations; and support services. Within the financial supervision area the work remains organized broadly along institutional lines although a "complex group" division has been established to handle the supervision of increasingly complex major firms. This division was established to develop a more integrated supervision of "groups," that is, financial institutions undertaking a range of financial sector activities and trading in complex or innovative instruments. The supervision of banking and securities business is gradually being integrated with a single manager and team being responsible for supervising both activities.

As these varied experiences well illustrate, no one model for the internal organization of an integrated regulatory agency has been notably more successful than any of the others. All the agencies in this study remarked on the difficulty in breaking down the entrenched cultures of their predecessor bodies, a problem that persisted as long as they continued to be organized along traditional institutional lines. On the other hand, there are no obvious successful alternatives to this type of administrative structure, at least as long as different regulatory requirements continue to be appropriate for different industrial sectors. However, one clear benefit of the integrated approach to supervision is that it makes possible experimentation with alternative organizational forms, without running up against the barriers resulting from separate agencies operating under separate statutory authorities.

Crisis Management Arrangements

Removing the banking supervision function from the central bank did not lead to the creation of the three Scandinavian integrated regulatory bodies: in each case the regulation of commercial banks had long been

conducted by a specialist banking supervisory body. This feature of their shared experience has a number of implications. In the first place, the creation of an integrated agency has not proved as contentious in some other jurisdictions where it has necessitated removing a long-established supervisory function from the central bank. Secondly, however, there has also been much less explicit consideration given to crisis management arrangements as has occurred when the banking supervisory function has been removed from the central bank. In the latter case it has been considered necessary to find a substitute for the type of liaison that would normally occur between banking supervisors and the officials responsible for market operations when both work within a single organization.

In the *United Kingdom* a “Memorandum of Understanding” has been agreed between the FSA, the Bank of England, and the Treasury governing arrangements for maintaining financial stability. A “Standing Committee” has been established with representatives from each of the three institutions. This meets monthly but would meet more frequently in the event that serious problems, with potential systemic implications, arose. A clear delineation of responsibilities has been established based upon the principles of item accountability, transparency, no duplication and regular information exchange. The “head institution” in any situation would depend on the precise nature of the problem.

Although the three *Scandinavian* integrated authorities hold regular meetings with their respective central banks, and share information about individual institutions with them on request, none has the kind of formalized crisis management arrangement to be found in the United Kingdom. There is no equivalent of the Memorandum of Understanding that exists in the United Kingdom between the Treasury, Bank of England, and FSA. This means that arrangements for dealing with a crisis tend to be ad hoc and vary significantly between countries. For example, the *Norwegian* experience of its banking crisis in the early 1990s tends to suggest that the Kredittilsynet will play a subordinate role in any financial crisis. The lead in resolving the crisis of 1990–91 was taken by the Finance Ministry and the central bank, as well as the agencies established by parliament to undertake the recapitalization of the banking system. (It should be noted, however, that one consequence of the early 1990s crisis was that the Kredittilsynet embarked on a program aimed to improve its efficiency and effectiveness and this may mean that its role in any future crisis would be enhanced.). By contrast, *Denmark’s* Finanstilsynet has operated proactively in crisis resolution—to the extent that the Ministry has intervened in order to ensure that the Ministry in the future authorizes any departures from its routine practices. Even under the new dispensation, however, there is a

clear expectation in the Danish integrated authority that it would assume the lead role in any financial restructuring.

These differing arrangements suggest that the approach to crisis management adopted under an integrated system can take a number of different forms, and the extent of central bank and ministry involvement can also exhibit significant variation. However, it should also be noted that a significant factor in *Finland's* decision not to adopt an integrated approach was precisely that it concluded that close central bank involvement was essential to managing a financial crisis. What is clear is that an integrated approach to regulation requires careful reflection on the mechanisms and approaches that would be adopted should a financial crisis erupt.

An Assessment of the Northern European Experience with Integration

There is evidently significant variation in the detail of the integrated approach to regulation found among the three Scandinavian countries. Nevertheless there is also a strong consensus in those countries concerning the benefits of integrated supervision. The three countries have not expressed any regrets about the decision to follow a policy of integrated supervision, and there was a widespread view that it had delivered a number of significant benefits. In Denmark, Norway, and Sweden it is maintained that the "small country rationale" for integrated supervision has been conclusively vindicated by subsequent experience. Although it is difficult to measure efficiency gains and economies of scale in any meaningful sense for these types of administrative agency, all three agencies believe that they have realized significant benefits from this source. All of the agencies interviewed believed that they had been able to achieve significantly more effective regulation on the basis of limited resources than would have been the case had their regulatory agencies remained separate.⁶ While the absence of hard data to confirm this opinion makes it difficult to arrive at a decisive conclusion that an integrated approach has generated regulatory efficiencies, the pervasiveness of this belief throughout the senior management of the integrated regulatory authorities is striking. On the basis of this anecdotal evidence there would thus seem to be some justification to the "small country rationale" for integrated regulation.

There would also seem to be little doubt that the creation of integrated agencies has also significantly improved the standing of financial regulation in the three Scandinavian countries. This has been achieved in a number of different ways. First of all, the creation of a (comparatively) large, quasi-autonomous regulatory body has delivered a higher status

for regulation within the governmental machinery than separate specialist agencies could have achieved. On the one hand this has meant that fears that a single integrated authority might be easier for politicians to influence have been counterbalanced by the enhanced self-confidence of the regulators themselves. On the other hand, integrated regulatory agencies appear to have been more successful than specialist agencies in securing the funding needed for the effective discharge of their responsibilities. Small specialist agencies – especially when they exist merely as bureaus of the Finance Ministry – can struggle to make their case in the annual budget round. As a result, all too often they are starved of necessary funding and their staff are remunerated at rates that are noncompetitive with the markets they regulate.

Secondly, the creation of a high profile agency of sufficient size to offer a degree of career progression for its staff also appears to have contributed to overcoming problems of staff recruitment and retention. This has in turn enabled the integrated regulatory agencies to develop a cadre of professional staff. The existence of this cadre has in turn contributed to the standing of the agencies, which has in turn assisted in recruitment/retention, and so on in a virtuous circle. However, this virtuous circle is not an automatic process. As the early teething troubles of a number of the integrated regulatory agencies indicate, building a cadre of professional staff is a matter calling for great senior management skill. Simply integrating regulation and sitting back to wait for it to deliver the expected benefits is not enough.

The other main limb justifying an integrated approach to regulation is the need to respond to the formation of financial conglomerates. In this case the benefits of an integrated approach have not been as evident in practice as might have been expected in theory. In theory an integrated regulatory agency would be an appropriate response to conglomeratization because it enables regulators to assess risks on a group-wide basis. By contrast, specialist regulators are inevitably only concerned with individual entities in a group, and no one regulator has the skills or powers to obtain a group-wide perspective. Secondly, integrated regulation should help eliminate the potential for regulatory arbitrage by financial conglomerates. By applying a single set of regulatory requirements across a diversified financial group an integrated agency should in theory be able to achieve greater clarity and consistency than specialist agencies, and reduce the scope for one set of regulatory requirements being evaded by transactions being booked elsewhere in the group.

In practice it has been difficult to deliver some of these benefits. In part the reason for this has been that in most of the Scandinavian countries—with the exception of Norway—the administrative re-organization of regulation was not accompanied by a radical review of existing

legislation. The Danish example is perhaps the most striking in this regard. In Denmark the creation of its Finanstilsynet was undertaken almost exclusively as an administrative matter with little or no primary legislation. This means that over 10 years later the Danish Finanstilsynet is still working with legislation inherited from its predecessor organizations. The absence of a single, coherent underpinning financial services statute has inevitably meant that some of the alleged benefits of an integrated approach to financial conglomerates has been difficult to deliver.

The theoretical benefits of integrated supervision have been difficult to deliver for administrative reasons as well. As noted above, no one model of internal organization has proved to be definitively superior to any other. When the Scandinavian integrated agencies began their operations most did so by preserving their predecessor agencies as separate divisions within the new organization. This had the disadvantage of preserving a sense of separate identity and culture among these different divisions, with the result that in a number of cases they seem to have communicated no more successfully than did separate agencies. On the other hand, more recent attempts to reorganize the integrated agencies along more "functional" lines (for example by distinguishing between larger, systemically important institutions and smaller, non-systemic institutions) have resulted in complex internal matrix management structures. It is too early to say whether these new organizational forms will deliver the benefits in the supervision of financial conglomerates which in theory an integrated supervisor should be able to deliver. Perhaps the best that can be said at this stage is that integrated regulatory bodies permit experimentation with organizational forms that is denied to specialist agencies, and from this process of experiment a more effective solution might be found.

II. Making the Transition to an Integrated Agency

The Northern European experience suggests that there are two critical issues that need to be addressed if an integrated agency is to be successfully established. First, it is important that the transition for the individual specialized agencies to the unified agency is managed effectively. In this context it is vital, once the decision has been made to make the transition to an integrated agency, to develop an implementation plan that will dictate the path from the fragmented to the integrated model. Second, once the integrated agency is in place there is a range of administrative and personnel issues that must be addressed. It is appropriate that these be done in the context of a well-managed change program. The Scandinavian experience can shed light on the transitional

issues as the agencies concerned have now had time to “settle” in the wake of the merger. The U.K. FSA offers the most recent experience, however, and this in the context of a “big bang” involving some 1,800 staff in London.

The Path to Integration

There is a major question at the outset regarding the pace of transition to the new agency. On the one hand a long lead time can help ensure that an effective plan has been put in place and that all the details of the transition process itself have been ironed out in advance. On the other, a long transition period can mean that the individual fragmented agencies and their managers become, in a sense, “lame ducks.” Important decisions on IT development and staffing and even core decisions on supervisory issues may be delayed pending the establishment of the new agency. In some countries concerns about establishing a revised legal framework to govern the working of the integrated agency will militate in favor of an extended transition period. In other countries—the U.K. FSA is a good example here—a “big bang” integration was followed. There was a conscious decision to move ahead more quickly with the physical integration process even though the new the legal framework was not in place. As noted earlier this meant that there were a number of sub-optimal practices (such as reporting to old and new boards) that had to be retained for a time. There was a recognition in the FSA that not all of the problems associated with a “big bang” merger could be solved overnight and that some flexibility was needed to find workable solutions to problems as they arose. On balance it is desirable to complete the implementation phase as quickly as possible.

There is also an issue as to whether a country that may have a strong case for integrating its agencies—such as a small country with a highly integrated financial sector—should consciously delay considering an integrated structure as a policy option. Such might happen if the country feared disrupting a relatively new but fragmented organizational structure, as is the case in some transition economies. Proponents of this approach argue that the benefits of integration could be reaped in a fragmented structure by simply ensuring that there is a high degree of cooperation and information flow between the agencies. The pertinent counter-argument is that delaying such a decision will serve to cement in place the existing structure and the separate cultures and systems that evolve. This would make the eventual, possibly inevitable process of integration all the more difficult to achieve. The box below illustrates the added factors that come into play when considering integration in a transition environment.

Box 2. Special Problems of Integration in Transition Economies

There are a number of unique problems that come into play when a transition economy decides to move to an integrated model of supervision from a fragmented one. In most instances in E. Europe and the Former Soviet Union there has been a significant effort to strengthen the supervisory framework for banks, often with substantial technical assistance from international financial institutions or bilateral donors. The incidence of banking crises in a number of these countries has intensified the effort to bolster capacity in the banking supervisory functions. In economies that are dominated by banks (at least in the early stages), banking supervision has rightly been seen as a priority. While the strength of these agencies varies from country to country, in general they are perceived to be the strongest of the financial supervisory agencies. Meanwhile the emergence of stock exchanges—the main symbol of the arrival of the market economy—has brought with it the development of regulatory agencies, several of them modeled on the SEC in the United States. These are also of variable quality across the ECA region. The supervision of non-bank financial institutions, which have begun to grow at a fast pace in some transition economies, is virtually nonexistent.

Against the background of the above developments there is a growing concern in many transition economies to ensure that the financial sector as a whole is subject to supervision so that regulatory “gaps” do not appear. However there is a fear that if banking supervision is removed from the Central Bank (where it typically resides in a transition economy) to combine with weaker supervisory bodies for other elements in the financial system then this will lead to some adverse effects. First, the weaker elements in the integrated agency will “dilute” the strength of the stronger (banking) element. Second, significant numbers of banking supervisory staff may leave the integrated agency (to join commercial banks where the pay is higher) rather than take a lowering of status. Finally, a dangerous vacuum of authority could arise in the new agency until it has established its credibility.

Given these concerns it will be vital to ensure that the senior management of the new integrated agency has strong technical and managerial credentials with high stature in the financial markets. Most important, the merger must be undertaken with great care and sensitivity so as to retain the capacity of the banking supervisory function.

Change Management Issues

Two significant change management issues are likely to be confronted by a newly integrated agency: dealing with staff dislocation issues and changing the culture. Failure to address these issues effectively will undermine the ability of the new agency to perform the supervisory mandate it has been given.

INITIAL STAFF DISLOCATION. Typically when several established agencies are merged to create a new agency significant strains arise. Some of these strains can be ameliorated by moving staff en bloc from the old agency to the new and placing them into divisions that reflect the structure of the former. But there are two problems with this approach. First, the opportunity that integration offers is the chance to reassess staff and re-grade positions leading in some instances to an integrated institution that is smaller than the sum of its parts (especially in the area of support services). Also, the opportunity to reappraise the skills mix should not, perhaps, be missed. Second, the direct re-establishment of the old structure in the new institution would lead to the maintenance of former practices and cultures at a time when every effort should be made to break down the barriers (and possibly hostilities) between what may have been rival institutions. There is probably little alternative in the short run to establishing an organizational structure structured along institutional lines.

Evidence from all of the Northern European experience suggests that there is, in any case, a high risk of a large attrition rate in the first year of the new agency. This was the experience of the Scandinavian merged agencies as well as the U.K. FSA where a first year turnover rate of 13 percent was registered (some staff did not want to extend their commute times to the relatively remote location of Canary Wharf). Staff retention can be improved by ensuring that remuneration packages are competitive and at least as good as in the previous agencies. Some of the Scandinavian agencies reported particular difficulties with retaining trained accountants and actuaries, but this is probably a more deep-rooted problem of retention. Pay scales should be structured so as to give the latitude to pay relatively high salaries to certain categories of staff.

There is also a potential personnel minefield at the management level in a new agency. At the highest level there is a question of who should lead the new agency. Specifically, which—if any—agency should provide the new agency head? The numbers of middle managers and their agency or origin can also be an emotive subject and has been an issue in the U.K. FSA. The issue of equitable treatment of the constituent agencies in this regard is typically a matter of concern to the staff and management.

All of the factors noted above point to a need for a strong human resource (personnel) function being established at the outset to sensitively manage this and other aspects of the transition.

CULTURAL CHANGE:⁷ Invariably different institutions will have developed different cultures over the years of their existence. The culture of an agency can be conditioned by such factors as: the general approach to the supervision of entities under their wing; the terms and conditions of

work; the nature of perks; working hours; the size and nature of office accommodation; and the style of management. With regards to differences in approach to supervision, one U.K. FSA official—seeking to emphasize the sharp differences in supervisory culture—described the differences in banking and securities supervision as being a “doctor versus a policeman.” The doctor being the remedial approach adopted in the supervision of banks and the policeman referring to the strong remedies applied by securities regulators in dealing with infringements. Also banking supervisors and securities regulators tend to place some emphasis on intrusive on-site examinations while insurance supervisors have been typically accustomed to working off-site. When different cultures are merged in a single agency it can create significant adjustment problems. This is confirmed by experience in all of the Northern European integrated agencies.

Some of the Northern European agencies engaged specialist-consulting companies to assist in solving these sorts of problems. The results were mixed, however. One view expressed was that a strong internal change team, more familiar with the issues and the staff, could have a more effective impact.

As noted above, cultural differences could persist in a situation where the original agencies are transplanted into the new agency to create silos of staff that are still segregated. In practice, this might be the only realistic short-term option in most instances. If this is the case, however, immediate actions must be taken to break down the cultural divide. Working groups should be set up, comprising members of each of the original agencies, that should be charged with the task of developing a program for breaking down the cultural barriers. This has proved relatively effective in the U.K. FSA context. On balance, the quicker that a new agency is able to mix staff across the old boundaries, the better.

The sort of techniques that can be applied includes the structuring of cross-cultural teams and the holding of teambuilding retreats. Communications to staff should be open and frequent. Over time (and as noted earlier in the paper) there should be more radical experimentation with different organizational forms that cuts across cultures and emphasizes functional rather than the earlier institutional breakdowns of staff. In the U.K. FSA the complex groups organizational unit can also be construed as an attempt to bridge the different cultures by bringing to bear staff with different skills and backgrounds to the supervision of a financial conglomerate. Parenthetically it should be noted that the complex groups formulation has led to its own problems, not least the fact that staff not working on complex groups may have, to some extent, felt like second-class citizens. That said, however, the U.K. FSA has worked hard to break down the barriers between different categories of staff, not least

by the strong symbolism of establishing a completely open plan office, even for the most senior of management.

Over and above the modalities noted above for bringing staff together, a conscious policy of rotating staff—to the extent that sunk skills are transferable to other tasks—can help lower barriers. In the longer run the influx of new staff and the turnover of older staff will renew the institution and completely break down the old cultures.

III. Implications for Developing and Transition Countries

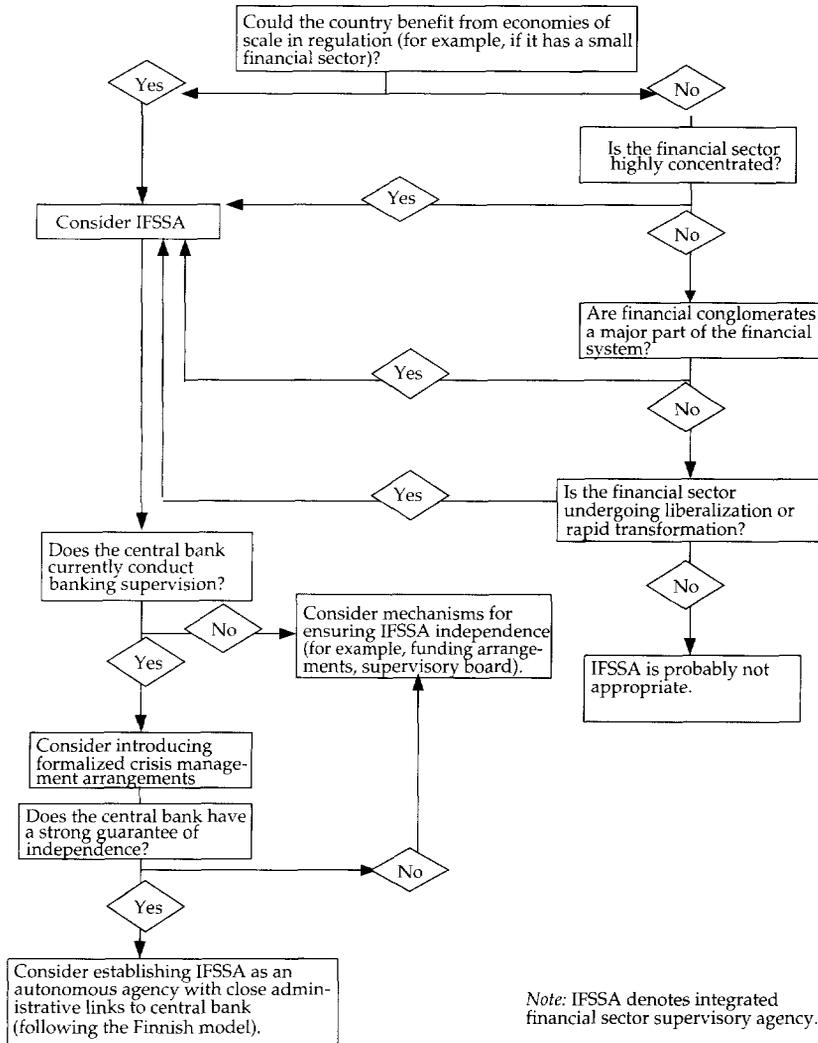
Deciding on an Integrated Model

The foregoing review of the Northern European experience of integrated supervision suggests that there are two main operative reasons for these countries' having adopted this organizational form of regulation. The first is the desire to achieve economies of scale in regulation, an argument that is especially strong in the comparatively small countries of Norway, Denmark, and Sweden. The second main reason is a desire to respond to the formation of financial conglomerates. In the Scandinavian countries these primarily took the form of bancassurance groups; banking and securities markets activities had already been closely integrated for a number of years. In the United Kingdom, the rationale was based more on the growing integration of banking and securities activities, with the development of bancassurance playing a subsidiary (albeit still significant) role. However, in all these cases there was a perceived need to bring greater clarity and consistency to the regulation of complex financial groups. In short, the need for integrated supervision tends to reflect the underlying integration of financial markets.

These arguments for integrated regulation do not automatically imply that this organizational form would be appropriate for transition economies or the emerging markets. It is important that the organizational form of regulation be adapted to the circumstances of particular countries. Of especial importance is ensuring that the structure of regulation is adapted to the underlying structure of financial markets. For example, there might be little point in integrating supervision if credit, securities, and insurance markets remain largely distinct.

The purpose of the decision tree (figure 5) is to assist in the process of choice of organizational model. It begins with the "small country argument" since, as our examination of the Northern European experience has indicated, this would seem to represent the strongest justification for creating an IFSSA. Indeed, the "small country" rationale is something of a misnomer. It might more accurately be termed the "small financial system" rationale. As such, it applies to many transition and developing

Figure 5. Integrated Supervision Decision Tree



countries since, although they may be much larger than the Scandinavian countries in terms of population, their financial systems are approximately of the same size or smaller when measured by assets or capital.

Thus the “small country [financial system] rationale” would also seem to apply in many transition and developing economies. One reason simply is that their human resources in regulation will inevitably always be

thinly spread. But in many of these countries this problem is compounded by the fact that they are still in the process of building up their human capital. As already noted, one of the clear benefits derived from the Scandinavian experience was that integrated supervision has permitted the formation of a stronger cadre of regulatory professionals than otherwise would have been the case. Where regulatory resources are scarce, and a cadre of regulatory professionals is being developed, the argument that all the relevant human capital should be concentrated in a single organization becomes particularly strong.

Another aspect of the “small country rationale”—the desire to achieve economies of scale—may also be relevant in the transition and developing economies. One undoubted advantage of the integrated approach is that it permits the centralization of support and infrastructure services such as recruitment, training, administration, and IT. To the extent that this can result in cost savings in an environment where regulatory activities may be severely constrained by budgetary considerations, the benefits should not be underestimated. On the other hand, it should also be noted that there are other possible approaches to obtaining the same economies of scale. As noted above, the Finnish approach offers an alternative to that of the IFSSAs adopted in the other Scandinavian countries.

If the small country rationale does not evidently apply, the second stage of the decision tree is to consider the degree of concentration in the financial services sector. The Scandinavian financial services sectors are highly concentrated, with comparatively few financial groups accounting for the preponderance of financial sector assets,⁸ and there is little doubt that this has been an important contributory factor in the decision to establish an IFSSA. It was argued by some of our interlocutors that a highly concentrated financial sector points to the need for regulation to be integrated to provide a sufficiently strong counterweight to the economic power these groups might potentially exercise. A similar argument may also have influenced the thinking of the U.K. government in deciding to establish the FSA. Similarly, an argument for integrated supervision in transition or developing economies is that their financial systems also tend to be dominated by relatively few large financial institutions. A typical feature of many transition economies is a highly polarized financial system with a large share of their deposit and loan markets being accounted for by relatively few institutions. These institutions are not only able to exercise significant economic power but they often wield significant political influence as well. They are often state-owned or recently privatized, and in any case their links with the governmental machinery remain strong. In such an environment there is a clear case for a strong, centralized regulatory agency to act as a counterweight to the power and influence exercised by these groups.

The third step in the decision tree is to consider the financial conglomeratization argument. Financial conglomerates in the sense that they exist in the industrialized countries of Northern Europe are relatively rare in the developing and transition economies, and hence this argument would seem to be less important than it was for the Scandinavian countries or the United Kingdom. Transition and developing market financial systems remain bank-dominated, with comparatively little role at present for either securities markets or non-bank financial intermediaries such as insurance companies or pension or mutual funds. Hence, diversified financial conglomerate groups that combine banking, securities, and insurance business in approximately equal measures tend not to exist in these countries. Nonetheless, the dominance of banks within these economies means that they tend to be the most active participants in all forms of financial intermediation. To the extent that securities or insurance markets do exist, the primary institutions operating in them are usually banks offering a full range of financial services. This gives rise to a variation on the financial conglomeratization justification for the creation of an IFSSA. Given that banks are the central institutions in the financial system, with non-bank financial intermediaries relegated to a largely peripheral role, the case for integrated supervision becomes much stronger. In such an environment it may make sense for the organization that regulates banks also to regulate other types of financial intermediaries and activities. This will help ensure that all of a bank's activities are subject to consolidated supervision by a regulator that is not inhibited from overseeing them by a lack of appropriate powers.

The next step in the decision tree is to consider the argument that integrated supervision is better adapted to financial sectors that are undergoing a process of rapid change and innovation, for example as a result of recent financial liberalization. The experience of integrated supervision in Northern Europe suggests that this factor may be particularly relevant to the transition and developing economies. Integrated supervision makes it comparatively difficult for potential problems to disappear through the gaps between regulatory jurisdictions. The financial sectors of transition and developing countries can undergo a process of rapid transformation, especially in the immediate aftermath of liberalization. The emergence of new types of financial intermediaries and new types of financial product may leave conventional regulatory structures struggling to keep pace. An instance is the emergence of finance and leasing companies, which can be the source of significant credit expansion in their own right. Excessive expansion by these companies was at the root of the Secondary Banking Crisis in the United Kingdom during 1973–74 and the Scandinavian banking crises of the early 1990s. Hence monitoring the activities of these companies matters from the point of view of macroprudential policy.

An integrated supervisory agency might be better placed than specialist agencies to monitor the activities of such companies, simply because it does not suffer from the kinds of boundary disputes that can plague a series of specialist regulators. Hence one of the most important factors to be considered in establishing an integrated supervisory authority is whether or not the financial sector is, or is likely to be, undergoing a process of rapid mutation in which conventional lines of demarcation may become a hindrance. In this event, an integrated supervisory agency would seem to offer significant advantages over a series of specialist agencies.

If one or more of these factors points toward the creation of an IFSSA, then the decision tree requires a number of more specific factors to be considered. Of particular importance is the question of whether or not the central bank currently conducts banking supervision. The formation of an integrated regulatory agency necessitates consideration of the crisis management arrangements that will be put in place. As already discussed, the Scandinavian experience was exceptional in that banking supervision had never been a central bank function in these countries. This meant that there has been comparatively little consideration of the implications for crisis management of the formation of an integrated agency. By contrast, in Britain, the FSA was formed in part by the banking supervision division of the Bank of England. These circumstances resulted in a more formalized approach to the arrangements for crisis management than had been the case in Scandinavia. For many of the transition and emerging market economies the formation of an integrated regulatory body would similarly require the central bank to surrender some of its existing functions. In these circumstances, a more formalized approach to crisis management, based on the United Kingdom's arrangements, might be appropriate.

Also important is the question of whether or not the central bank has strong guarantees of its independence. If it does, then removing banking supervision from its functions may have a detrimental effect on the independence and quality of the banking supervisory function (as noted in box 2). This problem may be especially pronounced in the developing and transition economies where guarantees of agency independence from political interference can often be difficult to establish. In this case, consideration should be given to establishing the IFSSA as an autonomous agency with administrative links to the central bank, based on the Finnish model. This model may have much to offer the developing and transition economies, given the role of the central bank in relation to the Finnish supervisory authority. Since central banks tend to be relatively autonomous of the rest of the governmental machinery, permitting them a major role in the budgetary, policy, and appointments process for regulatory agencies might be a way of insulating the latter from the political process. However, the proposed structure would differ from the Finnish model in that all three sec-

tors of the industry—banking, securities, and insurance—would be regulated by the integrated supervisory agency. On the other hand, balanced against this argument is the consideration that such an arrangement might implicitly be seen as extending the central bank guarantee of support across the whole financial sector with the associated consequences for moral hazard. Any institutional design on this basis must ensure that the relationship between the central bank and IFSSA is sufficiently arms-length to ensure that this perception does not develop.

If the IFSSA is not associated with the central bank, other mechanisms must be considered to ensure its independence. One aspect of the Scandinavian experience that would be difficult to transplant into a transition or emerging country environment concerns the governance arrangements for their regulatory agencies. As noted above, the Scandinavian countries place substantial emphasis on the transparency of decisionmaking as the primary mechanism to ensure both the independence and accountability of their regulatory agencies. But this approach is premised on the existence of a political culture that prizes openness and transparency and in which decision-makers recognize the legitimacy of public scrutiny of their decisions. In many transition and emerging countries these preconditions are absent. This means that the governance mechanisms of their regulatory bodies need more careful consideration than has been given in some of the Scandinavian countries to date. This problem applies whatever the nature of the regulatory structure adopted, but it is arguably compounded by the decision to form an integrated supervisory agency. It could be argued that politicians or vested interests would more easily capture a single supervisory body than they could a more diverse regulatory system based on specialist agencies. Put somewhat crudely, a single Director General might be more easily suborned than would three. In the absence of central bank involvement, it will be necessary for the governance provisions of a single regulatory agency to cover such matters as the terms of appointment for the Director General and other board members. This includes: their term of office and conditions of dismissal; and ideally the role of two independent authorities (e.g., Finance Minister and parliament) in determining appointments. There should also be clear public criteria, stated in advance, according to which appointments should be capable of being justified.

Internal Structure

Finally, although not formally part of the decision tree itself, consideration must also be given to the internal structure of the IFSSA. It should also be apparent from the earlier discussion that there is no one right model for the internal organization of an integrated regulatory authority.

Least difficult to implement is a structure that continues to preserve the distinction between banking, securities and insurance regulation as separate operational divisions within the integrated authority. This has the virtue of simplicity. It is not well adapted to dealing with financial conglomerates, although this is less likely to be a problem in the developing and transition economies for reasons already discussed. More problematic is the tendency to preserve existing institutional cultures, thus inhibiting the agency's ability to function as a single integrated entity. As already stressed at a number of points in this paper, there is a premium on high quality management that can make an integrated supervisory authority a reality. The decision to integrate is only the beginning of a long and difficult process (as previously mentioned).

Conclusions

Three Questions About Integration

The Northern European experience has been able to shed some light on the three questions posed at the outset of this paper that were central to the debate on the integration of financial regulation in transition and developing economies.

UNDER WHAT CONDITIONS SHOULD, OR SHOULD NOT A COUNTRY CONSIDER MOVING TO AN INTEGRATED MODEL OF FINANCIAL SUPERVISION?

- There is little doubt that for a small transition or developing country—or indeed an economy with a small financial sector—the economies of scale argument for establishing an integrated agency is a strong one that outweighs the costs associated with a move to such a model.
- In a financial sector dominated by banks, with little role for the capital markets or a highly integrated financial sector, there is also a strong case for an integrated approach.
- Countries not falling under the above two categories must weigh up the pros and cons of moving to the integrated model in the context of their own institutional settings.

HOW SHOULD AN INTEGRATED AGENCY BE STRUCTURED, ORGANIZED AND MANAGED?

- There is no one obviously correct organizational structure for integrated regulatory agencies. Existing agencies are still experimenting with

a variety of forms in an attempt to realize the synergies that integrated supervision should theoretically generate.

- An institutionally based structure has the virtue of simplicity and can be relatively quickly implemented. However, it tends to preserve the cultures and identities of the predecessor agencies to a greater extent than is optimal.
- Realizing the benefits of integrated supervision requires active management, both during the change process itself and subsequently to build a distinctive agency identity and culture.

HOW SHOULD THE INTEGRATION PROCESS ITSELF BE MANAGED?

- Making the decision to move to an integrated agency is just the beginning of the process. The more difficult part is implementation itself. This should be carefully and sensitively managed.
- The Northern European experience suggests that once the decision has been made to integrate, the implementation phase should be made as short as possible.
- Once the merger is completed a well-conceived “change management” process should be put in place aimed at overcoming the cultural barriers associated with the previous fragmented structure.

Future Research

The review of the Northern European experience has inevitably raised a number of additional areas for future work in this field. Specifically:

- Additional work on the legal framework for integrated agencies including possibly the development of a model law governing integrated agencies for small countries or those with small financial systems;
- A more extensive cataloguing of experience in the implementation of the integrated model drawing on a wider set of countries outside Northern Europe;
- More detailed consideration of the types of governance and funding arrangements that might be appropriate for integrated agencies in a specifically transition or developing country context;

- Further consideration of the most appropriate relationship between an integrated agency and the central bank, especially with regard to crisis management arrangements; and
- Future reviews of the progress being made by existing integrated agencies in addressing some of the outstanding managerial and organizational issues, especially focusing on the extent to which their approaches may be of more general application.

Integrated financial services' supervisory authorities would appear to be an attractive option for many small countries or countries with small, rapidly evolving financial sectors. However, it is clear that the decision on whether or not to integrate should be taken after full consideration of the circumstances of each individual country. As with any policy option, there are disadvantages as well as advantages to the IFSSA approach. If, on balance, the advantages outweigh the disadvantages for a particular country then the change management process will become especially important. Only with a strong, active change management process can the undoubted benefits of an IFSSA be realized.

Endnotes

¹ An important issue in deciding to adopt a unified supervisory agency is to consider whether it should be concerned exclusively with prudential (i.e., safety & soundness) regulation, or whether it should also have responsibility for conduct of business matters. This debate lies beyond the scope of this paper, although it should be noted that only the United Kingdom, of the countries surveyed, has created a unified regulator with both prudential and conduct of business responsibilities.

² There has been virtually no academic work undertaken on this topic in the United States or Germany where there are several regulatory agencies and where the federal structure implies the regional delegation of supervision to some extent.

³ Unfortunately, this report has not been translated from the Norwegian.

⁴ It is to be noted, however, that the Norwegian Kredittilsynet has uniquely pioneered an approach to insurance company supervision under which companies are required to meet both the traditional solvency margin test and also to meet the risk assets ratio test normally applied to banks.

⁵ Home Income Plans permitted their, mainly elderly, clients to swap equity in the family home for current income. Some of these plans were premised on opti-

mistic investment returns that would permit the purchasers both to service the equity-releasing loan and to enjoy significant income in excess of this obligation. In the event, many investments failed to make returns that were adequate even to service the debt obligations.

⁶ The numbers of regulatory staff employed in Denmark, Norway, and Sweden have continued to rise throughout the 1990s. However, the functions of the regulatory agencies themselves have expanded during this period—for example as the result of the acquisition of new responsibilities. This makes it difficult to draw any meaningful comparisons of regulatory efficiency over time.

⁷ Readers interested in issues of change management in integrated agencies should refer also to the more generic literature on mergers and change management.

⁸ For example, in Sweden in 1995, 13 commercial banks accounted for 92% of the deposit market and 32% of the loan market; in Finland, 7 institutions accounted for 64% and 70% of these markets respectively.

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Strengthening the Financial System: Lessons from the Chilean Experience

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Introduction

Financial system fragility can affect the overall performance of the economy in several ways. First, it introduces microeconomic inefficiencies in the intermediation process between savings and investment and consequently limits economic growth. Second, it may affect the proper functioning of the payments system, thereby increasing transaction costs and reducing the overall productivity of capital. And finally it may be an important factor in generating and/or deepening macroeconomic crisis. On the other hand, inappropriate macroeconomic policies can significantly weaken the functioning and the efficiency of the financial system contributing to its fragility, which in turn may affect macroeconomic equilibrium by creating uncertainty, lowering output and reducing welfare.

In Latin America the liberalization of financial markets (including bank credit and interest rates) has been a key component of structural reform since the mid-1970s. Recently, in some of the more developed countries of the region, pension funds, insurance companies, security markets, and stock exchanges have become important to financial sector development as well.

The first section will summarize the main lessons of macroeconomic policy impact on the banking systems in Latin America in terms of their strength and efficiency. The next section will focus on the role of banking regulation and supervision in emerging market economies, deriving its main lessons from the Chilean financial liberalization reforms of the 1970s and the banking crisis of the early 1980s. Section III looks at the current issues for banking regulation and supervision while the final section draws out what the author sees as future challenges for financial regulators based on Chile's recent experience.

I. Impact of Macroeconomic Policy—Lessons from Latin America

Latin American countries are more prone to macroeconomic fluctuations and volatility because their output and export structures tend to lack product and market diversity and there is a high dependency on foreign savings. Fluctuations and volatility may be attributed to terms of trade shocks and changes in international interest rates, especially in highly indebted countries. Another cause is international liquidity constraints and/or “excessive” short-term capital inflows, (depending on a country’s creditworthiness). A fourth contributing factor is the “stop and go” domestic macroeconomic policies, which historically have tended to exacerbate the booms and busts of economic cycles. And a final cause is the high variability of key macroeconomics prices, such as the exchange rate, domestic interest rates and asset prices. With respect to these issues, the following section draws on the experiences of Latin America to suggest where policies should focus.

Macroeconomic Instability

Macroeconomic instability correlates positively with higher vulnerability of bank debtors and with inappropriate and erroneous risk evaluation by the financial sector, and, consequently, with banking system fragility. Furthermore, the impact of the excessively expansive and/or contractive phase of the cycle (especially if it is not anticipated), is not symmetric regarding the vulnerability of the financial sector. What occurs in practice is that banks tend to get stuck with bad loans in the downward part of the cycle, while credit standards decline on the part of individual banks in the presence of “excessive credit growth,” which tends to occur during the expansive phase of the cycle. Therefore, macroeconomic policy should concentrate on the achievement of internal equilibrium in a stable, sustainable and credible way, by exercising preemptive action and adequate coordination of fiscal, monetary, exchange rate, and wage policies.

Timing, Sequencing, and Intensity of Liberalization Reforms

Together with overall appropriate aggregate demand policies, caution and wise judgment are required, especially, although not exclusively, during the transition period in countries undergoing significant reforms—i.e., from “repressed” to “liberalized” economies. Speed, timing, intensity, and sequencing of price liberalization together with tax, trade, financial, and social security reforms, as well as the opening of the

capital account of the balance of payments, may make a huge difference in the evolution of key macro prices.

Particular care should be taken when interest rates, exchange rates and asset prices tend to behave as outliers for a prolonged period of time, in the sense of being divorced from their fundamentals or long-term equilibrium values. Not only is this the case because of the macro-economic implications, but also because wide fluctuations of relative prices transform dynamic and profitable sectors into problem sectors in short periods of time, and vice versa. Since banks usually share the losses but not the windfalls with their clients, defaults increase on average with the presence of unsustainable values of key macro prices in the economy. In synthesis, the changes and required adjustment of those key macro prices may affect debtors' capacity to service their debt. And reforms could result in a banking crisis within a financial sector that is less open and more repressed than before reforms started.

Effectiveness of Monetary Policy

Macroeconomic policy and especially monetary policy may be extremely ineffective when some of these key prices are out of line. Although real interest rates should be positive, special care should be taken when they reach absurdly high levels over a substantial period of time. There are a number of cases where no action was taken by the authorities because it was argued high interest rates were "market determined." However, if interest rates are much higher than any reasonable rate of return in the non-financial sectors of the economy (which are the main debtors of the banks) the situation usually reflects some hidden major policy mistake and develops into a financial sector crisis.

Under these conditions, monetary policy, which is designed to be contractionary, is in fact not. This is because high real rates of interest tend to be ineffective in moderating excessive spending. In fact, these rates are not binding on bank debtors' behavior, given that borrowers expect to defer indefinitely the effective payment of these interest rates (rollover of loans) and/or expect to have their debt bailed out. Under these conditions extremely high interest rates do not contribute to rationing credit effectively and banks do not play their proper role in the transmission of monetary policy. What happens is that the budget constraint is not operative and therefore excessive spending takes place in spite of (and even because of) the presence of extremely high real interest rates, thus deteriorating at the same time both macroeconomic conditions as well as the quality of banks' loan portfolios.

Danger of Financial Liberalization and Very High Real Interest Rates

Capital account opening up and domestic financial liberalization stimulate credit growth and foreign indebtedness, increasing a country's vulnerability because of dependency on external savings. If these reforms coincide with the expansive phase of the cycle, problems related to excessive credit growth, deteriorating quality of bank loans, and over-indebtedness tend to amplify.

These problems are exacerbated when financial reforms go hand in hand with very high domestic real interest rates and appreciated domestic currencies. In a case such as this, which has been quite common, perverse incentives predominate in the working of the financial system. Loan portfolio tends to concentrate in the non-tradable sector and adverse selection tends to be the norm. Also, rollover of non-performing loans of over indebted agents increases, so as not to recognize losses. Furthermore, a bubble of mainly non-tradable asset prices tends to appear, which not only simulates further credit growth and spending (the latter because of a wealth effect) but also distorts the appropriate valuation of collateral in the bank lending process, thus increasing financial fragility.

In addition, given the need for liquidity, bank competition for deposits tends to increase interest rates even further. This process increases the risk of bank portfolios, when depositors are making little- or no-risk return considerations if (as is usually the case) explicit or implicit deposit insurance and/or guarantees exist. This risky behavior tends to be aggravated when there is a low level of bank capitalization, generating the well-known "agency problem," where the bank no longer defends the interest of its depositors, becoming an agent of some (usually related to the bank shareholders) borrowers.

High Internal Savings Rates

A more structural aspect relates to the role of high domestic savings in developing economies which allows for sustainable financing of investment, strengthens the domestic financial sector, and makes the economy less vulnerable to foreign shocks. Recent experience suggests that the most successful cases of high internal savings rates in some Latin American countries can be explained by the following factors: high and sustained economic growth; stable macroeconomic environment; deep, competitive and well-regulated domestic financial markets; pension fund schemes based on individual capitalization accounts; tax structures that provide incentives for corporate savings and penalties for consumption spending; and high public (including Central Bank) savings. In this respect, public saving plays a major role, especially in the process of financial liberalization, when typically private saving tends to fall.

Current Account Equilibrium

Experience suggests that policymakers should be aware that the current account of the balance of payments matters, i.e., the importance of achieving external equilibrium. This is especially relevant if a country has large gross foreign financial requirements due to huge current account deficits together with insufficient international reserves and/or a high stock of short-term foreign debt. But special care should be taken if a country faces significant short-term "voluntary" foreign financial inflows. Experience indicates that when faced with such inflows authorities are "tempted" to rationalize the existence and persistence of large current account deficits on the ground that those deficits are not being "originated" in excessive (public) domestic spending, but rather reflect a "healthy" economy with plenty of profitable investment projects.

However, on many occasions emerging market economies with high domestic interest rates have managed to attract significant external short-term capital inflows (the majority of which are usually intermediated by the domestic banking system), especially if foreign creditors do not have a proper evaluation of country risk and/or exchange rate risk. Under these conditions excessive domestic spending is not eliminated, putting pressure on the (temporary) appreciation of the domestic currency. This in turn increases the size of the current account deficit, while at the same time domestic bankers tend to relax their credit standards, thus deteriorating the quality of their loan portfolio.

Gradual Financial Sector Liberalization

When facing the above-mentioned conditions countries should consider a strategy of a gradual domestic financial sector liberalization as well as a gradual opening-up of the capital account of the balance of payments. If reforms are poorly designed in terms of pacing or sequencing, they may generate significant distortions during the transition from a repressed to a liberalized situation. The right speed at which to liberalize the domestic financial sector relative to the foreign financial sector and/or the right sequence in which to open trade and the capital account are not the same in every country under different initial conditions. Additionally, the speed of domestic financial reform should be a function of how profound the adjustment and stabilization policies have been, i.e., the degree of macroeconomic equilibrium that has been achieved, as well as of the effective capacity of the supervisory and regulatory authorities of the financial system.

II. Banking Regulation and Supervision— Lessons from Chile

Chilean Financial Sector Crisis of 1982–83

By the end of 1973, almost 85 percent of Chile's banking sector was State-owned, with government control of an overwhelming share of total credit. "Financial repression" (quantitative and selective credit control and negative real interest rates) was the norm at that time. After the military coup of September 1973, major banking reforms were undertaken. First, financial liberalization of credit and interest rates, and related measures concerning reserve requirements and a broader funding base and access to foreign capital, took place. Second, organizational measures were implemented aimed at banking privatization and at making the system more competitive. Privatization and liberalization proceeded swiftly. However, a solvency crisis of unexpected magnitude erupted in 1981. Most Latin American countries suffered a major economic crisis at that time and Chile was no exception. A significant recession took place in 1982 and 1983, with GDP falling by almost 17 percent and unemployment climbing to nearly 30 percent. There have been many studies on the Chilean economic crisis of the early 1980s and all of them concur that it had two main causes: macroeconomic policy mistakes and widespread failure of prudential regulation and supervision.

Privatization Did Not Disperse Ownership

Regarding prudential regulation and supervision, little care was taken during the first round of banking privatization (1975–76) to disperse ownership. A few groups, with very little own capital and mainly through (foreign and domestic) indebtedness, were able to control large volumes of bank assets. The fact that the regulatory body at that time did not require adequate conditions to access bank property implied that many newcomers to the banking industry did not meet the appropriate requirements. In that context problems arose given the relatively weak supervisory and regulatory capacity of the authorities while at the same time the general public behaved as if there were an explicit and/or implicit deposit insurance scheme.

Inadequate Regulatory and Supervisory Framework

But in addition to problems related to privatization, another major problem was that an adequate regulatory and supervisory framework did not

accompany banking liberalization. Traditional bank management and regulators and supervisors were not aware of the implications of financial sector reform on their behavior. Special consideration should have been given to the fact that in a liberalized and competitive scenario there is a crucial need for banks to perform serious, responsible, and professional risk evaluation.

In practice, banks were mostly left on their own. However, there was implicit (although not explicit) deposit insurance thus presenting the classical moral hazard dilemma—with no adequate regulation and supervision. In addition, the public perceived that that big banks would not be allowed to fail. Not enough care was taken with respect to what became a major banking (and at the end, a macroeconomic) problem: inadequate follow-up on the quality of bank loans. And more specifically, there was inadequate follow-up on non-performing loans and on related parties' lending (this refers to credit given to firms owned directly or indirectly by bank shareholders, directors and managers and/or to persons related to them). A basic flaw in this particular area was the absence of consolidated financial supervision, a situation still present in current Chilean banking legislation.

Another clear indicator of the lack of prudential regulation and supervision in the Chilean banking sector in the 1970s is the fact that in the two largest private banks, 21 percent and 50 percent respectively of total loans were credits to related parties. This inadequacy is corroborated by the fact that non-performing loans were simply rolled over by capitalizing accrued interest payments, without adequate provisions, and by the huge increase in bank (deposits and loan) real interest rates, with the consequent increase in overall bank risk. The latter indicates the undesirable implications of the banks' need for liquidity and is evidence that depositors played no role in disciplining the market. On the contrary both distress borrowing as well as moral hazard prevailed.

In short, essential aspects of credit process supervision and regulation were at fault particularly with regard to guarantees or collateral (usually overvalued) as a second source of loan repayment, limits on individual credit to avoid risk concentration, and the handling of high-risk overdue loans. And finally, the Banking Law was not clear about how to deal with failing institutions. This meant that in practice the State intervened and ended up bailing out not only depositors but also foreign creditors.

High Cost of Government Bailout

The government faced the 1982–83 crisis by implementing several programs (mainly through the Central Bank which was not independent at that time), aimed at rescuing banks. For instance, it protected depositors

and the payments system and bailed out most of the foreign creditors. Bad loans sold to the Central Bank were equivalent to 28 percent of the outstanding loan portfolio, 18 percent of GDP and over three times banks' capital. Taking into account interest rate and exchange rate subsidies involved in large-scale bank debt reprogramming, the estimated financial losses to the Central Bank were around 40 percent of GDP.

Between 1981 and 1983 the State took over and/or closed 20 banks and finance houses, almost the whole of the Chilean private financial system. Most of the banks that had been privatized in 1975 and 1976 came back under State control in the early 1980s. In fact, during this period the State became the leading player in the credit market, controlling more than 50 percent of total bank lending. However, that outcome was contrary to the authorities' objectives and philosophy so they decided, not only to again privatize the banking system (in a radically different way than had been done in the mid-1970s), but to also drastically change the Banking Law.

After the crisis, the orientation of the 1986 Chilean bank reform was shifted toward prudential and preventive regulatory and supervisory frameworks. Then in 1997, a new Banking Law aimed to widen the banking sector scope of activities (mainly abroad) and strengthen the banks' capital base. The new law incorporates extensions and modernizations of the 1986 legislation in light of recent developments in world financial markets, but retains the main elements of the 1986 banking legislation.

Chilean experience and legislation indicates that financial sector liberalization can strongly contribute to savings and investment in a solvent, stable, sustainable, and efficient manner, but that it requires two main conditions. The first is appropriate macroeconomic policy design and implementation. The second is the establishment of an adequate regulatory and supervisory framework, a policy challenge that remains at the top of the agenda for most emerging market economies.

III. Current Issues for Banking Regulation and Supervision

Chile's successful economic and financial sector development of the last 14 years suggests that banking regulation and supervision should concentrate on the following issues:

- a) *Institutional development of banking supervision.* This requires a high degree of political independence, highly qualified personnel, resources, and training programs. There is a concrete need for a strong supervisory authority endowed with legal and financial autonomy,

capable of basing its activities on technical criteria and of fending off political interests (from the Government, Parliament, or political parties) and pressure groups.

Some of the main functions and responsibilities of the Superintendencia de Bancos e Instituciones Financieras (SBIF), an independent Chilean government agency, include:

- Granting new banking licenses;
 - Enforcing legal and regulatory requirements;
 - Imposing fines and/or sanctions when a bank does not comply with legal and/or regulatory requirements;
 - Approving amendment to a bank's by-laws;
 - Approving a bank's proposal to increase its capital;
 - Approving a bank's proposal to enter into one or more new authorized businesses;
 - Approving a bank's proposal to open branches or representatives offices in other countries, establish foreign subsidiaries, or acquire an equity participation in a foreign bank;;
 - Approving when a person or group wants to acquire 10 percent or more of a bank's stock;
 - Requesting extensive information regarding a bank's financial condition and operations, including, but not limited to, monthly (unaudited) and annual (audited) financial statements; and
 - Examining periodically and randomly all banks in the system, including an evaluation of their credit management process and compliance with loan classification guidelines and an annual evaluation of their solvency and management practices.
- b) *Preventive and prudential approach aimed at anticipating problems.* Evaluation and taking of appropriate corrective measures of problems before they actually appear.
- c) *Strict entry conditions to the banking activity.* Fairly high minimum entry capital and appropriate standards for main shareholders, directors,

and the head manager of the bank are required. A major challenge then is to ensure those bank owners and managers have the skills, prudence, and ethics required for sound and safe banking.

- d) *Risk taking compatible with high leverage ratios.* Ample loan and financial investment portfolio diversification so as to control risks arising from funds concentration in economic agents, sectors and in financial instruments. To ensure prudent lending practices Chilean banking regulation establishes several lending limits with which banks must comply. These lending limits seek to: (1) avoid credit concentration in one single economic group; (2) limit banks' exposure in certain types of lending, such as construction loans and mortgage loans; (3) avoid excessive exposure to the credit risk of other Chilean financial institutions; and (4) limit the dangers associated with related party lending.
- The most important lending limits applicable to Chilean banks are the following:
 - Written norms required on loans and collaterals so as to control individual credit risks, particularly of “related” loans. In particular, a bank cannot grant unsecured (secured) loans to any single economic group in an amount that exceeds 5 percent (25 percent) of the bank's capital. Also, a bank cannot grant loans to any director, manager, or any other person who has the power to act on behalf of the bank. Additionally, a bank cannot grant loans to any company or entity that is directly or indirectly related to its owners or management under terms that are more favorable than those generally offered to non-related parties.
 - A bank cannot grant a construction loan in an amount that exceeds 80 percent of the estimated cost of the project.
 - A bank cannot grant a residential mortgage loan in an amount that exceeds 75 percent of the purchase price or appraisal value of the housing unit.
 - A bank cannot grant loans to other Chilean financial institutions in amounts that exceed 30 percent of the bank's capital.
 - The SBIF also controls risks related to off-balance sheet transactions.
 - There are limits on active-passive funds with maturity mismatching according to their time profile, so as to control interest rate risks.
 - There are limits on fixed or immobilized assets and requirements of liquid financial instruments, to control liquidity risks.

- There are limits on active-passive funds with currency mismatching according to their currency denomination, so as to control exchange rate risks.
 - Regarding the last three classes of limits, special consideration should be given to the way in which regulators consider the match between banks assets and liabilities. For example, regarding foreign currency mismatch, a common mistake is not to analyze the characteristics of the economic agents indebted to the banking system in foreign currency. For instance, regulators may feel comfortable with the fact that there tends to be a reasonable balance between banks' assets and liabilities denominated in foreign currency, but they may be missing a crucial point: the exposure of banks' debtors to a change in the exchange rate.
 - In other words, if bank loans in foreign currency are concentrated, for example, in debtors of the non-tradable sector, and a big exchange rate change takes place, the value of those loans should be downgraded. The reason is that the debt service capacity of those debtors is reduced when the domestic currency depreciates. So even though banks' assets may be matched with banks' liabilities in terms of foreign currency, debtors indebted in foreign currency may be unable to absorb big exchange rate fluctuations. In summary, an exchange rate change may increase the debt burden and the risk of financial instability in spite of the fact that there may be a match between bank assets and liabilities in foreign currency. Thus regulators must be extremely cautious, exercising judgement in evaluating risk and not limiting themselves to a simple kind of accounting analysis.
- e) *Full recognition of measured risks or expected losses in asset portfolio.*
- Accurate measurement of risks or expected losses in asset portfolio.
 - In addition to the usual asset quality ratios, such as the "past due loan to total loan ratio" and "non-performing loan to total loan ratio," Chilean regulators use the bank risk index as a key measure to monitor asset quality and determine the minimum amount of loan loss reserves required. For the purpose of calculating the risk index all banks classify their loan portfolio on a monthly basis following pre-established loan classification guidelines. Banks' loan portfolio is divided into residential mortgage loans and consumer loans—100 percent of which have to be classified—and commercial loans, of which banks are required to classify the greater of 75

percent of the bank's entire commercial loan portfolio or all loans to the bank's 400 largest commercial borrowers.

- Full risk provisioning or buildup of reserves, out of profit.
- Suspension of interest accruals on very risky loans.

f) *Solid capital base and capitalization requirements.*

- Speedy replacement of capital losses.
- Minimum capital requirements according to the risks of different assets.

Consideration should be given to adapt in a more strict and demanding way agreed minimum capital requirement standards, such as those of the Basel Committee on Banking Supervision, to compensate for higher macroeconomic vulnerability, higher risks, and poorer supervision in emerging market economies. Furthermore, individual asset risk criteria should be complemented with exchange and interest rate risks when defining the appropriate capital requirements for these countries' banks.

Chile applies the standard Basel-type asset-based risk-weighted capitalization requirements. However, banks whose ratio is greater than 10 percent have priority and accelerated approval for getting involved in new businesses and expanding overseas.

g) *Establishment of explicit State guarantees on a limited amount of non-interest-bearing sight deposits and small-scale savings, with a view to encourage the market-disciplining role of depositors.*

The Chilean Government guarantees up to 90 percent of the principal amount of certain deposits held by individuals at Chilean banks, limited to a maximum of about US\$ 4000 per person per calendar year, and intends to cover only very small-scale retail depositors.

The Central Bank guarantees 100 percent of demand deposits, requiring 100 percent marginal liquidity coefficients in those cases where demand deposits exceed 2 1/2 times the bank's capital. And banks are not allowed to pay interest on demand deposits.

In more general terms, Chilean banks must comply with minimum liquidity requirements: 9 percent on demand deposits and other deposits that can be withdrawn in a period of less than 30 days, and 3.6 percent on all time deposits with terms of more than 30 days but less than one year.

h) *Transparency of bank solvency to depositors and the public, aimed at strengthening internal regulation by bank owners and managers.*

- Periodic evaluation and information of banks' credit management process and compliance with loan classification guidelines.
- Annual evaluation on banks' management practices and on their solvency position, including measured risks in their assets, amounts of provisions or reserves to cover expected losses, and effective capital.
- Adequate incentives so that markets' signals will increasingly contribute to the monitoring of banks.
- Transparency in the functioning of the financial system, through appropriate financial accounting and disclosure.
- Strengthening the working and scope of private agents, such as external auditors and rating agencies, while at the same time making them more accountable to bank supervisors.

i) *Orderly exit from the banking system.*

- Orderly liquidation of insolvent banks.
- Clear rules on preferential payment of certain deposits and obligations, such as checking accounts, small-scale savings, and Central Bank credits.

IV. Future Challenges

Finally, more recent developments in the Chilean financial system indicate that the following challenges should be addressed in the very near future:

- a) Carefully balance the benefits of domestic banking internationalization, which tends to diversify portfolio risk, with proper and adequate domestic regulation and supervision capacity. Although it is true that the risks of banking are greater in small economies than in economies where there are more opportunities to diversify those risks, many small and not so small economies lack the capacity required to oversee bank lending or investment abroad. And those markets may have a higher country risk, contagion risk, and arbitrage risk, in addition to a different sort of regulation and supervision.

The fact that obtaining information is usually more costly in other countries, the differences in national accounting practices and the eventual inconsistencies among countries' banking laws, supervision and regulations, suggests that the increase in the scope of international banking activities should proceed in a gradual and prudential way. Information sharing and coordination among national supervisory agencies should be a necessary condition in the initial stage of domestic banking internationalization. If this is not the case, banking activities outside the home country may end up increasing rather than reducing banks' overall portfolio risk.

- b) Consolidating supervision is another major challenge for countries where conglomerates exist or are being created "de facto," and where banking and financial operations are just one of their economic activities. This is particularly relevant when these conglomerates look for opportunities abroad, in terms of acquiring real and financial assets and/or, in the case of banks, also lending abroad.
- c) Avoid contagion effects and the intermediation of low-risk emerging market countries as a vehicle to increased exposure by third parties in higher-risk developing countries. This situation may offer attractive arbitrage opportunities, but at the eventual cost of triggering in the first countries explicit or implicit government or Central Bank guarantees, and should therefore be avoided.
- d) Countries where financial reforms and banking legislation are relatively advanced and where non-bank financial intermediaries, typically pension funds, have acquired an important dynamism and play a key role in the capital market face an important challenge. It is to achieve consistency regarding the norms, regulation, and supervision that relate to different financial intermediaries. In other words, the process of disintermediation requires gradually adapting financial legislation and supervision. This adaptation should be oriented toward strengthening the institutional set-up of regulatory and supervisory agencies, as well as their "inter" coordination. This is necessary so as to incorporate changes as they appear and deepen the modernization, efficiency, and contribution of the overall financial system (and not only banks) to the ongoing process of saving and investment.
- e) Another major challenge for regulatory and supervisory agencies relates to the capacity to evaluate the risk involved in the rapid development of new financial techniques and instruments.

The Role of a Central Bank in Preventing Financial Crisis

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Introduction

This paper starts with an overview of the Bank of Finland's responsibilities and then provides the general framework of financial stability analysis as it is conducted at the Bank of Finland. The next two sections present more detail on macroprudential analysis and oversight of payment and settlement systems. The last section contains some concluding remarks about the importance of cooperation and coordination between the Bank of Finland, the Ministry of Finance, and the Financial Supervisory Authority.

I. Bank of Finland's Responsibilities

The Bank of Finland's statutory duties include participation in the maintenance of the stability and efficiency of the financial system as well as in its development. This mandate is considered to apply particularly to payment and settlement systems but also more generally to the overall stability of the system. Moreover, as a member of the European System of Central Banks (ESCB), the Bank of Finland is obliged to promote the smooth operation of payment systems and to contribute to the stability of the financial system. The Bank's role in maintaining financial stability is described in more detail in appendix 1.

Finland experienced a severe banking crisis in the first half of the 1990s. The economic recession was also very severe, with real GDP declining by about 13 percent in 1991–93. The cost of the banking crisis to the government is estimated at about 7 percent of GDP. The capacity of the banking sector, as measured by banks' personnel and branches, has been reduced by about 50 percent. Today, however, the crisis is history and Finnish banks' solvency, profitability, and efficiency are very good by international standards.

Before the crisis, the Bank paid little attention to the banking sector, particularly with respect to financial stability, as the banking sector had been stable since the economic recession and banking problems of the 1930s. Analyses of the banking sector usually focused on monetary policy.

However, after the liberalization of financial markets in the latter half of the 1980s, the Bank of Finland established a financial markets department and a risk monitoring department, which were merged later in the 1990s.

During the banking crisis, one of the means by which the Bank upgraded its crisis management was to greatly enhance its banking analysis activities, particularly in the areas of banking sector forecasting, surveillance, and structural analysis. Gradually, payment and settlement systems became increasingly important, especially after the establishment of the BoF-RTGS in 1991. This is one of the oldest RTGS systems in Europe. The work of the CPSS committee, under the aegis of the BIS, further supported this type of analysis.

Global linkages of financial sector issues have widened and intensified enormously during the 1990s. As a member of the ESCB, the Bank of Finland is participating fully in the work of various ESCB committees. Three committees are involved in the issue of financial market stability: the banking supervision committee (BSC), the international relations committee (IRC), and the payment and settlement systems committee (PSSC). The Bank of Finland also participates in certain EU committees such as the EFC and BAC. The OECD's financial market committee (CMF) takes a global view on financial sector issues. The Bank also closely follows the work done by the various Basel committees. But since Finland is not a G10 country, it participates only occasionally in the meetings, when invited. The Bank is responsible for IMF work in Finland, which has become increasingly important in recent years. The finance minister is responsible for World Bank contacts, but the Bank of Finland also follows that work.

At the Bank of Finland, the Financial Markets Department is responsible for financial market stability issues, and the Payment Systems Department is responsible for the operations of the BoF-RTGS and Target systems. These two departments work in close cooperation. The Financial Supervisory Authority (FSA) is administratively associated with the Bank of Finland but is independent in policy matters and has its own board. The FSA is responsible for supervision of financial institutions in Finland, whereas the Bank of Finland oversees the financial markets.

II. Financial Stability Analysis at the Bank of Finland

This section presents a brief outline of financial stability analysis at the Bank of Finland and includes three parts:

1. Material submitted for discussion by the Bank of Finland's Board

These discussions are held twice yearly, in May and November. Papers distributed for the discussion deal with the following topics:

- *Assessment of financial stability.* This is a qualitative assessment of the whole Finnish financial system. It covers the banking sector, securities markets, and payment and settlement systems. Both stability and efficiency issues are analyzed as well as policies for improving stability. The analysis is based partly on information obtained from the FSA.
- *Banking sector forecast.* Forecasts are done on developments over the next two years regarding banks' profitability, solvency, efficiency, and balance sheets (see appendix 2). The forecast is prepared jointly with the FSA and in connection with the Bank's semiannual macroeconomic forecast.
- *Review of financial market developments.* This is a statistical analysis of recent developments in the overall financial sector. A revised version of this review is under preparation, which will be more stability and efficiency oriented.

2. Publications of the basic stability analysis

- *Financial stability in Finland.* This is the Bank's official assessment of the stability of the whole financial system. It is published twice a year, in June and November, in the Bank's quarterly Bulletin. It was published for the first time in December 1998, and the most recent version is the second such published assessment. The assessment is based on the stability report presented to the Bank's board but is more limited in coverage because some of the information given to the board is secret. This publication marks an increase in the transparency of the Bank's views and policies regarding the financial sector.
- In connection with the stability article, the June issue of the Bulletin also regularly includes an article on the Finnish banking sector. This includes statistics on the latest developments in the banking sector as well as the near-term outlook.
- Other articles on financials sector developments. These usually cover a particular subsector. Past articles have dealt for example with securities markets and with payment and settlement systems.
- Other articles related to the financial sector. Topics covered have been Year 2000, collateral policy, and supervision.

3. Research work and publications

The Research Department is responsible for longer-term projects and academic research (doctoral and licentiate theses) and so-called six-month projects, which can be scientific or policy orientated. The policy departments, such as the Financial Markets Department, are responsible for short-term (two-month) projects. The Bank's board confirms the annual research program each year.

III. Macroprudential Analysis

In central bank parlance, the term "macroprudential supervision" refers to its role as overseer of systemic stability. The growing emphasis on macroprudential analysis reflects increased dependence of the economy on financial markets. Macroprudential supervision focuses on the financial system and intermediation of financing as a whole, with the aim of reducing financial fragility and systemic risk. Developments in the banking sector are crucial in this respect.

In the Bank's Financial Markets Department, the structural office is responsible for macroprudential analysis. The main components of this analysis are:

- Banking sector forecasts;
- Surveillance of financial markets;
- Structural analysis; and
- Research.

The banking forecast procedure is presented in some detail in appendix 2. Started during the banking crisis in the early 1990s, this has proven to be a most valuable tool in financial stability analysis. By nature, the forecast is forward-looking and hence it may indicate forthcoming problems, for example deteriorating profitability or solvency. It also links developments in the banking sector to those in the macroeconomy. The forecast is done twice yearly in connection with the Bank's macroeconomic forecast.

The surveillance of financial markets covers both domestic and international developments. The procedure is currently being revised so that the new surveillance report will be more stability and efficiency oriented. Indicators of stability and efficiency have been developed for the banking

sector and securities markets. Some of them will be developing new methods for financial stability analysis.

The preparation of legislation and regulations for the financial system is mainly the responsibility of the Ministry of Finance. But the Bank of Finland actively participates in the planning of new financial market legislation, normally through ministry working groups and by rendering official opinions on major legislation.

According to its statute, the ESCB is to contribute to the smooth conduct of policies pursued by the competent authorities relating to the prudential supervision of credit institutions and the stability of the financial system. In addition, the ESCB has an advisory task in regard to Community legislation. In order to carry out these tasks, the ESCB established a Banking Supervision Committee (BSC), comprising four working groups. One is responsible for EU-wide macroprudential analysis of the banking sector and another for longer-term analysis of developments in the banking field. The Bank of Finland participates in the committee and its working groups. The Bank is responsible, jointly with the FSA, for tasks connected with the committee. The analyses done so far have proven very useful, for example in providing an international framework and reference yardsticks for our own analysis.

As mentioned before, the Bank of Finland nowadays publishes much of the results from its financial stability analysis. Our purpose is to stimulate public discussion on questions related to financial market stability and efficiency. We have increased our transparency concerning these questions in the hope that awareness of stability issues will in the longer run increase the stability itself.

IV. Oversight of Payment and Settlement Systems

One of the ESCB's basic tasks is to promote the smooth operation of payment systems. This task has been interpreted to include oversight of payment and settlement systems and in industrial countries, it has been universally delegated to central banks. The main objectives of central banks in connection with oversight of payment systems are to maintain systemic stability, promote efficiency, and safeguard the transmission channel for monetary policy.

Oversight policies generally include four different tasks:

- Formulation of oversight policies;
- Enforcement of those policies;
- Ongoing activities; and

- Crisis handling.

The first two tasks include measures to prevent risks and ensure that an optimal balance is achieved between risk reduction and costs. The main approach is to enforce minimum international or domestic standards or other regulatory standards, in order to promote efficient and secure functioning of payment systems. The ongoing activities include day-to-day surveillance of the functioning of the systems. Crisis handling arises in emergency situations.

The general framework for oversight policies is formulated in the context of the ESCB, with the payment and settlement systems committee (PSSC) being responsible for the preparatory work. The Bank participates actively in the work of this committee and the national central banks are in charge of the practical oversight policies. The ECB has a central role in oversight of cross-border inter-bank fund transfer systems such as the EBA Euro Clearing System (Euro 1).

Central banks' oversight activities generally focus on large-value payment systems. The BoF-RTGS is part of the EU-wide TARGET system. In addition to this, Finland has a large-value net settlement system (POPS), which is owned by the domestic banks. The Bank of Finland requires and sees to it that POPS fulfils the Lamfalussy criteria.

Retail payment systems handle large volumes of relatively low-value payments, which entail much less systemic risk than large-value payments. However, the reliability of these payments is crucial to general confidence in payment systems. Finnish retail payment systems effect their settlements in the BoF-RTGS two times a day. The net clearing positions are sometimes very large. As part of the oversight policies, we have required that the so-called PMJ system have certain risk reducing properties. The Bank of Finland also oversees the e-money system, which is owned by the banks. The Bank of Finland and FSA cooperate actively in payment system oversight and supervision. Information exchange across these two activities is very effective.

A few years ago the Bank of Finland established a coordination and cooperation group with the Finnish Banking Association and Finnish banks. The main topics discussed in this group have been construction of the TARGET system, development of the RTGS and oversight policies. The cooperation group has continued to function since the launch of the euro.

Central banks are also greatly concerned about the soundness and safety of securities clearance and settlement because disturbances in these systems have the potential to spread to payment systems and through the whole financial sector. At the ESCB level, the requirements for implementation of the single monetary policy and the TARGET sys-

tem are additional matters of concern. The ESCB's lending operations must be based on adequate collateral. And this collateral is deposited in central securities depositories—in Finland in the Finnish Central Securities Depository.

In autumn 1997 the EMI Council set out the following standards as preconditions for the use of securities settlement systems by the ESCB in Stage Three of EMU:

- Legal soundness;
- Settlement in central bank money;
- Absence of undue custody risk;
- Regulation and/or control by competent authorities;
- Transparency of risks and conditions for system participation;
- Risk management procedures;
- Finality of intraday settlement;
- Operating hours and days; and
- Operational reliability of technical systems and availability of adequate backup facilities.

All these standards were to be met before the start of Stage Three of EMU. The only exception was the requirement for intraday delivery versus payment facilities (second part of standard 7), which has to be implemented by 1 January 2002.

The Bank of Finland made an assessment of the Finnish Central Securities Depository system in 1998, with assistance from the FSA. This assessment was part of the oversight activities of the Bank in the area of securities settlement. The links for the Finnish securities settlement system, i.e., the Finnish Central Securities Depository, are now being assessed under the aegis of the ECB. Oversight of securities settlement includes essentially the same components as payment system oversight, which were spelled out above.

One aim of securities settlement oversight is to limit the risk exposure of national central banks and the ESCB in connection with settlement of its system credit operations.¹

Concluding Remarks

It seems likely that the ESCB will have an important role in promoting the stability of the euro area financial system. It will be particularly concerned with payment and settlement systems that operate in this area. Moreover, the Banking Supervision Committee provides a forum for co-operation between central banks and banking supervisors of EU member states. The Bank of Finland participates actively in this work.

Essential harmonization of national legislation, the home-country principle, and mutual recognition of national laws and regulations are the foundations of financial market regulation within the EU. However, because financial systems will become more integrated with the euro, the maintenance of stability and soundness will inevitably require deeper and closer cooperation between the ESCB and national authorities.

In Finland, we consider cooperation and coordination between the Bank of Finland, the Ministry of Finance and the Financial Supervisory Authority as being of the utmost importance. In this respect, substantial progress has been achieved in recent years.

The Bank of Finland views improvements in the transparency of its oversight policies as crucial. Major steps have already been taken in this direction. The Bank's research output in the field of financial stability and efficiency has also been increased. With this additional output, the Bank is striving to increase analytical knowledge within the Bank and to provide input into Finnish, and to some extent international, efforts to promote the stability and efficiency of financial systems.

Appendix 1. Bank of Finland's Role in Maintaining Financial Stability

Besides their main duty—that of conducting monetary policy—central banks are often involved to varying degrees in the promotion of financial stability. This stems mainly from the fact that a stable and reliable financial system serves to facilitate the conduct of monetary policy. In addition, a stable financial system can support other economic policies as well as the overall functioning of society. The growth of financial markets has made it increasingly important to control and prevent the realization of the major risks that can lead to systemic crisis in the financial system.

As regards the Bank of Finland, its statutory domestic duties include participation in the maintenance of the stability and efficiency of the financial system as well as in its development. This mandate is considered to apply particularly to payment and settlement systems, but also more generally. Furthermore, as a member of the European System of Central Banks (ESCB), the Bank of Finland is obliged to promote the smooth operation of payment systems and to contribute to the stability of the financial system.

In Finland the preparation of legislation and regulations on the financial system is mainly the responsibility of the Ministry of Finance. The Financial Supervision Authority, which functions as an independent authority in connection with the Bank of Finland, is responsible for supervising the risks of financial market participants, such as credit institutions, investment firms, stock exchanges, and central securities depositories, as well as the legality of their operations. The scope and content of the supervision are defined in financial market legislation, e.g., in laws governing credit institutions and securities markets.

However, because of its position at the center of the payment system, the Bank of Finland automatically assumes a leading role in concluding agreements on operating principles for inter-bank payment systems. Otherwise, the Bank of Finland's role in promoting financial stability encompasses only a limited amount of regulatory power or other means of directly impinging on the operations of market participants. Instead, the Bank for the most part exerts its influence indirectly, mainly through various modes of cooperation with other authorities and financial industry representatives, through publications directed at market participants and the general public, and through research and analysis. The current article, which is the first biannual assessment of the state of the financial system, is an example of the Bank's continuing effort to increase the transparency of its operations.

Appendix 1 consists of material adapted from *The Bank of Finland Bulletin*, 12/1998, p. 13.

It seems likely that the ESCB will have an important part in promoting the stability of the euro area financial system. In this respect, it will be particularly concerned with payment and settlement systems that operate in the euro area. Moreover, the Banking Supervision Committee, which functions in connection with the European Central Bank, provides a forum, for cooperation between central banks and banking supervisors of EU member states in the field of banking supervision.

With the introduction of the euro, it will become increasingly important to achieve an efficient allocation of liquidity across the whole euro area. To ensure that this happens, the EU central banks have developed a real-time payment system called TARGET, which they will jointly adopt. In addition, the ESCB will participate in the oversight of other payment and settlement systems. This oversight will focus on the functioning of the systems themselves, in particular those systems used in monetary policy operations and in other wholesale payments, rather than on the firms that offer their services via those systems. As a legal basis for the oversight, the European Central Bank is entitled to issue regulations on payment systems and to impose sanctions as necessary. These regulations are binding in their entirety and are directly applicable throughout the euro area. The Bank of Finland will participate in oversight in cooperation with the Financial Supervision Authority, the broad guidelines for which will be drafted within the ESCB framework.

In central banks' parlance, the term "macroprudential supervision" has recently come to refer to their role as overall monitors of systemic stability. In fact, the growing emphasis on macroprudential supervision clearly reflects the increased dependence of the economy on the financial markets. Macroprudential supervision focuses on the financial system and the intermediation of financing as a whole in pursuing its objective of reducing financial fragility and preventing systemic risk. Ultimately, macroprudential supervision provides additional bases for the decision making of central banks and other authorities responsible for economic policy and prudential supervision.

Essential harmonization of national legislation, the "home-country principle" as applied to prudential supervision, and the mutual recognition of national laws and regulations are currently the foundations of financial market regulation within the EU. However, because financial markets will become more integrated in Stage Three of EMU, the maintenance of financial stability will inevitably require deeper and closer cooperation among the ESCB and national authorities of member states.

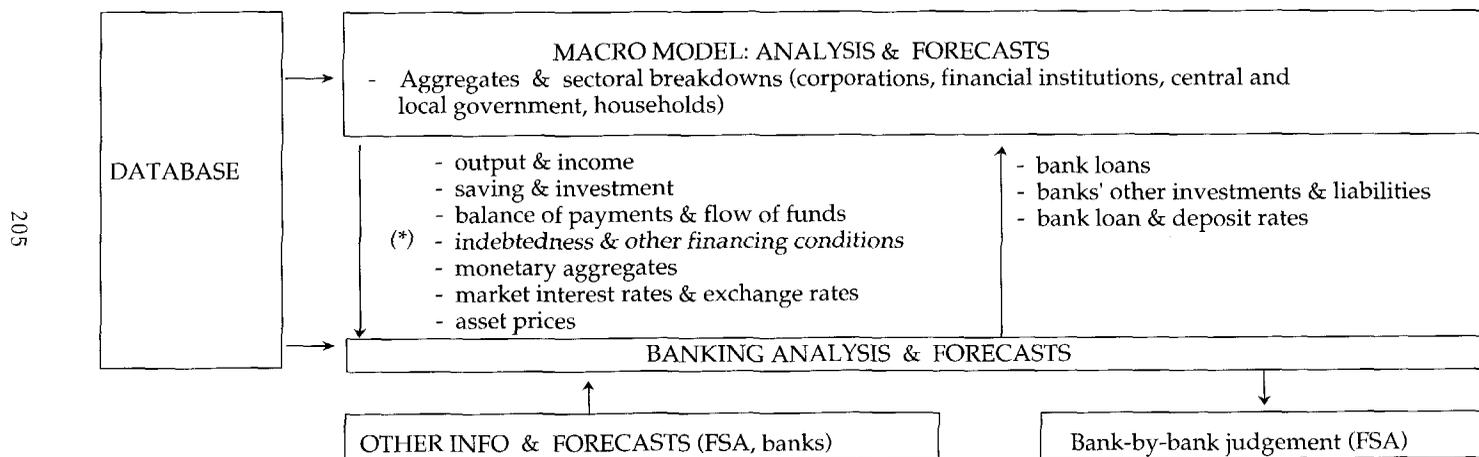
Appendix 2. Bank of Finland's Banking Forecast Process and Framework

Suomen Pankki uses, in conjunction with the relevant supervisory authority, a set of partially analytical tools, including econometric equations, primarily for the credit market. These are used to assess the impact of real and monetary macroeconomic variables on the banking system. This appendix contains diagrams illustrating Suomen Pankki's banking forecast process as an example of a method of conducting macroprudential analyses.² The analysis is carried out for a two-year forecast horizon. The banking forecast process is closely linked to the macro model of the Finnish economy. In fact, as illustrated in "Banking Process (1)," page 205, there are two-way information flows, i.e., information from the macro model is used in the banking model and vice versa. The aggregate solvency and profitability of the Finnish banking system are target variables for which forecasts are made using the sub-target variables, net interest income, other income, expenses and write-offs (see "Forecast Process (2)," page 206). "Forecast Process (3)," pages 207–209, gives a breakdown of the elements used to make forecasts for these sub-target variables. Apart from this, input from the supervisory authority is also received. At the heart of the process, there is a spreadsheet system for the banking sector's balance sheet, which collects all forecasts from the macro model and the banking model. The information collected from the banks by the Financial Supervisory Authority (P & L and balance sheet data) and Suomen Pankki (monetary statistics) provide the building blocks of the analysis. The balance sheet analysis, combined with the assessment of margin developments, leads to estimates of the most likely development in banks' net interest income. Analysis of the other income and cost components is based as far as possible on macro forecasts, but analytical contributions and information from the Financial Supervisory Authority are more important. In fact, one of the key ideas behind the process is to merge both "macro" and "micro" inputs in the analysis. In addition to the more usual forms of analysis, sensitivity analysis is carried out as regards deviations from the baseline macroeconomic forecasts.

Work discussions are held with employees from the Financial Supervisory Authority responsible for the respective analysis and data. Their feedback is essential for the finished product. The analysis is also presented for final comment to the management of both the Financial Supervisory Authority and Suomen Pankki's Financial Markets Department before the written report is distributed in the Bank (reaching top management) and the Financial Supervisory Authority.

Bank of Finland Banking Forecast Process (1): Basic Flows of Information and Forecasts

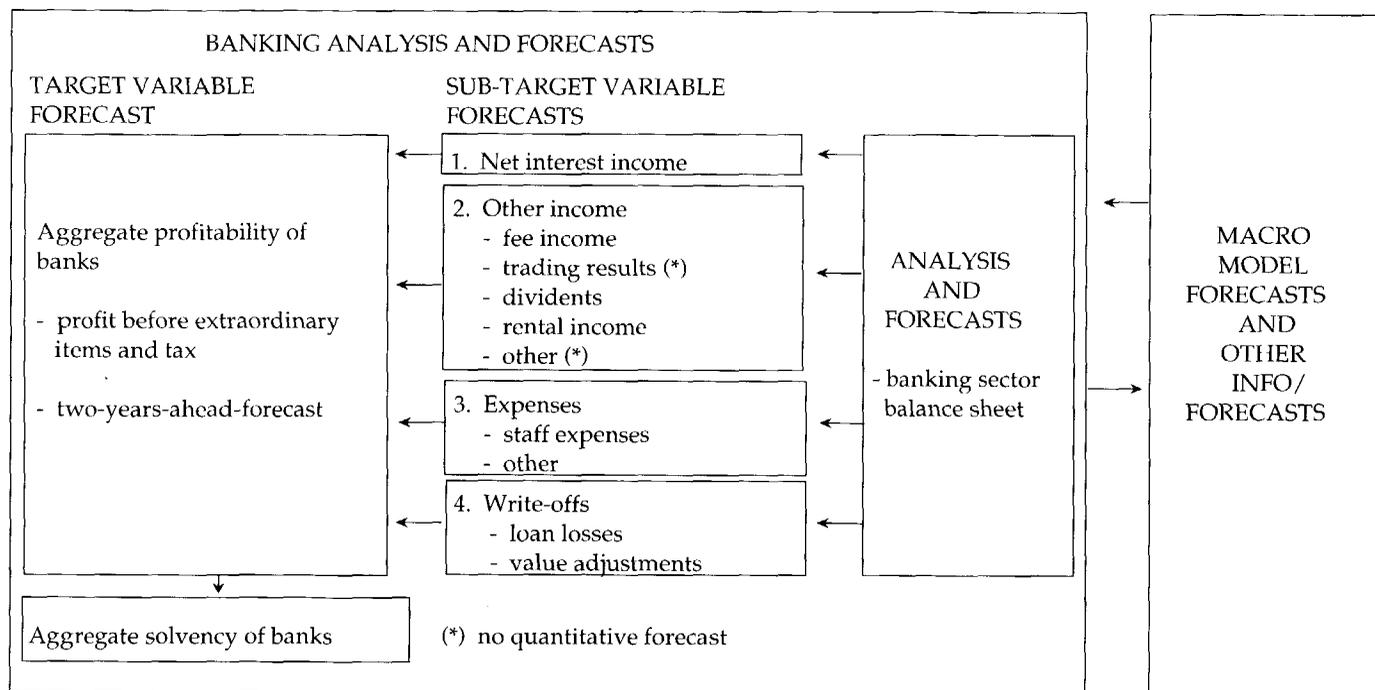
- "A satellite model" of the macro model for the Finnish economy (BoF5)
- Full consistency as regards the data base, feedbacks, and forecast outputs between the macro model and the banking model



(*) Outputs of the simultaneous macro model

Bank of Finland Banking Forecast Process (2): Target and Sub-Target Variables

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Bank of Finland Banking Forecast Process (3): Forecasts of Sub-Target Variables

<i>Banking analysis and forecasts</i>		<i>Macro model input (*)</i>	<i>Other inputs</i>
1. Banks' net interest income (d)	Household loans (e)	Disposable income (m)	
		Dwelling prices (m)	
		Unemployment (m)	
		Saving & investment (m)	
	Interest rate on new household loans (eb)	Market interest rates (m/ex) (term structure)	
	Corporate sector loans (e)	Corporate investment (m)	
		Financial surplus of corporations (profits) (m)	
	Interest rate on new corporate loans (eb)	Market interest rates (m/ex)	
	Interest rate on the loan stock by loan types (d)	Market interest rates (m/ex)	
	Loan interest margins (eb/ex)		
	Deposits by account types (d)	Monetary aggregates (m)	
	Interest rate on the deposit stock (d)	Market interest rates (m/ex)	
	Deposit interest margins (eb/ex)		
	Money market position (d)		
Non-performing assets (eb)	(see below)		

(Continued on the following page.)

Forecasts of Sub-Target Variables *(continued)*

Banking analysis and forecasts

	Other interest-bearing assets and liabilities (d)
2. Banks' other income	
2.1. Fee income (d)	(Payment flows and foreign exchange) Volume of new loans (e) (and guarantees) (Off-balance-activity) (Securities intermediation activity)
2.2. Rental income (d)	
2.3. Dividend income (d)	
3. Banks' expenses	
3.1. Staff expenses (d)	Number of employees (d) Wage development (d)
3.2. Other expenses (d)	Number of branches (d) Depreciation (d)
4. Write-offs	
4.1. Loan losses	Non-performing assets by sectors (e/d)

Macro model input ()*

Public debt (m/ex)
GDP (m) Exports (m) (see above)
Dwelling and rental prices (m)
Financial surplus of firms (m)
General wage development (m)
Disposable income of households (m) Financial surplus of firms (m) Loan servicing capability by sectors (**) (m/d)

Other inputs

Vacancy rates of banks' holdings
Banks' restructuring and other plans Structure of banks' employees Banks' restructuring and other plans

		Indebtedness by sectors (m/d)	Bankruptcies (ex)
		Market interest rates (m/ex)	
		Asset prices (m/ex)	
	Loan growth (eb)		
	Redemptions from past write-offs (ex)		(Banks' estimates)
4.2. Value adjustments (d)		Market interest rates (m/ex)	

- (*) Only key explanatory variables mentioned
- (**) (Interest income + amortizations)/income
- (e) Econometric methods used in forecasting
- (eb) Explanatory variable from the banking model
- (ex) Exogenously inputted forecast
- (d) Derived variable
- (m) Output from the simultaneous macromodel

¹ Standards for the Use of EU Securities Settlement Systems in ESCB Credit Operations, EMI, January, 1998.

² The Appendix has been prepared by Mr. Jukka Vesala for the financial fragility working group of EMI (1998).

The Rationale for a Single National Financial Services Regulator

Clive Briault

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Introduction

This paper considers the rationale for establishing a single national financial services regulator. It discusses the choice of institutional structure and concludes that, even if there is no universal ideal model, there are powerful arguments in favor of a single national financial services regulator.

The institutional structure of financial services regulation is important because of the potential impact of the efficiency and effectiveness of this regulation on the direct and indirect costs of regulation and on the success of regulation in meeting its statutory objectives. The purpose of raising these issues is not to attempt to impose the new "U.K. model of regulatory structure" on other countries, but rather to provide a framework within which they can make their own decisions according to their own individual circumstances. Furthermore, for some countries the choice of institutional structure will be a lower-order consideration when set against the importance of implementing internationally agreed principles and standards of supervision in banking, insurance, and securities.

Although the structure of financial regulation must depend in part on what is being regulated and why it is being regulated, this paper takes as given the rationale for financial services regulation as set out in Davies (1998a), Goodhart et al (1998), and Llewellyn (1999).

I. Institutional Arrangements in the United Kingdom

The Chancellor of the Exchequer, Gordon Brown, announced in May 1997 that the responsibilities for financial services regulation in the United Kingdom would be merged into a single entity. This would bring together nine regulatory bodies,¹ thereby creating the broadest financial regulator in the world. The U.K. Financial Services Authority (FSA) will combine prudential, conduct of business, and market conduct regulation across the full range of financial services, including banking, securities,

investment management, insurance, and markets and exchanges. The rationale for this consolidation was that:

“The existing arrangements for financial regulation involve a large number of regulators, each responsible for different parts of the industry. In recent years there has been a blurring of the distinctions between different kinds of financial services business: banks, building societies, investment firms, insurance companies and others. This has added further to the complexity of financial regulation. The Government believes the current system is costly, inefficient and confusing for both regulated firms and their customers. It is not delivering a standard of supervision and investor protection that the public has a right to expect. We are therefore establishing a single, statutory regulator for the U.K. financial services industry with clearly defined regulatory objectives and a single set of coherent functions and powers.” (H.M. Treasury, 1998a, page 8).

The establishment of the FSA is well under way. The former Securities and Investment Board was renamed the Financial Services Authority in October 1997, and the supervisory responsibilities of the Bank of England were transferred to the FSA in June 1998. The next stage in this reform was the publication for public consultation by the Government in July 1998 of a draft Financial Services and Markets Bill (H.M. Treasury, 1998b), which will give the FSA the powers to act as a single financial services regulator. The Bill is now being debated, scrutinized, and amended by Parliament, and, when passed by Parliament, will come into force as the Financial Services and Markets Act.²

Meanwhile, although still operating under existing legislation until the new Act is passed in June 2000, the FSA has brought together all of its staff into a single building and has introduced a single management and organizational structure. The FSA is therefore operating in effect as a single financial services regulator, even before the new legislation is enacted, supplying regulatory services back to the boards or commissions of those regulators who retain statutory responsibility until the legislation comes into force.

The Statutory Objectives of the FSA

The draft Financial Services and Markets Bill set four objectives for the FSA:

- Maintaining confidence in the financial system;
- Promoting public understanding of the financial system, including promoting awareness of the benefits and risks associated with different kinds of investment or other financial dealing;

- Securing the appropriate degree of protection for consumers, having regard to the differing degrees of risk involved in different kinds of investment or other transaction, the differing degrees of experience and expertise that different consumers may have in relation to different kinds of regulated activity, and the general principle that consumers should take responsibility for their decisions; and
- Reducing the extent to which it is possible for a business carried on by a regulated person to be used for a purpose connected with financial crime.

In addition, in discharging its general functions the FSA must have regard to: the need to use its resources in the most efficient and economic way; the responsibilities of those who manage the affairs of authorized persons; the principle that a burden or restriction that is placed on a person, or on the carrying on of a regulated activity, should be proportionate to the benefit the provision is generally intended to confer; the desirability of facilitating innovation in connection with regulated activities; the international character of financial services and markets and the desirability of maintaining the competitive position of the United Kingdom; and the principle that competition between authorized persons should not be impeded or distorted unnecessarily.

The draft Financial Services and Markets Bill also included a wide range of accountability provisions, while a joint Memorandum of Understanding sets out a clear allocation of responsibilities between the Treasury, the Bank of England, and the FSA. It provides a framework for close cooperation between the three bodies, in particular in terms of information gathering and exchange.

The International Monetary Fund has reported favorably on these new arrangements in the United Kingdom. It judges the creation of a unified financial supervisory authority to be “an appropriate response to the uneven quality of supervision and consumer protection across various financial sectors and to the increasing importance of large financial institutions operating across traditional lines of business” (International Monetary Fund 1999). It observed, however, that it will be important to maintain the close collaboration between the FSA and the Bank of England.

II. International Market Developments

Developments in Other Countries

The United Kingdom was not the first country to introduce a single financial services regulator. Finansinspektionen was created in Sweden in

July 1991 in response to actual and prospective market developments, including increasing integration both among different types of financial institutions and across borders. Similarly, Kredittilsynet in Norway (established in 1986) and Finanstilsynet in Denmark (established in 1988) supervise the banking, securities, and insurance sectors.

Japan introduced a single regulator (the Financial Supervisory Authority) covering banking, securities, and insurance in June 1998, as did Korea in April 1998 with the new Financial Supervisory Service, which was modeled explicitly on the United Kingdom's FSA. Iceland followed with the Fjármálaesfirlit in January 1999.

In July 1998 Australia introduced two cross-sectoral bodies—one for the prudential supervision of banks, insurance companies, and pension funds (the Australian Prudential Regulation Authority)—and one for the supervision of securities firms and conduct of business requirements (the Australian Securities and Investments Commission). These two bodies share a single overarching council. In 1987, the Canadian authorities merged banking and insurance regulation in the Office of the Superintendent of Financial Institutions (OSFI).

Luxembourg introduced a single regulator for banking and securities business (but not yet insurance) in January 1999. Consultation is underway in Ireland on government proposals to form a single financial services regulator. And Israel, Mexico, and South Africa are among several countries considering moves toward a single regulator.

Demise of Traditional Distinctions

Various interrelated and mutually reinforcing factors have led, in many countries, to a blurring within the financial services sector of the traditional distinctions between types of firm, products, and distribution channels. These factors include: the removal of barriers to entry; innovation and technological progress (which has had a dramatic impact on the cost of entering some markets for financial services); greater competition; and internationalization.

For financial services firms, this has resulted in an increase in the number of institutions that cut across traditional sectoral boundaries. This growth in financial conglomerates (usually defined as a group that undertakes at least two major financial services activities) is the result of a number of factors. First, mergers and acquisitions have been increasing, most frequently between banks and securities firms and between banks and insurance companies. Second, financial services firms have been extending through internal growth into new areas. For example, insurance companies setting up banks and vice versa, insurance companies selling investment products, and banks setting up securities and fund

management operations. Third, there have been a number of new entrants into the financial services sector (including Marks & Spencer, Safeway, Sainsbury, Tesco, and Virgin in the United Kingdom).

Data for early 1998, collected as the FSA was taking organizational shape, show a large number of firms with multiple authorizations from the (then) separate U.K. regulators. Eight firms (including HSBC, Halifax, Abbey National, and the Royal Bank of Scotland) were authorized to conduct all five of the main regulated activities (deposit-taking, insurance, securities and corporate finance, fund management, and advising on or selling investment products to retail customers). A further 13 firms were authorized to conduct four of these activities, and more than 50 other firms were authorized for three of these five functions. Twenty years ago, even the largest U.K. financial institutions were typically confined to just one, or at most two, of these five activities.

This increase in the number of financial conglomerates has been accompanied by a blurring of the boundaries between products. The securitization of traditional forms of credit (including mortgages, credit card outstandings, and commercial loans) and the growth of options (with its increasingly elaborate ways of unbundling, repackaging, and trading risks), have weakened the distinction between equity, debt, and loans. It has also weakened the distinction between banking and insurance business where, for example, credit derivatives bear many of the characteristics of an insurance product.

What does all this imply for the structure of financial services regulation? The disappearance of a neat conjunction between a particular type of firm and a limited range of products being supplied by that firm means that it is difficult to regulate on a functional basis, since the traditional functional approach no longer matches the structure of either firms or markets.

There is a clear need for regulatory oversight of a financial conglomerate as a whole, since there may be “risks arising within the group... that are not adequately addressed by any of the specialist prudential supervisory agencies that undertake their work on a solo basis” (Goodhart et al, 1998, page 148). Many of the threats to the solvency of the institution can be assessed adequately only on a group-wide basis. This includes the assessment not only of whether the group as a whole has adequate capital, but also of the quality of its systems and controls for managing risks, and the calibre of its senior management.

Responsibilities of Lead Regulator

The institution-wide overview of a financial conglomerate could be undertaken by a “lead” regulator appointed from among the “solo”

regulators responsible for specialized aspects of the institution. This lead regulator would be responsible for a number of functions, including: taking a consolidated view of the capital adequacy and liquidity of the institution as a whole; taking a similarly group-wide view of more qualitative factors such as the calibre of senior management and the high level systems and controls of the financial conglomerate; and coordinating and encouraging the exchange of information among the relevant regulatory bodies, both routinely and in the event of an emergency.

Most countries still follow the lead regulator approach. But, countries that have shifted to a single national financial services regulator (or at least consolidated their regulatory bodies into just two or three regulators) have generally done so in part because the need for communication, coordination, cooperation, and consistency across specialist regulatory bodies had become increasingly acute and increasingly difficult to manage efficiently. This is particularly the case with the growth in the number of multiple-function firms.

So does the same argument apply internationally? Lead regulation also needs to be—and frequently is—undertaken on a cross-border basis for the supervision of institutions with operations in more than one country. However, although this suggests that there might be a case for moving toward some form of single regulator on a cross-border basis, the argument is less strong here for two main reasons. First, a transnational regulator would have to operate across very different legal and cultural structures. Second, market developments do not yet suggest the need for a transnational financial services regulator. Even within the European Union the amount of cross-border business in financial services is relatively small and a genuinely single market in this area—especially in retail financial services—has still not emerged.

International Regulatory Cooperation Required

Padoa-Schioppa (1999) and others have argued that the development of a single banking market in Europe could eventually require a pan-European banking supervision authority, responsible at least for pan-European banks. But financial institutions may become integrated sectorally (across banking, securities, insurance, etc.) at least as rapidly as the development of their cross-border activities, thus generating the need for greater coordination and cooperation across sectors as well as borders. This might, in turn, eventually generate a stronger argument for any pan-European or other transnational financial regulator to have a broad scope across a wide range of financial activities. To date, the growth of internationally active financial services firms has been met by

a combination of increasing international and cross-sector cooperation and coordination, including through the introduction of lead regulator arrangements, and agreements on common minimum standards to be applied by all countries.

The recently established Financial Stability Forum is in part intended to move international regulatory cooperation forward from the setting of such common standards to a greater emphasis on the effective implementation of these standards. This process would be achieved in part through a process of peer review and the IMF's regular Article IV surveillance of its member countries. The Forum is also intended to improve cooperation and coordination among the key international financial services regulatory bodies (the Basel Committee on Banking Supervision, the International Organization of Securities Commissions, and the International Association of Insurance Supervisors), finance ministries, central banks, the leading national regulatory authorities and the international organizations with responsibilities for international financial stability (the International Monetary Fund, the World Bank, the Bank for International Settlements, and the Organisation for Economic Co-operation and Development). Thus the forum will be well positioned to cover both cross-border and cross-sector issues.

III. Regulatory Efficiency and Effectiveness

Scale Economies and Regulatory Resource Allocation Gains

There can be little doubt that a single national financial services regulator offers scope for significant efficiencies. In theory, at least, a single regulator ought to be able to generate a number of efficiency gains. Economies of scale and scope should be driven by the following factors:

- A single regulator can take advantage of a single set of central support services (human resources, information services, financial control, premises etc.);
- Introduce a unified statistical reporting system for regulated firms;
- Operate a single database for the authorization of firms and the approval/registration of individuals;
- Avoid unnecessary duplication or underlap across multiple specialized regulators;
- Introduce a consolidated set of rules and guidance;

- Tackle problems of coordination, cooperation, and communication more effectively within a single entity and under a unified management structure than might be possible across separate specialist entities;
- Offer a single point of contact to both regulated firms and to consumers (through a single complaints-handling regime and a single compensation scheme); and
- Adopt a more effective and focused approach to areas of common interest to most regulated financial activities (for example, handling Year 2000 issues and turbulence in international financial markets).

Such economies of scale and scope have already begun to be reflected in the costs of the FSA as a single regulator, which are budgeted to be lower in real terms in 1999/2000 than the sum of its component parts in either of the previous two years (see Financial Services Authority, 1999). And there is the prospect of further savings to come once the new legislation is in force (Davies 1998b), despite the FSA having a slightly wider scope than that of the nine regulatory bodies being brought together. Moreover, the consolidation of rules and guidance, the unification of reporting requirements and the removal of duplication and overlap across specialist regulators should reduce the costs (other than the costs of the regulator itself) imposed by regulation on regulated firms. This is of particular importance because studies have found that these "indirect" (additional compliance) costs of regulation are a multiple of the "direct" costs of paying for the regulator(s) itself (see Franks et al, 1998; Goodhart, 1988; and Lomax, 1987).

In addition to pure scale economies, a single regulator should be more efficient in the allocation of regulatory resources across both regulated firms and types of regulated activities. One crucial element of this is the development of a single system of risk-based supervision under which regulatory resources are devoted to those firms and those areas of business that pose the greatest risk when judged against the objectives of protecting consumers, maintaining market confidence (including the reduction in systemic risk) and reducing financial crime. A single regulator ought also to be best placed to resolve efficiently and effectively the conflicts that inevitably emerge between the different objectives of regulation. This is because a single management structure should be better able to identify, to decide upon and to implement a collectively agreed resolution in response to conflicts that arise.

However, Goodhart et al (1998) and Taylor (1995) argue that it may be either easier or more appropriate to resolve conflicts of interest (between different objectives or responsibilities or between different regulators) at

a political level rather than within a single regulator. But in practice governments have been slow and ineffective in resolving these types of conflict. Some of the conflicts of interest between multiple specialist regulators arise because they either do not have clear objectives and responsibilities or because these were set at different times and are inconsistent with each other. A single regulator can be given clear and consistent objectives and responsibilities, which should generate fewer conflicts in the first place, and can operate within a clear system of accountability. Thus even if all specialist regulators are focused effectively on delivering their own specific mandates, the sum of the parts need not add up to a coherent and consistent overall outcome.

Appropriate Differentiation to Meet Various Objectives

Unjustifiable differences in supervisory approaches and competitive inequalities imposed on regulated firms through inconsistent rules have arisen across multiple specialist regulators. However, this does not mean that a single regulator has to adopt a “one size fits all” approach, which might offset the internal economies available to a single regulator through the imposition of higher “indirect” costs on the industry. Different objectives and approaches can be internalized within a single regulator. It is clear from all of the material published by the U.K. Financial Services Authority that the issue of appropriate differentiation is central to its approach.

If a single regulator is given a clear set of responsibilities then it ought to be possible to increase the transparency and accountability of the regulator (Taylor 1995, Goodhart et al. 1998). This should be the case, not least, in terms of its accountability for performance against its statutory objectives, for the regulatory regime, for the costs of regulation, for its disciplinary policies, and for regulatory failures (Davies 1998b, 1999).

Although Taylor (1995, 1996) recognizes the arguments in favor of moving toward a single financial services regulator—placing particular emphasis on the emergence of financial conglomerates, the excessive fragmentation of specialist regulatory bodies, the lack of accountability across these multiple regulators and a lack of clarity in their objectives—he stops short of recommending a single national financial services regulator. This is in part because of a concern that a single regulator “could potentially become an over-mighty bully, a bureaucratic leviathan divorced from the industry it regulates” (Taylor 1995, page 15). Similar concerns were expressed by some of the respondents to the draft Financial Services and Markets Bill in the United Kingdom (H.M. Treasury 1999, pages 10–11 and 21).

Statutory Accountability Mechanisms Can Address Concerns

There is no simple way of constructing a single regulator so as to remove these concerns. But in the United Kingdom the Government has addressed them most recently by strengthening the statutory accountability mechanisms in the draft legislation and by improving the provisions in the draft legislation that govern the investigation and discipline powers of the Financial Services Authority. Meanwhile, the FSA has itself published a considerable amount of material setting out how it intends to meet its responsibilities under the proposed legislation (Financial Services Authority 1998c). It describes how it will consult widely and openly with interested parties in determining its overall approach and in formulating its standards and requirements (Financial Services Authority 1998b). And also how it will establish the internal procedures necessary to ensure that its enforcement processes are used fairly and are seen to be fair (Financial Services Authority 1998e).

Goodhart et al (1998) and Taylor (1995, 1996) both propose models of regulatory structure based primarily upon the objectives of regulation, albeit fine-tuned to take account of market developments and of the need for accountability and efficiency. Thus Taylor (1995, 1996) proposes a "twin peaks" model that "institutionalizes the distinction between the systemic protection and consumer protection objectives" and that reflects the "profound differences between the style and techniques appropriate to prudential and conduct of business regulation" (Taylor 1995, page 15). In this model, a Financial Stability Commission would be responsible for prudential supervision, while a Consumer Protection Commission would be responsible for the conduct of business between financial institutions and retail consumers (Taylor 1996, page 6).

However, the distinction between prudential and conduct of business regulation is not in practice as neat and simple as Taylor's twin peaks model might imply. Even without the emergence of financial conglomerates, a large number of financial services firms would need to be regulated by both of his proposed Commissions because their business would require both prudential and conduct of business regulation. This would certainly include life insurance companies, securities firms, and institutional fund managers, and in practice would also include the many banks and building societies who combine deposit-taking with various forms of investment business. This in turn would generate inefficiencies (firms having to be authorized and supervised by more than one regulator) and the possibility of the communication, cooperation, and consistency problems discussed earlier.

Moreover, there is considerable overlap—both conceptually and in practice—between prudential and conduct of business regulation. Both have a close and legitimate interest in the senior management and in the

systems and controls of any financial institution subject to both of these types of regulation. In particular this is because of senior management's crucial role in setting the "compliance culture" of a firm, in ensuring that management responsibilities are properly allocated and cover comprehensively the business of the firm, and in ensuring that other internal systems and controls are in place. The detail of some of these systems and controls may indeed be specific to either prudential or conduct of business considerations, but many of them will be more general.

Goodhart et al criticize the "twin peaks" model from a different perspective, claiming that the model is "too all embracing and does not recognize the significant differences between institutions and types of business with respect to both prudential and conduct of business regulation" (1998, page 159). They propose that the structure of regulation should be based on the different objectives of regulation. They suggest no fewer than six separate regulators, covering systemic risk; non-systemic prudential regulation; retail conduct of business; wholesale conduct of business; financial exchanges; and a competition authority. The rationale for this approach is superficially attractive—giving regulators clear mandates and ensuring appropriate differentiation in the regulation of different types of activity. But it does not address convincingly the risk that it would be subject to all of the problems discussed above in the context of multiple functional regulators, in particular because many firms would be subject to regulation by more than one of the proposed regulators (and some by all of them).

IV. Regulation and Central Banking

Impact on Monetary Policy—

One effect of creating a single financial services regulator is that banking regulation (as in the United Kingdom) generally is moved away from the central bank. There are a number of arguments against combining these functions:

- (i) A potential conflict of interest that might tempt a central bank to loosen its monetary policy stance (or to delay a monetary tightening). This would impart an upward bias to inflation because of concerns about the financial health of the firms (typically banks) that it regulates;
- (ii) Loss of credibility arising from perceived regulatory "failings" that could contaminate its monetary policy role; and
- (iii) Fear that as the role of a central bank widens there is a greater risk of political pressures or political control, thus potentially undermining

the independence of its monetary policy (and indeed regulatory) responsibilities.

But there may also be advantages in combining monetary policy and regulatory responsibilities in a single institution. Goodhart (1995) observes that the monetary authorities usually make the opposite mistake of taking too little account of conditions in the financial sector when setting monetary policy. A central bank that combined monetary policy and regulatory responsibilities—or at least had access to regulatory information—could therefore potentially improve its ability to undertake monetary policy. However, although there need to be close links and a proper flow of information between the relevant regulator and the monetary authorities, this does not imply that the two functions have to be combined within the same institution. In many countries they are not.

—and Systemic Risk

The other relevant aspect of the relationship between central banks and the structure of regulation relates to the question of whether banks are “special” and might therefore give rise to systemic risk. The argument runs as follows. Banks generally issue short maturity and capital-certain deposits, while much of their lending is illiquid and non-marketable. They specialize in loans whose value depends on customer-specific information that is not generally available to other lenders. Thus a bank failure might be damaging to the economy as a whole because of an adverse impact on its borrowers (who are unable to readily find alternative sources of credit) and on the smooth functioning of the payments system. There is also the potential for contagion since banks are prone to runs on deposits if their retail or wholesale depositors perceive a risk of insolvency, or even of illiquidity. A run on an otherwise solvent bank might cause it to become insolvent through the forced sale of its illiquid assets, where the asymmetry of information about the bank’s borrowers may make it difficult for potential buyers of these assets to price them accurately.

What does this imply for regulation? If the failure of a financial institution would impose negative externalities on others, and if—as seems likely—these externalities are not factored into the risk appetite of that institution, then there is a case for official intervention. This could take the form of regulation of the financial institution to limit the risks it takes. Alternatively, or in addition, the authorities could provide deposit insurance to reduce, but not entirely eliminate, the incentive for “runs” and could provide financial support in the event of a “systemic” financial institution running into difficulties.

But this case for “systemic” regulation does not imply any unambiguous conclusions for the structure of regulation. The difficulty in determining which financial institutions might generate a significant negative impact on financial stability if they failed makes it difficult to draw a dividing line around which firms should be regulated by a separate “systemic” regulator. And if a narrow set of financial institutions is deemed to be of systemic importance (as for example by Goodhart et al, 1998), then there must be a risk that creating a separate regulator with a specific “systemic risk” mandate would increase the moral hazard problem. This would happen by creating the impression that the financial institutions authorized and supervised by such a regulator would be likely to be protected and supported in the event of problems arising.

Meanwhile, the inability of retail customers in particular to monitor the financial soundness of firms who take deposits, or where the value of an investment or insurance policy depends on the continuing financial health of the product provider, generates a consumer protection case for prudential supervision. And both the consumer protection and systemic risk arguments for regulation point toward the introduction of regulatory standards and requirements designed to protect the solvency of these institutions. So it may not make much sense to establish a structure of regulation based on a supposed distinction between the systemic risk and consumer protection bases for prudential regulation. Even if such differences could be identified, there is no reason why any appropriate differentiation in approach could not be applied by a single regulator, who might also be best placed to manage efficiently and effectively the considerable overlaps in approach that would remain.

—Does Not Justify the Case for Central Bank Regulation

So, as with monetary policy, the case for regulation in response to systemic risk does not provide an overwhelming argument in favor of the central bank undertaking regulation. But it is essential to preserve a flow of information between the regulator(s) and the central bank. This is because the central bank’s role at the heart of the payments system and their ability to utilize their own balance sheets means that liquidity support and other forms of intervention can most efficiently be provided to financial institutions through, or with the assistance of, a central bank. And it may equally be important for the regulator to provide information to the fiscal authority, because official support to an ailing financial institution, which turns out to be insolvent, could require public expenditure. It may also be observed that there may be competing synergies. Even if there was a systemic risk case for central banks to undertake the supervision of banks, the increasing prevalence of financial conglomerates means that a multiple regulator structure

might make it more difficult to assemble and to assess the available regulatory information, particularly in times of emergency. The synergies arising from a single regulator may outweigh those arising from undertaking the regulation of a subset of financial institutions within a central bank.

The conclusion of this section is therefore that the multifaceted relationship between regulation and central banking does not have strong implications for the optimal structure of regulation. It certainly does, however, make it essential for there to be close cooperation and an extensive flow of information between the central bank and the regulator(s). The U.K. Memorandum of Understanding provides an important underpinning to the necessary exchange of such information under the new arrangements in the United Kingdom.

Conclusions

This paper set out the theoretical advantages of a single national financial services regulator. It also demonstrated the way in which, in the United Kingdom in particular, these advantages can be delivered in practice, while minimizing as far as possible any potential downsides from such an approach. Goodhart et al (1998, page 181) may well be correct in stating that "there is no universal ideal model," not least because financial markets will continue to develop differently in different countries. But, overall, a single national financial services regulator, covering a broad range of financial services activities and spanning both prudential and conduct of business regulation, is likely to be well placed to deliver effective, efficient, and properly differentiated regulation in today's financial environment.

Endnotes

¹ The Securities and Investments Board, the Personal Investment Authority, the Investment Management Regulatory Organization, the Securities and Futures Authority, the Supervision and Surveillance Division of the Bank of England, the Building Societies Commission, the Insurance Directorate of the Department of Trade and Industry, the Friendly Societies Commission, and the Registrar of Friendly Societies.

² The new Act will replace the Insurance Companies Act 1982, the Financial Services Act 1986, and the Banking Act 1987, together with those parts of the Building Societies Act 1986 and the Friendly Societies Act 1992 that deal with the regulation of financial services business.

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Selected CEE Country Experiences

Framework for Financial Sector Development in the Czech Republic

Professor Norbert Walter

Introduction

The economic goal of the transition was to replace the inefficient management of the economy with one where market forces assured an efficient allocation of resources and a rapid and sustainable growth in living standards. Privatization, together with price liberalization, free domestic and foreign trade, and the enforcement of a hard budget constraint, are essential to the process of creating a set of incentives that favor enterprise restructuring and economic efficiency.

This paper's main conclusion is that the macroeconomic situation in the Czech Republic remains difficult. Not only has real GDP continued to fall, but unemployment has risen significantly and real incomes have contracted. The downturn has proved deeper and lengthier than expected and macroeconomic prospects are only slowly improving. Nevertheless, there have been some positive signals: the country's external position has improved and inflation has reached a level comparable to that in the EU. The current macroeconomic problems have highlighted the need to proceed quickly with remaining structural reforms.

Corporate Governance Issues

Both the pace and the extent of privatization in the Czech Republic look impressive. However, the quality of privatization, particularly with regard to big enterprises, is less impressive. In the mid-1980s, Czechoslovak state-owned enterprises and cooperatives accounted for 97 percent of the national material product, a share that was even higher than in the Soviet Union. Voucher privatization was the predominant method for privatizing large and medium-size companies while auctions were used for small-scale privatizations. The widely distributed shareholdings that arose from this process were concentrated in over 400 Investment Privatization Funds (IPFs). By mid-1996 with more than 70 percent of Czech GDP estimated to originate in the private sector, the Ministry of Privatization was abolished and the remaining privatization

issues entrusted to the National Property Fund (NPF) and the Ministry of Finance. Enterprises that could not find buyers and 56 so-called strategic enterprises (mostly utilities, the four big banks, steelmakers, and others) continued to be owned by the NPF. In 1997, the Ministry of Finance was made responsible for completing the privatization of the remaining strategic enterprises.

Ownership Structure Is Fragmented

The privatization process resulted in a complicated ownership structure, with, in some instances, unclear corporate governance structures. Indeed, although the IPFs succeeded in reducing the extent of the dispersion of ownership, the overall ownership structure remains very fragmented. IPFs were prohibited from holding more than 20 percent of any given firm's shares (since mid-1998 reduced to 11%). However, because of the dispersion of ownership, this limit did not prevent IPFs from gaining controlling stakes in companies. Although they did compete for acquiring stakes in the most profitable enterprises, the stock of such firms was limited and the IPFs ended up with a wide range of small participations in less promising firms. As a result, some three-quarters of their assets consist of participations representing less than 5 percent of firms' outstanding shares. Although some funds converted themselves into holding companies in order to exceed the 20 percent ownership cap, ownership consolidation remains an unfinished task.

The corporate control structure that emerged from the privatization process is further complicated, because most of the largest IPFs are operated by management companies that are owned by the major domestic banks in which the state has a controlling (and in some cases majority) stake through the NPF. Although ownership of the IPFs remains with their shareholders, the banks exercise a strong influence on their management. Thus, the existing ownership and control structure mix contains, somewhat arbitrarily, many of the characteristics of the so-called Anglo-Saxon model (diffuse joint-stock ownership), the German model (a central role for the banking system as institutional investor), and the "state capitalism" model (the state as principal shareholder).

Banking Sector Restructuring

Banking Sector Burdened by Bad Debt

Since the beginning of the transition, banks have tended to roll over the outstanding loans of troubled firms rather than take legal action, such as bankruptcy, in order to force repayment. As a result, companies have

been able to avoid substantial restructuring. Relatively easy access to bank credits for some firms may help explain the poor aggregate productivity performance of larger Czech firms. In the past, deficiencies in the Czech bankruptcy law partly explained the inability or unwillingness of banks, and other creditors, to foreclose on or, to refuse additional credits to failing debtors. However, some amendments to strengthen the bankruptcy law have been made recently.

Another problem is that Czech banks may have become more captive of old debtors than in other transition countries. For example, in 1995, banks changed the maturity of their loans to unprofitable companies to the advantage of the latter. Similarly, there is evidence to suggest that domestic banks have been cross-subsidizing loss-making enterprises by charging above-market interest rates to healthier firms in which they, or their IPFs, have controlling stakes.

Capital Markets Poorly Regulated

The banking sector is, of course, not the sole source of financing available to firms. Equity and bond markets also have an important role to play, all the more so in such a country as the Czech Republic, where, because of voucher privatization, a large share of output is produced by listed companies. An active and efficient capital market can convey good information about firm value and can serve to channel domestic and international savings to better use. In addition, through the appropriate monitoring of managerial decisions it can help to ensure the efficient behavior of firms.

Stock trading occurs in three separate markets in the Czech Republic (Prague Stock Exchange, RM-System, Over-The-Counter (OTC) Market). Activity among them is fragmented. Czech financial markets have come under heavy criticism in recent years, because of lack of transparency, poor protection of minority shareholder rights, rampant insider trading, other detrimental practices, and a generally lax regulatory environment. The information content of quoted prices is uncertain as those of even highly liquid shares differ substantially across markets, leading to low investor confidence. The situation in the over-the-counter (OTC) market is more opaque and the poor reputation of Czech financial markets derives mainly from OTC deals involving illiquid stocks, which represent the majority of issues, but the minority of market capitalization.

The second critical role of financial markets is to ensure that firm management maximizes shareholder value. In cases such as the Czech Republic, where share ownership is widely dispersed—even following IPF-brokered consolidation of participations—the problem can be particularly difficult. Aligning managerial interests with those of shareholders

is typically achieved via shareholders' capacity to dismiss management (managerial accountability). Unfortunately, in the case of the Czech Republic many of the most serious abuses of minority shareholders have involved management teams with controlling interests.

Contrary to the government's initial expectations, the Czech equivalent to mutual funds, the IPFs, have not provided an effective supervision of management—a failure that may well be attributable to the previously described link between banks and the largest IPFs and to the legally imposed 20 percent limit on IPFs' shareholdings. Empirically, the participation of IPFs in the ownership of a firm has no impact on the profitability of firms with IPF minority participations and those where a majority of shares are held by IPFs. IPFs' managers do not see monitoring enterprise performance and actions to maximize firm profitability as important goals. Rather, they focus on OTC trading. They see enterprise restructuring as the responsibility of strategic investors.

What Is to Be Done?

The combination of a banking sector burdened by bad debt and unwilling or unable to take actions against its debtors and a poorly regulated capital market with passive and dispersed ownership is among the principal reasons for the poor productivity performance of the Czech enterprises over the past several years.

The problem in the banking sector is twofold. First, as noted, banks are burdened by bad debt. This problem could be solved by a broad bail-out (an option so far rejected by the Czech authorities) or by the completion of privatization and re-capitalization (coupled with a credible move toward a regulatory regime where the state would no longer be perceived as the rescuer of last resort). The second problem concerns the banks' activities as shareholders and as managers of investment funds. While there are plenty of precedents and arguments for banks taking equity positions, their role as managers of IPFs places them in a clear position of potential conflict of interest and should be forbidden.

Privatization Is Key to Improving Banking Sector Health

In 1999 some progress was made in the field of banking privatization. On March 10, the government announced a precise and ambitious timetable for the remaining privatization culminating in the sale of CSOB to a Belgian bank for about one billion euro at the beginning of June. Recently CS has been sold as well. The financial markets reacted well to the transparent sales of the banks. The sale of the other large state-owned bank (Komerční Banka) is likely to be more difficult and yield less value for the

state, as Komerční Banka's clients include many large troubled Czech enterprises. Nevertheless, the completion of the privatization of the remaining banks is key to improving the health of the banking sector as well as to clarifying the links between the financial sector and the enterprises.

With regard to the bad loans in the banking sector, the Czech National Bank has also been more active in addressing this problem since the second half of 1998. In July 1998 loan classification and provisioning rules were tightened, and the Czech National Bank has since been pressing banks to be assertive toward debtors, and to write off more bad loans. These measures are crucial to improve the transparency and the long-term financial health of the sector, but in the short term they have induced more cautious lending on part of the large state-owned banks, thus worsening access to finance for most Czech enterprises and aggravating the current recession.

The operations of the new Securities Commission over the last year (policing of the markets, re-licensing of operators) have improved the general atmosphere in the capital markets considerably. A higher degree of independence for this institution seems to be desirable. Also, some action toward the integration of the three markets for stock trading (Prague Stock Exchange, RM-System, OTC-Market) should be taken.

Finally, the recent worsening of the macroeconomic situation has highlighted the need for accelerated structural reforms. Apart from the measures already discussed earlier (cleaning up of the banking sector) more transparency in public finances is necessary to boost investors' confidence. Similarly, the government should further seek to abolish subsidies to loss-making enterprises.

The Czech Banking Sector— The Role of Prudential Regulation

Pavel Racoča

Introduction

This paper evaluates the comprehensive framework needed for healthy financial sector development, the deficiencies in the financial sector in the Czech Republic, and the optimal role of financial sector regulation and supervision. It concludes that the establishment of a single regulatory authority, a trend in many countries, is not appropriate for the Czech Republic given its current environment. Rather, closer cooperation among different regulatory authorities is considered the most efficient way to proceed.

I. Financial Sector Development— A Comprehensive Framework

When evaluating a country's financial sector, it is common practice to examine market capitalization, outstanding loans, volume of insurance policies issued per capita, etc., but these data reflect only the financial development of the economy in a broad sense. In order to get a better understanding of financial sector health, a wider range of factors focusing on the numerous interactions of different players and activities, needs to be analyzed:

- (i) *Legal and judicial framework.* Writing and passing laws is only half the battle; developing a workable system to enforce the laws is the real goal. Without this, the best-crafted laws are inconsequential. In some emerging market economies, including the Czech Republic, it has become evident that it is much easier to adopt properly worded laws (however lengthy and painstaking the process), than to ensure their proper implementation. The process by which laws are understood, interpreted, and implemented by the judicial system takes time and great effort.
- (ii) *Macroeconomic environment.* A sound macroeconomic environment is critical to the stability of the financial sector. It is tempting for gov-

ernments to try to hide emerging economic imbalances in the financial sector. However, such a shortsighted policy will be costly, if not to the current government, then to subsequent ones.

- (iii) *Accounting practices.* The importance of sound *accounting practices* cannot be overestimated. It is impossible to perform serious analysis of a company's financials without proper standards for determining income recognition or asset valuation.
- (iv) *Tax structure.* A complicated tax structure not only typically has more loopholes than a simple one but also encourages individuals and firms to distort their decision making to reflect tax considerations rather than solely economic considerations. In the Czech Republic, for example, there are tax disincentives to provision for impaired assets and this directly influences banks' income statements.
- (v) *Corporate sector issues.* Corporate sector health is probably the single most important factor influencing the development of the banking sector; without sound firms there cannot be sound banks.
- (vi) *Financial sector structure.* A strong and diversified financial sector will be better able to weather bad times than a weak sector where only one segment (e.g., banking) is functioning.
- (vii) *Quality and capacity of financial sector regulation and supervision.* The regulatory and supervisory system must have clearly defined goals and procedures. It should establish certain barriers against imprudent behavior in order to protect systemic soundness and depositors' confidence. It should also respect market discipline, and promote sound business standards and competition.

Unfortunately, even the best regulatory system does not guarantee a sound financial sector and weakness is not generally attributable to just one factor but a combination of the above. This issue is well captured in the Basel Committee Core Principles,¹ which states: "Banking supervision is only part of wider arrangements that are needed to promote stability in financial markets. These arrangements include:

- Sound and sustainable macroeconomic policies;
- A well-developed public infrastructure;
- Effective market discipline;

- Procedures for efficient resolution of problem banks; and
- Mechanisms for providing an appropriate level of systemic protection (or public safety net).”

II. Deficiencies in the Czech Financial Sector

Bank Lending to Corporate Sector Stagnating

Deficiencies in the Czech financial sector are numerous but this section will focus on only one recent trend in the Czech banking sector. Over the past few years outstanding loans to corporate borrowers have stagnated or even decreased slightly despite the fact that there is excess liquidity in the form of bank deposit accounts in the central bank. At first glance the behavior of Czech banks appears irrational. Why do they prefer to keep liquidity with the central bank instead of lending at higher interest rates, particularly since the falling interest rate environment would make debt repayment more manageable for borrowers?

There are two explanations for stagnating lending to the corporate sector. *First*, banks’ balance sheets already contain a high amount of classified loans. Despite the fact that Czech standards for loan classification are tougher than those of many other countries, a significant portion of classified loans has already been provided for. The banks have continued to carry this burden on their balance sheet year after year because there are tax disincentives to writing off bad loans and because commercial courts tend to be more lenient to those debtors whose loans have been written off the banks’ books.

The *second* explanation for stagnating lending has to do with macroeconomic instability. The country experienced currency turmoil in 1997 and as a result of stabilization (including a fiscal austerity package and sharp rises in interest rates) slipped into recession. Domestic demand remains weak and there are only few signs of recovery. Given the Czech economy’s heavy dependence on loan financing, the stagnation in new loan issuance poses significant constraints on many firms. From the banks’ viewpoint, however, the current environment does not provide profitable opportunities for lending.

Can the Current Financial Sector Framework Be Improved?

Given the factors needed for an ideal comprehensive framework in the financial sector (outlined in section I) a number of factors—legal environment, accounting standards, corporate health, and banking sector structure—will be evaluated to see whether there is room for improve-

ment in the Czech Republic. Section III explores the issue of the quality and capacity of financial sector regulation and supervision separately.

As already mentioned, the *legal environment* favors debtors over creditors and does not provide the means to recover loans or seize collateral when debtors stop repayment. Law enforcement authorities work too slowly and inefficiently, in part owing (according to popular opinion) to their inexperience with complex financial operations and transactions. While this may be true in some cases, it does not explain why the authorities cannot work more efficiently in simple cases, such as loan repayment or fraud on banks. A more likely explanation is that personnel are poorly qualified and judicial officials lack the incentives to exercise independent judgment. The issue of proper *accounting standards* is also relevant since accounting information currently has a number of shortcomings, particularly in the area of income recognition that is heavily influenced by tax considerations. A number of changes have been implemented gradually and the intention is to make Czech standards fully compatible with internationally accepted standards within a year or two.

Corporate health, or the debt capacity of the real economy determines the volume and quality of loans in the economy. Demand for new finance has become segmented into new growth companies that are often majority foreign-owned and stagnant, partially state-owned industries (e.g., steel mills, ironworks, mines, transport, and machinery). The former can negotiate loan finance on very favorable terms owing to fierce competition among banks for their business and banks' margins having been squeezed close to zero. For the latter, with debt servicing consuming most income, loan finance is almost impossible to obtain except when accompanied by restructuring. The next wave of privatizations should accelerate the restructuring of some firms and hopefully create healthier borrowers, thus improving overall corporate health.

Financial sector structure—i.e., the inherent characteristics of size, diversity and soundness—is another important set of factors in determining the robustness of financial sector health. In the case of the Czech Republic, the economy is heavily dependent on the banking sector with total loans accounting for 77 percent of the country's GDP. This ratio is much higher than in some neighboring countries in transition and reinforces the need for a sound and efficient banking sector. Other segments of the financial sector—such as insurance and pension funds—play a smaller but increasingly important role in Czech capital markets.

Conclusion—In summation, there is no easy answer or quick fix to the problem of stagnant bank lending. Politicians often champion lowering interest rates, but this is not the magical solution. As one senior banker put it—"I don't care about the interest rates in the current situation. If I lend 100 for 7 percent or for 20 percent, the only difference is that I am

going to lose either 107 or 120." The only sustainable way to fix the problem is to fix the underlying factors affecting banks' credit decisions.

III. The Role of Financial Sector Regulation and Supervision

Regulation and Supervision Should Be Limited

The quality of financial sector regulation and the capacity of supervision are important determinants of financial sector soundness and should, in the author's opinion, be rather limited and restricted to the basic policy goals that include:

- Mitigating asymmetric information problems;
- Protecting the rights of the clients/depositors, (or minority shareholders respectively);
- Creating a level playing field among different types of financial institutions;
- Promoting transparency and sound market standards and practices; and
- Encouraging sound corporate governance standards.

Regulatory authorities that perform well will contribute to systemic soundness and to public confidence in the financial sector. Unfortunately, although the identification and adoption of strategic goals is of the utmost importance, adequate preparation of regulators, in terms of training and resources, is often lacking. This is a particularly acute problem in emerging economies where it is much easier to adopt rules and quantify their implementation, but infinitely more difficult to learn to use the qualitative judgment that plays such a crucial role in any modern regulatory and supervisory system. Moreover, it is possible (as happened in the Czech Republic) for policymakers to use regulation of the financial sector for purposes other than regulation (i.e., to encourage credit booms, control quantity of loans, assist state banks' privatization programs, etc.). Therefore, one of the first challenges a new regulatory agency often faces is educating the public and policymakers about the proper role of prudential-based regulation. Misunderstanding the main goals of proper financial sector regulation usually leads to a situation where none of the intended goals are achieved.

It is clear that the financial sector today is more complicated than it was only a few years ago. Deregulation, technical innovations (both

financial and communications) and cross-border mergers and acquisitions have helped to create financial institutions and groups in which previously separated activities are intermingled. New financial products are increasingly complicated and easily cross boundaries between different segments of the financial industry, such as banking and insurance and borders between countries. This development has led to closer cooperation of various regulatory bodies, both nationally and internationally, a much needed development. And, in many countries there has been a trend toward dismantling organizational barriers between different types of financial sector regulators and consolidating them into one regulatory authority. This is particularly the case in countries/regions where financial crises have occurred (e.g., Scandinavia, Korea).

Increasing Cooperation among Czech Regulators

In the Czech Republic *financial sector regulation* is separated into several institutions. Prudential banking regulation and supervision is performed by the Central Bank. Insurance and pension funds regulation and supervision are the task of the Ministry of Finance. The capital market has its own watchdog—the Securities Commission—that is semi-independent of the Ministry of Finance. With respect to Czech *banking institutions*, there are universal banks, whose business includes many different activities ranging from old fashion banking to securities trading as agent as well as principal. Some of the largest institutions have created financial groups that include mortgage banks, insurance companies, and other types of financial institutions.

Given these separate responsibilities, are there opportunities for closer cooperation among the different regulators? Cooperation among the three regulators started in June 1998, with the signing of a Cooperation Agreement providing for inter-agency discussion and consultation on future laws and regulations, exchange of information on troubled institutions, and cooperation in on-site examinations, etc. The Agreement has yet to have an impact and amendments will be needed to make it effective. For instance, the current law does not allow for the exchange of information among insurance supervisors despite the fact that different authorities recognize the necessity of closer cooperation, and are willing to cooperate to fulfill their main regulatory and supervisory tasks efficiently.

A Single Authority Not a Solution for the Czech Republic

Would a merger of these authorities and the creation of one Super-Regulator solve the existing problems? Without discounting the obvious

benefits of such a move, the author does not believe so for the following reasons. The first and greatest obstacle is that a merger would be politically difficult to achieve in the face of competing lobbying groups for the financial industry. A second, admittedly rather practical problem, is that the possibility of utilizing the scarce resources of the different regulatory agencies to pay for merger-related activities would be unpopular. Third, different financial segments and their overseeing regulatory agencies are in varying stages of development. Admittedly, this could be an argument in favor of a single authority as it might assist the less developed and less experienced segments to progress faster with fewer mistakes. Finally, a new public agency would require selecting and appointing management and providing a legal framework for its activities. This could be rather time and capacity consuming in some countries and might be considered an unwarranted additional cost.

Conclusion

There are many factors determining the soundness and efficiency of the banking sector and any solution to existing problems should take into account the full complexity of modern financial sectors. One approach is to merge different regulators into a single authority, but this is not a general panacea. In fact in certain countries, this could pose significant risks to the quality of the regulatory process. The fact is that there is no substitute for engaging in the lengthy and complicated process of modernizing the legal environment, improving accounting standards, and training bank supervisors. Therefore, in the author's opinion, closer cooperation among different regulatory authorities is considered the most efficient way to proceed given the current environment in the Czech Republic.

Endnote

¹ *Core Principles for Banking Supervision*, September 1997, Basel Committee on Banking Supervision.

Integrated Supervision in Hungary

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Introduction

This paper provides an overview of the steps taken toward establishing an integrated supervisory authority in Hungary. The paper lists the arguments for and against and concludes that given its limited human resources, there is some justification for accelerating the establishment of an integrated authority.

Steps Toward Integration

Universal Banking and Separate Supervisory Authorities

In Hungary, banking sector reform pre-1990, favored the universal bank model. Subsequently, with a view to helping the underdeveloped capital markets, the specialized bank model was introduced. Prior to 1999, Hungarian banks could not obtain licenses to provide full-scale investment services. These services (including insurance) could be offered, however, through separate subsidiaries and included supplementary financial services such as financial leasing, factoring, etc., as well as support services to banking businesses (e.g., building maintenance, bank security, delivery of banknotes, etc.). Banks' share in non-financial companies cannot exceed 15 percent of their adjusted capital, and non-financial companies' share in banks also cannot exceed 15 percent. Within this regulatory environment, the largest banking and financial groups (or conglomerates) typically had subsidiaries for nearly all of these services (insurance provision, however, was not very common). With respect to small and medium-size banks, the provision of investment services through separate subsidiaries was also quite common.

Prior to 1997, four supervisory authorities carried out prudential supervision of these activities: the State Banking Supervision, the State Securities and Stock Exchange Supervision, the State Insurance Supervision, and the State Pension Fund Supervision. In addition, Hungary had separate supervisory bodies for consumer protection and market competition, although the distinction between them was not fully differentiated.

1996–1999, Moves toward Integrated Supervision

The Banking Law of 1996 introduced new consolidated banking supervision regulations and merged the former separate banking and securities supervisions into a new institution—the State Banking and Capital Market Supervision (SBCMS). The SBCMS carries out the supervision of credit institutions, other financial undertakings, investment service providers (brokers, dealers, and underwriters), investment funds, fund managers and the stock and commodity exchange. From January 1, 1999, banks can obtain licenses to provide the full range of investment services. Thus, the need for “consolidated” supervision for the banking sector emerged.

The emergence of conglomerates providing banking and securities services and the move to full range investment services provided the general impetus for revising supervisory structures in Hungary. There were a number of specific reasons for supporting an integrated supervisory authority mode. First, it was believed that separate supervisory institutions for the banking and securities sectors might not co-operate and/or communicate effectively, and there might not be adequate overview of supervised institutions.

Second, privatization of the banking sector was proceeding rapidly and the banking system was becoming very open, with approximately 70 percent of registered capital under foreign control. As a result, high professional standards had been achieved and contributed to widespread innovation, including some elements of regulatory arbitrage. The unification of supervisory authorities appeared to be the most appropriate response to this regulatory and supervisory challenge. Finally, it was also recognized that scarce human resources could be much more efficiently utilized in an integrated supervisory authority if communications and information sharing were well organized.

Some Arguments against It

The main argument against integrated supervision was that there are important differences in asset and liability structures between banks and insurance companies and provision of insurance was not a key activity of Hungary’s financial groups. In banking, asymmetric information problems can provoke contagion, which has systemic consequences. Safety nets such as deposit insurance schemes and lender of last resort function of central banks usually imply moral hazard that provides a further justification for special prudential supervision considerations to reduce risk exposures. The possible systemic consequences require an appropriate institutional relationship between the central bank and the bank supervi-

sor. Troubled insurance providers, on the other hand, usually do not result in systemic consequences and therefore insurance supervision issues are different from those of bank supervision issues.

Two additional reasons are given against an integrated regulatory authority. First, a private pension fund system and pension fund management in Hungary was expanding at the same time revision of supervisory structures was being legislated. And, second, consumer protection and conduct of business regulation in Hungary require basically different approaches and were thought to be best provided for by separate institutions.

Initial Problems with Integration of Bank and Securities Supervisions

As expected there have been some problems in integrating banking and securities supervisions because of the different organizational criteria and supervisory standards used in the two sectors. The two supervisory authorities continue to use different data collection and reporting systems, which means in effect that they operate as two relatively independent supervisors under one umbrella. The resulting duplications basically hinder the potential scale economies from the merger. Following the Russian crisis in 1998, the securities supervisors began to reorganize their work and standards with respect to financial profile, coverage, and frequency of reporting, in line with those of banking supervision. Further efforts are currently underway to unify data collection, processing, and analysis of the banking and securities sectors into a single organization, thus offering more efficiency gain through staff reductions and lower cost of operations.

Conclusion

It is believed that problems of coordination among the remaining separate supervisors can be solved initially by cooperation agreements and later by setting up a special coordination body. However, given Hungary's highly concentrated financial sector and limited human capital with respect to supervisory skills, there is an argument for accelerating the establishment of an integrated regulatory authority rather than having interim institutions for coordination.

Supervision over Financial Markets in Poland— The Experience of the Securities and Exchange Commission

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Introduction

This paper presents an overview of financial market supervision in Poland and comments on the direction of its future development. The financial sector supervisory model adopted in Poland is based on a concept of market segmentation and multiple regulatory agencies—the Commission for Banking Supervision, the Securities and Exchange Commission, the State Agency for Insurance Supervision, and the Pension Fund Supervisory Agency. Given the ongoing process of economic transformation in Poland, this segmentation of supervision would appear to be a better solution than a single authority. The current model could, of course, be improved.

Multiple Regulatory Authorities

The process of economic and systemic transformation in Poland, which began in the early 1990s, has significantly altered the way in which financial markets function. After almost 10 years, they fulfill all the functions required by a market economy. Privatization, foreign capital entry and liberalization of capital flows have dramatically changed the banking and insurance sectors. In 1991, the development of a capital market began with the opening of the Stock Exchange and the establishment of the Securities and Exchange Commission to supervise market operations.

In 1999, reform of the social insurance system started with the first General Pension Fund Companies receiving permission to run activities. Supervision over this segment of the market is performed by the Pension Fund Supervisory Agency (Urząd Nadzoru nad Funduszami Emerytalnymi), established in 1998. With respect to supervision of the insurance sector, a State Agency for Insurance Supervision (Państwowy

Urząd Nadzoru Ubezpieczeń) was established in 1994 with the Chairman of this Agency reporting to the Minister of Finance.

The National Bank of Poland (NBP) has always been responsible for supervising the banking sector, under the Chief Inspectorate for Banking Supervision. Two different concepts for the future direction of banking supervision were recently floated. The first proposed retaining the current supervisory arrangement under the NBP. The second proposed the establishment of an independent agency, operating outside the control of the National Bank. Since representatives of the two proposals failed to reach consensus, a compromise solution was agreed. The Chief Inspectorate for Banking Supervision would remain within the NBP structure, but would be subordinated to a newly established Commission for Banking Supervision. This is a collective body headed by the President [Governor] of the National Bank of Poland. Other members include:

- Two representatives of the Ministry of Finance (inclusive of the Minister or his deputy);
- The Chairman of the Securities and Exchange Commission or his deputy;
- The Director of the Chief Inspectorate for Banking Supervision; and
- A representative of the President of the Republic of Poland.

As we can see, the model of supervision over financial markets adopted in Poland is based on the concept of market segmentation and multiple regulatory authorities. Given overlapping activities, cooperation between them has been formalized in some instances. For example, the Securities and Exchange Commission grants banks licenses to conduct brokerage or trusteeship activities, and also supervises whether the banks, being public companies, discharge their information duties. Thus, the need for a close cooperation with banking supervision is obvious and legal regulations have been established to facilitate cooperation. Also worth mentioning is the cooperation between the Securities and Exchange Commission and foreign institutions responsible for supervision over the capital markets. A new Act (Law on Public Trading in Securities) allows the Commission to sign a Memorandum of Understanding with institutions regulating and supervising capital markets abroad. Recently, the Securities and Exchange Commission signed MOUs with Securities Commissions from Germany, France, Portugal, and Argentina and anticipates entering into other agreements in the near future.

However, while the new banking law establishes cooperative arrangements for various types of activities and exchanges between officials of the NBP and the Securities and Exchange Commission, similar regulations are not in place to foster cooperation between, say, the Securities and Exchange Commission and the State Agency for Insurance Supervision. Given that several insurance companies enjoy public company status (the largest Polish insurance company—PZU will soon be privatized), additional cooperative arrangements would be advisable. A good example of this is the draft Act on Money Laundering being prepared by the Ministry of Finance. The Act will establish precise principles for cooperation between the General Inspector and all the institutions supervising specific segments of the financial markets. In this respect, the Act will define the future model financial market supervision in Poland.

It is difficult to assess whether the model of a single regulatory authority would be preferable to the current model of multiple authorities operating in Poland. But it is the author's opinion that for countries such as Poland, in the process of economic transformation, a segmentation of supervision seems to be a better solution. The fact that Poland's capital markets are well supervised and regulated helps to substantiate this position. However, there is no doubt that the current model can be improved. Based on the positive experience of the Securities and Exchange Commission and the banking supervisory bodies formalizing cooperation, there is hope that this can be replicated between the other segments of the financial sector.

Conclusion

In summation, the Polish capital market has shown that it is possible to supervise a certain segment of the financial market well, both in its national and international aspects. This does not mean, however, that other models of financial supervision cannot be equally good or even better.

Factors to be Considered When Determining an Institutional Framework for Integrated Financial Supervision

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Introduction

This paper aims to analyze the factors to consider when determining the institutional framework for an integrated financial supervision (IFS). First, it looks at the functions of financial sector supervision in a society by analyzing the specific interests of the stakeholders, conflict of interest issues, and the activities through which stakeholders can exercise public interest. The structure of state administration is then described by comparing the concepts of coordination and subordination and the advantages of the decentralization of power.

The specific features of financial sector supervision are described in order to decide what the most appropriate framework is for the successful implementation of its functions. Special attention is given to areas such as discretionary decisionmaking and the advantages of using arbitration versus implementing judicial control by applying administrative court proceedings. The presentation concludes with an analysis of effecting control over the activities of an independent IFS.

To determine an institutional framework for a public institution, it is essential to analyze the tasks the institution is facing in order to secure:

- Efficient performance of functions;
- Execution of control by which the accountability of the institution is guaranteed;
- Adequate allocation of decisionmaking powers; and
- Compatibility of the institution with the general structure of state administration.

Public Interest

Intervention of IFS as a public administration agent in the operations of financial institutions is justified by the interest of society in the given sphere. Public interest may be defined as follows:

- (1) The necessity to guarantee money circulation and the optimal use of resources (systemic interest); and
- (2) The necessity to secure the safekeeping of finances (consumer protection).

In the case of financial supervision, public interest is primarily represented by two institutions. The first is the Government, which is responsible for the execution of public administration and the realization of political priorities. The second is the central bank which, as a statutory institution, has to guarantee the stability of prices and money circulation. One of the key prerequisites for the successful achievement of these tasks is the strength and the stability of the banking sector.

In order to also ensure the execution of functions in a situation of crisis and conflict, it is essential that both the government and the central bank be guaranteed the ability to enforce sufficient control and obtain timely information, not by administrative rules and practices, but through an institutional framework. If the central bank cannot participate in the activities of financial supervision, its ability to fulfil its constitutional duties is not sufficiently secured.

In order to achieve the above-mentioned purposes there are two main types of activities:

- (1) Legislative activities in the form of setting regulations with the aim of securing currency stability, optimal conditions for the operation of economic agents, and the avoidance of excessive risk taking; and
- (2) Exercising public administration with its primary objective of introducing control mechanisms to guarantee the effectiveness of regulations, through authorizing certain institutions to conduct supervision.

Legislative activities are predominantly within the competence of Parliament. Political decisions aim to directly influence the activities of economic agents in order to secure functioning thereof in accordance with set priorities. A part of the regulations may be delegated to:

- Executive power (the Government) whose task it is to adopt legal acts on the basis of the Law, and observe their compliance with established priorities; and/or
- Specialized institutions, including the central bank, which guarantee the conformity of the regulations with the changes in the environment in which the financial institutions operate.

In the area of financial supervision the drafting of secondary legislation is usually delegated to the executive power (Ministry of Finance). In order to ensure the execution of the statutory functions of the central bank, it is necessary that the central bank have the right and the responsibility to express its opinion about the proposed regulations. In order to guarantee the conformity of regulations within a constantly changing environment it is necessary to include IFS in the preparation of regulations. One can consider obliging the IFS by law to propose amendments to regulations to the Ministry of Finance, if that is necessary because of the changing external and internal environment and in order to make supervision more efficient. In order to preserve operational flexibility the IFS itself should have the right to pass procedural regulations.

Expediency

Based on the principles of a democratic society, the main objective of the parties in power is the realization of the public interest in the best possible way. One form of this realization—the administration—is delegated to:

- The executive power or the Government; or
- A legal person of public law.

Legal persons of public law as administration agents are established and based on the principle of expediency. Expediency primarily means that the legislator or administration chooses among the many different possible measures or alternative solutions, i.e., they proceed from the characteristics of the particular area of activity and do not attempt to adjust the area of activity to the current administrative framework. In the theory of administrative law, expediency is treated as discretion (i.e., as the competence of an administrative body to freely assess the situation and pass a relevant resolution). This is why expediency is not under the control of the court, and decisionmaking is often based on the following non-legal criteria:

- Arguments specific to the corresponding area of activity; and
- Administrative and political considerations.

Decentralization

The experience of other countries indicates that the centralization of power may weaken the flexibility and the ability to adapt to the changing environment. That is why in many spheres of life the decentralization of state authority is pursued, either by the territorial principle (local government level) or based on the functional principle (the spheres or sectors in which it is not expedient for the state to fulfill all administrative functions by itself).

The execution of administration through a public legal entity is one of the expressions of the decentralization of power. By decentralizing power (i.e., decreasing the hierarchical control of the Government and establishing the operations of administrative bodies on the principle of coordination) in spheres with significant public interest one should consider whether:

- (1) In the case of decentralization a uniform execution of administration is guaranteed in a particular area of activity; and
- (2) It is possible to guarantee society's control over the performance of a certain administrative function by not applying internal control (on the basis of subordination) but instead by using external control (when the controller is not on subordination terms with those to be controlled).

The subordination of financial supervision to the executive authority (to the Ministry of Finance) would mean diverting from the principle of decentralization. It is above all problematic in areas where adaptability and flexibility are the essential preconditions for effective operation. The financial sector as the most rapidly changing industry of the economy puts enhanced requirements on the supervision that constantly has to adapt its operations to the relocation of risks and to changes in the environment. In a crisis situation the IFS should be able to involve additional (human) resources for solving problems and to rearrange its work. As effective supervision is one of the important preconditions for avoiding systemic problems, the inflexibility and administrative restrictions on the decision-making processes that are inevitable in the case of a strong centralization and hierarchical control, should be avoided.

In addition to the arguments of flexibility and adaptability mentioned above, it is also necessary, in accordance with the 25 Basel Core Principles for Effective Banking Supervision, to guarantee the supervisor independence in passing supervisory decisions. The power to pass discretionary decisions allows the opportunity to accuse officials of partiality (e.g., the accusations of acting in the interests of political parties/certain interest groups) which may considerably damage the reputation of IFS. In the same way accusations about corruptive practices may be raised against politicians. It maybe complicated to reject such accusations when supervision is carried out in the framework of bureaucratic subordination. In order to avoid speculations of any kind one should tend toward increasing rather than decreasing the institutional separation of the IFS from political parties.

When decentralizing power, a uniform functioning of administration should be guaranteed within the respective sector. It may be more complicated when the authority within the same sphere is distributed among different institutions, but is easily achieved if all the supervisory institutions of the financial market are united and subordinated to common control.

Coordination versus Subordination

In the case of coordination (as opposed to subordination) the institutions legally deal on equal terms with one another (which is characteristic of private legal relations or of contractual relations), and they act independently within the limits of competence granted to them by law. In such a situation in order to apply judicial control, the law will regulate all aspects of relations. The administration based on coordination can be applied to:

- Relations between different administrative bodies; and
- Relations between the administrative body and the subjects of its operation (institutions in private law).

Conducting supervision of the financial sector only through imposing administrative power (authority) may not be effective. In determining the institutional structure one should look for the opportunities to make use of public interest. In the area of financial supervision it is in the common interest of the subjects of supervision as well as the consumers of financial services to guarantee the stability of the financial sector. The observance of the laws that secure this stability is essential for everybody, as their well-being and profitability is directly connected with it. In order to

make market discipline more effective, one should pay special attention to the transparency of the operation of IFS and to the equal possibilities of all parties to defend their rights and to demand that the duties imposed by law are fulfilled. The best way to do that is by using coordination, instead of operating in the environment of bureaucratic state control. The suitability of the principle of coordination for financial sector supervision is demonstrated by the fact that in many countries power is increasingly delegated to self-regulatory organizations (SROs) (also in EU directives) and in some areas state power is not used at all (e.g., takeover panels).

The application of coordination between IFS and other state institutions would be an important guarantee to independence, particularly owing to the increased transparency in the relations between the institutions. Administrative control imposed by a Ministry over institutions working under its direct responsibility usually allows the Ministry to interfere in the operations of an institution under its supervision. The statutes of a Ministry determine the scope and extent of administrative control, and the amendments into the statutes are subject neither to parliamentary control nor to public discussion. Therefore the actual functioning of subordination and control are less transparent. That is why it is preferable to apply external control, by which the person to be controlled would not be directly subordinated to the controlling one. In such a case, control is imposed within the limits enacted by the law and effected through the supervisory board of that institution, in conformity with the generally accepted principles of corporate governance. An important precondition for guaranteeing the efficiency of external control is the quality of laws, which determine mutual rights, obligations, and functions between the different stakeholders and IFS. A high quality in legislative texts also helps to increase the role of judicial control.

Conflict of Interest

The objectives of one area of activity need to be compared to the objectives the society is facing in other areas in order to assess whether:

- The interests of one public institution may in certain situations be in conflict with the principal objectives of another institution; and
- The traditional structures of the state provide a suitable framework for achieving the given objectives.

Conflict of interest between different public institutions is inevitable in any integrated society where a precondition for one institution to achieve

its aims is often the successful fulfillment of the objectives of another institution.

When discussing the conflict of interest in the context of financial supervision, one should analyze the main aims and functions of the government and the central bank. The central bank is to guarantee the stability of prices, the smooth functioning of the payment systems and to play the role of a lender of last resort in case of need. The precondition for the achievement of all these aims is a strong financial system. At the same time it has been argued that the above aims may conflict with the aim of decreasing depositors' losses in the case of bank failures. This becomes evident if the central bank wishes to save banks by increasing the money supply and by lowering interest rates, which is possible only by sacrificing the stability of prices.

In Estonia, for instance, because of the limited use of discretionary monetary policy measures within the context of a currency board, the conflict of interest between monetary policy and the supervisory function is very limited. Rather, when linking IFS to the central bank similar competencies can be combined in areas of principal activities. Based on this value is added to the closer relationship between IFS and the central bank. In the case of government, the Ministry of Finance, as an active user of commercial banks' services (via depositing public funds and borrowing in the financial markets), must take into consideration conflict of interest. This becomes apparent in the need to pass resolutions in the sphere of supervision on the basis of confidential information while at the same time operating on market principles (transparent relations) when managing the state budget by using the services of private banks.

Subjective Discretion in Decision Making

When executing state administration through an executive power, it is a generally accepted principle that it is necessary to provide security to economic agents in respect of restrictions applied to them. For this reason discretionary decisions are limited to the minimum. In order to assess whether administrative enforcement is efficient and expedient, it is necessary to assess to what extent:

- It is possible to give a precise definition of the nature of the object of the regulation in the law (to use determined legal concepts); and
- It is necessary to vest discretion with a competent body to determine the content and application of specific concepts, at the same time creating the environment suitable for the application of necessary discretion through coordination.

When discretion is applied by state administration, such decisions are subordinated to judicial control (through an administrative court competent to inspect the objective of discretion, limits of discretion, equal treatment, and other generally accepted legal principles). Such control will be efficient primarily when using determined legal concepts but will not suit decisions where undetermined legal concepts are used. It is an internationally accepted practice (and also a recommendation of the Basel Supervisory Committee) that supervision should be delegated the power to make discretionary decisions in areas such as the fitness and properness of management, the adequacy of risk management practices, etc. Subordinating such undetermined legal concepts to judicial control through administrative courts opens the door to endless legal disputes.

Effecting Control over IFS

In order to guarantee lawful administration, it is essential to establish control over public administration. The aim of control is to determine the quality of operations and to improve them if necessary. Control can be divided into:

- Political, or parliamentary control;
- Judicial control; and
- Administrative control, or self-control.

Political or parliamentary control is executed through legislative activities. Its main task is to secure, through legal acts, that on performing a respective function, the following is guaranteed:

- The protection of public interests in the best possible way and in accordance with established political priorities; and
- Appropriate rights and responsibilities are delegated to the institution executing administration.

External political control over the IFS should be applied on the first level through legislative action and through establishing priorities in the relevant institution. Reporting may be directed either to the Parliament or to the institution, to whom the realization of administrative control has been delegated to (e.g., the supervisory board of IFS). Through the publication of accounts and annual reports, the public is enabled to assess the

efficiency of operations of IFS. Regular reviews and hearings may be conducted not only in the supervisory board but also in Parliament and/or in the institution determined by it (for example Ministry of Finances and/or central bank). External control is also carried out through the State Audit Office.

The precise description of the rights and responsibilities of the decision-making bodies helps to prevent the abuse of power and allows sanctions to be applied if established tasks are not fulfilled. The transparency of the decision-making process helps to determine responsibility at the different levels of decision-making bodies. Within IFS one can separate decisionmaking in the following fields:

- Operational priorities and strategy;
- The allocation of resources (operational plan and budget) approved by the supervisory board of IFS;
- The licensing and de-licensing carried out by the Ministry of Finance on the recommendation of IFS; and
- The supervisory and operational decisions delegated to the sole competence of the General Director of IFS.

If the law defines in detail the decision-making power (e.g., the priorities set by IFS should conform to the main objectives set in the law, and resources should be sufficient to guarantee the fulfillment of the tasks), it is possible to assess externally the work of different decision-making bodies and to apply judicial control when the duties are not fulfilled.

Role of Arbitration

The task of judicial control is to guarantee the lawfulness of operations (i.e., functioning within the limits of authorization granted by laws in order to protect the rights of individuals against the abuse of power). Judicial control over public administration is usually executed through an administrative court the same way in all areas of administration. Such judicial control is effective if the rights and responsibilities of a public institution and the subjects of its operation have been precisely determined (through applying determined legal concepts). On the other hand, resolving legal disputes in the court of arbitration is based on coordination, which in its turn is characteristic of the decentralization of state authority.

The court of arbitration is considered more effective because:

- (a) Arbitrators are elected by the parties to the dispute;
- (b) Arbitrators are elected on the basis of knowledge and expertise; and
- (c) Procedures used in the court of arbitration are faster and less expensive than in any judicial proceeding.

Owing to the characteristics of supervisory decisions in the financial sector, judicial control through an administrative court is sometimes neither sufficient nor efficient, as decisions that may be brought to court are often based on a subjective assessment of the situation and/or of the probability of an event taking place. In the theory of jurisprudence, such judgments are considered to be spheres where only limited judicial control can be applied. If decisions that demand specific knowledge become effective only after their formal legal confirmation by the administrative court or are disputed by such courts, this may substantially endanger the effectiveness of supervision.

Despite the limitations of administrative court proceedings, it is still necessary to secure judicial control over supervisory resolutions. The task of an administrative court in such cases will be limited to determining whether the discretion was applied in compliance with the laws and to directing the disputes about the expediency of the relevant decision to an arbitration court. Also, administrative courts should deal with direct violations of law. Defining precisely the scope of judicial control increases the effectiveness of supervision as well as the trust of the supervised entities in the restrictions applied to them.

Administrative Control

The objective of administrative control, or self-control, is to execute internal control within an institution itself. Specifically this means monitoring operational efficiency, ensuring appropriate management functions, and expediting the use of its resources, and its administrative capability to further the public interest. Even very strong centralized control cannot be effective if the corresponding institution itself does not maintain internal control.

The supervisory board, through the internal audit function (which monitors whether the resolutions and internal procedures issued by the supervisory board are observed), carries out the first level of control. The publication of the minutes of the supervisory board meetings and official correspondence of IFS (without compromising confidentiality) could also

be considered when implementing public control. It is also necessary to guarantee the existence of effective methods within the institution for the execution of control, including (a) reporting; (b) the transparency of the decision-making processes; and (c) the right to apply sanctions.

The appointment of and calling back of officials is a means to effect direct administrative control. The definition of the body, which is empowered to appoint key officials, will also determine the position of the institution in the administrative hierarchy of a society.

Conclusion

The analysis in this paper shows that an independent public legal entity is the most appropriate framework for exercising the functions of financial sector supervision. It allows for the decentralization of power and for implementing coordination vs. subordination between the supervisor and the supervised. It is also the most appropriate way to avoid possible conflict of interest situations. At the same time, special care needs to be taken to ensure that all stakeholders are provided with the necessary information and the possibility of being involved in defining the strategy of the supervisory institution. The most important challenge in establishing an independent public legal entity is the enforcement of appropriate control over its activities. The definition of administrative, parliamentary, and judicial control can be achieved through establishing relevant rights and responsibilities in legislation, and by putting in place adequate reporting and decision-making mechanisms.

Endnote

¹ The views expressed in this paper are those of the author, not of the Bank of Estonia.

Prague Seminar Commentary

Pedro Alba

This paper will try to give some concluding views, or organizing thoughts, for the workshop as a whole. This is not an easy task and a non-specialized economist summarizing a workshop on financial sector supervision has its pros and cons. The con side is obvious—a lot of the technical discussions were over my head. But on the pro side, because perhaps of this lack of technical expertise, I may be better able to see the forest through the trees. In any case, let me try to explain how I am organizing in my mind the discussion we have had over the last two days. Hopefully, my organizing framework will be both useful and interesting for you.

I will start by reviewing quickly what the basic rationale is for regulation and intervention in banking and capital markets. We kept coming back to these fundamentals time and again during the workshop, both as a frame of reference and also to clarify the main questions we struggled with. I will then turn to the main themes we discussed during the workshop. Finally, I will try to put together these themes with our discussions of the rationale with the help of some tables and diagrams.

The rationale for regulation is to deal with various financial market failures, in particular imperfect, asymmetric information and externalities that would otherwise reduce welfare. Given this rationale, the object of regulation in the financial services industry is to contain systemic instability and protect the consumer.

Indeed, experience suggests that financial systems, because of these externalities and asymmetries, are prone to periods of instability and failures, and that these failures entail large welfare costs. I believe it is safe to say that there is widespread agreement among us that regulation is required and effective. But several speakers also made it clear that regulation could be costly, including when it is imposed to achieve inappropriate objectives. Andries Brandsma, for example, raised the question of whether certain aspects of the “*acquis*” in the financial services area are not more appropriate for mature financial sectors than for sectors still in the development stage. More generally, the question on what the “optimal” form and intensity of regulation and supervision are one we kept coming back to during the workshop. Charles Freeland, in one of his interventions, noted the effort being made by the BIS and the IFIs to develop more fully best practice and minimum requirements for bank supervision and regulation. Roberto Zahler, for example, spent some time

justifying why the Chilean authorities strengthened the regulatory framework and supervision in banking as much as they did. Finally, in this regard, as noted by Jerry Caprio, regulation needs to be compatible with incentives that provoke the private sector to behave in a manner that is consistent with the underlying objective that the regulation was trying to achieve in the first place. Moreover, the answer to these questions on the variety and intensity of regulations is not independent of initial conditions of the financial sector and the economy more generally.

This mention of initial conditions is a good opportunity to deal with the interrelationships between the macroeconomy and financial sector vulnerability. As noted by many of the speakers, macro shocks or inappropriate macro policies have been the most important cause of financial crisis. In this regard, as stressed by Roberto Zahler in particular, emerging markets are, broadly speaking, more prone than industrial countries to suffer domestic (for example, productivity shocks) and external shocks (less diversified trade, more subject to contagion and investor herding). They may also suffer more from information asymmetries and externalities because of the weaknesses in financial sector infrastructure. Hence, there is a case to be made for regulation and supervision to be more intense in emerging than in mature markets.

Turning to themes, we focused mainly on four interrelated ones during the course of the workshop:

- The first theme explored how the countries in Eastern and Central Europe, while at different stages, are coping with a process of deep change in their financial sectors as a result of liberalization and privatization, institution building and, in some cases, financial dis-intermediation. In all countries, this liberalization process is increasing competition, leading to more efficiency and financial innovation, but perhaps also to increased risk taking. This process is perhaps more complicated in Eastern and Central Europe than in many other emerging markets because of the fundamental realignments in relative prices and commercial ties resulting from transition that makes assessing creditworthiness of firms particularly difficult. Several speakers described these pressures and resulting changes in their countries, while Karel Lannoo provided an overview of several CEEC countries. As noted, while some countries have made significant progress, others are still struggling to clean up balance sheets, privatize and strengthen regulatory and supervisory frameworks, and build institutions.
- The second theme looked at the requirements for the development of a sound banking, and more generally financial, sector. This would be defined as one that intermediates savings efficiently and hence con-

tributes positively to sustained growth. This requires much more than good supervision, which is the narrow focus of this seminar. The different speakers emphasized different legal, regulatory, policy and institutional issues that complement supervision. As stressed by Udo Bader, the EU "*acquis*" includes many of these complementary aspects and has served member countries well, including, as explained by Vicente Fernandez, some of the more recent and relatively less prosperous entrants in the Union, such as Spain.

- The third theme is in a sense a subset of the previous one, in that we looked at systemic risk issues with particular attention and concern. Reducing the vulnerability of the banking system to shocks requires a combination of sound macroeconomic policies, strong regulatory and prudential frameworks and corporate governance arrangements that do not create incentives for excessive risk taking, backstopped by good supervision. As described in Khun Kitti's presentation, the changes made in the Thai regulatory and supervisory framework are a good example of the broad nature of the reforms to reduce systemic risk.
- And finally, the fourth theme more narrowly focused on integrated financial sector supervision, and as argued by Robert Taylor and Clive Briault, presents several advantages to the more traditional supervision along sectoral lines. But as explained by Messrs. Kozlowski and Szalkai in their presentations on Poland and Hungary respectively, there are alternative systems presenting their own advantages. I do not think that we reached full closure on this debate, and countries need to adopt the system most suited to their needs.

Putting these themes together with our discussion on fundamentals, let me try to summarize our discussions and conclusions by focusing on four questions:

1. First, what is the relevance for Eastern and Central European candidates for EU membership of certain elements of Hennie Van Greuning's matrices describing the requirements for a sound financial sector that contributes to growth through higher and more efficient capital accumulation?
2. Second, do the experiences with recent crisis in East Asia and elsewhere increase or decrease the relevance of these elements?
3. Third, is there an optimal level of regulation? What are the risks of "excessive" regulation?

4. Fourth, what are the implications of the “EU *acquis*” on financial sector development in Eastern and Central Europe?

Let me provide first some answers to these questions at a rather aggregate level.

- Implicitly some may have in mind a transformation curve between regulation and growth of the financial sector with a negative slope, showing that there is a trade-off between the two. In reality, the relationship is more complicated.
- More justifiable would be a Laffer-type curve, in which regulation initially leads to development of the financial sector mainly by increasing confidence and reducing transaction costs. It is interesting that the sole representative of the private sector, Dr. Walter, mentioned the need for improvements in regulating/monitoring capital markets in the Czech Republic.
- As the financial sector is liberalized and repression reduced, to avoid financial crashes requires not deregulation but a different kind of re-regulation that allows markets to function but corrects market failures.
- If anything, the “boom in busts” suggests that we are far from over-regulating the financial system.
- It should modulate the cushions provided by prudential rules in function of probability and severity of shocks. As noted above, emerging markets are more prone to volatility, in particular with capital market liberalization, as required in the “*acquis*.”
- I am not sure whether the lifting of capital account restrictions required in the “*acquis*” would suggest overshooting on the prudential side.

<i>Elements for Sound and Dynamic Financial Sector</i>	<i>Relevance</i>	<i>Lessons from crisis in East Asia and elsewhere</i>	<i>Optimality and Intensity</i>
I. Prudential Rules			
Capitalization	Very.	++ Quality and quantity.	>Basel
Credit Exposure Limits	Very.	+++ To related parties and to volatile assets.	Special care in small economies.
Mismatches	Very.	+++ Maturity, forex and liquidity.	Indirect exposures. Can be excessive.
Classification and provisioning rules	Very.	+++ Hid problems.	Ever-greening.
II. Incentive Compatibility			
Licensing	Very. Foreign banks.	Indonesia	Excessive competition?
Transparency and disclosure	Very.	+++	Standards being strengthened. Can be excessive?
Orderly exit	Very.	+++ All parties bailed out in previous crisis.	Key to reduce moral hazard.
Deposit insurance	Somewhat.	+ No explicit.	Can be excessive.
P.C.A./forbearance	Very.	++	
III. Supervision:			
Integrated	Somewhat. Scarce resources.	+++ Regulatory coverage of NBFI.	Dangers weakening strong areas.
Independence	Very.		Accountability.
Cross-border	Not very.	None	May increase.
IV. Infrastructure			
Corporate governance	Very. Impact of privatization.	+++ Over-expansion, leverage, insider benefits.	
Legal framework	Very.	++	
Accounting and auditing standards	Very.	++ Enforcement rather than quality.	International standards.
+++ extremely important ++ important + not too important > Capitalization ratio should be more than suggested by the Basel Principles			

Part 3

**The Road toward European Union
Accession**

Overview

Annette De Kleine

One of the main characteristics that distinguishes the Central European economies (CEEs) from other emerging markets is their potential to join the European Union (EU). The benefits of EU membership are well known and widely remarked upon. However, while eventual membership of the EU and participation in the Economic and Monetary Union (EMU) will significantly reduce the risks to the CEEs of the types of financial crises that have affected other emerging markets over the last couple of decades, the transition period itself might engender increased vulnerability. Driven in part by the accession process, the candidate countries are liberalizing financial and capital markets, stabilizing their exchange rates against the euro, introducing fiscal discipline, and reducing inflation. These policy measures have contributed to increased economic stability and have helped attract substantial foreign capital, but policy mismanagement could expose the CEEs to a sharp reversal of these inflows. There is also a risk that disputes within the EU over reforms to its institutions, decision making procedures, budget and agricultural subsidies—which must be undertaken to accommodate an expanded membership—could delay or even derail the accession process, thus unnerving foreign investors. Before discussing these potential risks further, the main membership criteria are briefly reviewed. A summary of this section's papers, which analyze some of these risks, follows.

EU and EMU Accession Criteria

At its Copenhagen summit meeting of June 1993, the EU committed itself to admitting the CEEs¹ that had negotiated Association Agreements, provided that they could meet three criteria:

- The existence of institutions to guarantee democracy, human rights, the protection of minorities, and the rule of law;
- The existence of a functioning market economy, with the capacity to withstand the market forces and competitive pressures of the EU; and
- The ability to take on all the obligations of EU membership, including adherence to the aims of political, economic, and monetary union.

As part of the accession process, the candidate countries will need to adopt the *acquis communautaire*, the EU's existing body of laws and regulations—although they may be able to negotiate extended transition periods (derogations) on some issues. Two interrelated aspects of the *acquis* warrant particular attention—financial and capital market liberalization, and EMU.

The Maastricht Treaty (1992) established five convergence criteria for participation in the third stage of EMU (the single currency):

- Annual consumer price inflation may be no more than 1.5 percentage points higher than in the three economies with the lowest inflation rates.
- Interest rates on long-term government securities may be no higher than 2 percentage points above the rates in the three economies with the lowest inflation rates.
- The general government deficit should be no more than 3% of GDP (unless for exceptional and temporary reasons).
- The general government debt to GDP ratio should be no more than 60% (unless it is declining rapidly toward that ratio).
- The currency must be stable, trading within normal fluctuation bands against other EU currencies for at least two years.

Some of these criteria (particularly regarding government debt), were loosely interpreted in 1998 for the original 11 member countries who joined the EMU. This precedent might allow for similar interpretation for the CEEs when they seek membership in the EMU.

A Loss of Momentum on the Road to EU Membership

One of the more significant risks to the candidate countries is that the accession process may stall. At Copenhagen, the EU leaders stipulated that EU enlargement could not jeopardize the pace of EU integration. However, the EU has failed to seriously address the institutional and budgetary challenges of expansion—most notably at the Berlin summit of March 1999—inevitably delaying the accession process. Popular support for enlargement has waned in the EU member states, and even within the candidate countries there is some sense of disillusionment with the reform process. Much of the capital flowing into the CEEs has been predicated on the assumption that they will join the EU. If that assumption proves false,

there could be a sharp reversal of capital flows—including of foreign direct investment (FDI). It is worth noting that the vulnerability of the CEEs stems not primarily from their own reform programs, but from a potential lack of political will within the existing members of the EU.

Financial and Capital Market Liberalization

Although much of the EU legislation relating to financial and capital markets was written independently of the EMU treaties, they represent effective prerequisites to monetary union. The financial crises in East Asia have called into question the balance between the risks (e.g., potential instability) and the benefits (e.g., efficiency gains) of allowing for the free movement of international capital in and out of emerging markets. However, a new consensus seems to be emerging that the risks lie in the inappropriate timing and sequencing of reforms, rather than the end goal of open financial markets. A necessary first step is to ensure the structural integrity of domestic financial intermediation. There must be adequate depth and liquidity in capital markets, in addition to an effective and credible system of financial market regulation and supervision. While efforts have been made across the region to introduce such reforms, further measures are required in most countries, and there is a risk that international capital market liberalization will outpace the reform of domestic financial sectors.

Inappropriate Policies

Over the long term, the EU accession criteria are generally positive for the CEEs, since common standards facilitate trade, while foreign investors will feel more comfortable in a business environment that is based on a stable and established system, with which they are already familiar. However, these benefits might be partially offset by the high degree of regulation and lack of flexibility inherent in many EU policies (e.g., labor market, business regulation), which could dampen growth prospects in the candidate countries. There could also be a potential conflict—at least in the short term—between the nominal criteria of EMU and the process of real convergence. The latter includes the narrowing of real per capita incomes between the candidate countries and the EU, structural and institutional reforms, and improving the infrastructure. The Maastricht convergence criteria will require tight monetary and fiscal policies that may not be appropriate for developing economies—policies that could slow economic growth. Governments must judiciously balance the nominal and real targets, or risk unsettling international investors—and potentially risk undermining domestic support for EU membership.

Exchange Rate Pressures

Although candidate countries are unlikely to be able to join in the euro zone upon accession, they will probably be expected to join the European Exchange Rate Mechanism II (ERM-2), which links the euro with the non-participating EU currencies (participation in ERM-2 is voluntary). While the EU has no institutional mechanism to link the euro to non-EU currencies, many of the candidate countries already have linked the currencies to the euro, either through a currency board or a managed float against a basket in which the euro is the largest weight. As Nabli *et al* argue earlier in this conference document, countries with fixed exchange rates appear to be more vulnerable to disruptive capital flows. The continuing process of structural reforms in the CEEs will also make it difficult to calculate a suitable equilibrium exchange rate—although ERM-2 does allow for wide fluctuations bands (+/- 15% against the euro).

Summary of the Papers

The papers in this section seek to address some of these risks. In the first paper, Andries Brandsma examines the impact that the financial crisis in Russia has had on FDI flows to the CEEs, and outlines their respective fiscal and monetary policy responses. Emil Ems starts by presenting the main obligations and challenges facing the candidate countries as they prepare for EU membership. He then addresses the conflict between the demands of real and nominal convergence, and argues that concerns that the obligations for nominal convergence will undermine growth prospects are unfounded for two main reasons. First, the EU has put an emphasis on structural reform over the Maastricht criteria, and second, the process of nominal convergence will boost growth prospects in the longer term, most notably through lower interest rates. Karel Lannoo appraises the progress that the CEEs have made in making the transition to market-based financial sectors and in introducing appropriate regulatory frameworks. He finds that despite considerable progress, the CEE financial markets still need further reforms to meet the EU's *acquis* in this field. However, he suggests that full implementation of the *acquis* may stifle further development of the CEEs' capital markets. Sotirios Kollias focuses on the dynamics of liberalizing capital flows. He presents the case that capital market liberalization generates significant efficiency gains, and helps channel financing into regions with high development potential. However, he cautions against too rapid a pace of reform, and suggests that countries first need to build a sound regulatory supervisory framework, and to expose domestic financial institutions to international competition. Daniel Gros discusses the recent crises in emerging markets

and the implications for the CEEs. He argues that the costs of capital mobility are high, and that a rapid liberalization of capital flows may be inappropriate for the CEEs. He contends that the period just before full EMU membership—with full capital mobility, but fixed exchange rates—may be particularly dangerous.

Endnote

¹ The Europe and Central Asian countries that, to date, have been invited to apply for membership in the EU are: Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic, and Slovenia.

Economic Policy Responses to Capital Inflows in the Candidate Countries in Central and Eastern Europe

Andries Brandsma

In its regular assessment of the readiness for EU membership of the Central and Eastern European candidate countries (CEECCs), the Commission focuses on the consistency of policy choices and responses, rather than on quantitative criteria such as the size of foreign capital inflows. When policies are consistent and the economic situation is regarded as sustainable, capital inflows serve to finance sizeable trade and current account deficits. The fall in Russian demand for imports has exacerbated these deficits, but at the same time most CEECCs appear to have been shielded from the fallout of the financial turmoil in the world and their exchange rates have broadly moved back to where they were before the crisis broke out.

Regular Reports

At the end of 1998, the Commission adopted the first of its regular reports reviewing the progress and developments since its Opinions of mid-1997—making a new assessment of where the candidate countries stand with respect to the Copenhagen criteria for EU accession. The regular reports are accompanied by a composite paper that summarizes the economic developments.

The economies of the 10 candidate countries in Central and Eastern Europe have been negatively affected by the worsening of the international environment and the turmoil in the financial markets, but on average growth rates have remained higher than in the EU. It is now estimated that the average rate of growth in the 10 CEECCs in 1998 has been around 3%, with most individual growth rates in the range of 4–6%. Over the last two years, annual GDP growth of over 5% was observed in Estonia, Latvia, Lithuania, Poland, and the Slovak Republic. Output growth is being driven primarily by domestic demand, and by fixed investment in particular. The contrast is provided by Romania and the Czech Republic. They have experienced a fall in real GDP, which can be associated with severe deficiencies in structural reform.

Other macroeconomic trends have been favorable as well. Unemployment has been falling, although it has tailed up recently in many CEECCs as a result of the Russian crisis. Inflation has been rapidly diminishing, and is presently below the two-digit level in Slovenia, the Czech Republic, the Slovak Republic, Latvia, Lithuania, and Poland. On the other hand, the trade and current account deficits of several CEECCs are widening, which is especially worrying when government finance does not seem to be on a sustainable basis.

Foreign Direct Investment

FDI has continued to increase. Over the years, Hungary, the Czech Republic, and Slovenia have built up the largest per capita stock of FDI. More recently, countries where privatization and structural reforms have proceeded at a steady pace, or have accelerated, have started to attract high inflows. In Latvia, FDI as a percentage of GDP amounted to 6.3% in 1997, the highest in the region. In the same year, FDI into Lithuania doubled for the second year in a row. Bulgaria too has attracted high inflows, although they have abated somewhat in 1998. What these figures show is that FDI flows have not been redirected away from the countries with which accession negotiations have not yet been launched, as was feared by some.

The economic impact of the Russian crisis on the candidate countries can be expected to remain limited in the medium term for two main reasons. First, from the start of the transition process, candidate countries have progressively and successfully reoriented their trade from the former Soviet bloc to the EU. They have achieved a high degree of trade integration across the board: around 60% of their trade is already with the EU. The second and more fundamental reason is that the perspective of EU accession and the gradual implementation of the Community *acquis* has had a noticeably favorable effect on market sentiment.

The international financial markets have become more cautious on investments in emerging economies in general. Prior to the outset of the crisis, candidate countries were able to obtain substantial amounts of foreign financing on relatively favorable terms. At present, markets are providing funds only at higher costs. Countries that are perceived to have weak economic fundamentals are being affected more than others. For the candidate countries, this is a strong incentive to speed up structural reform and strengthen economic policy.

Monetary Policy

The composite paper clearly lays out the requirements in a pre-accession phase and an accession phase for the adoption of the euro by the candi-

date countries. It concludes that, with the adoption of new central bank legislation in Latvia and Lithuania and the introduction of a currency board in Bulgaria, all CEECCs except Romania should have little difficulty entering EMU in the medium term, provided that they continue with the steadfast implementation of their reform programs. Owing to the deterioration of its general economic situation, Romania's participation in EMU would still pose serious problems and cannot be foreseen in the medium term.

Bulgaria, Estonia, and Lithuania have currency boards, while Latvia's exchange rate management works out very much in the same way. The Czech Republic, Romania, the Slovak Republic, and Slovenia have floating exchange rates; the first three of these countries moved to a managed float after their currencies jumped out of their bandwidths. Hungary and Poland have maintained their crawling peg systems.

Since January 1, 1999, the euro has been the main currency in the baskets and pegs of the CEECs (except for the Latvian lats, which remains pegged to the SDR). The exchange rate policies of the countries with flexible arrangements have often followed the dual objective of getting inflation down and preserving competitiveness in the face of nominal appreciation pressures caused by the inflow of capital. Poland, for instance, has gradually widened the band of the zloty to discourage short-term capital flows, and reduced the rate of crawl in line with the targeted inflation rate. Slovenia, on the other hand, has been reluctant to liberalize capital movements in order to be able to keep the real exchange rate flat. Since the fight against inflation has been very successful in most of the CEECCs, and inflation has fallen even more than planned because of the drop in oil and commodity prices, attention has shifted to the avoidance of real appreciation. There are examples, however, of catching up EU countries in which real appreciation has actually worked as an incentive to upgrade the production of exports.

Fiscal Policy

Although trying to fulfill the Maastricht criteria would be premature and should not be a priority for the candidate countries at this stage, some of them are already on the verge of entering the virtuous cycle of credible monetary policies resulting in a reduction of the interest burden on government debt. Moreover, high economic growth and enforced tax collection have generated more government revenue than planned in some cases. This has resulted in the prospect of balanced budgets in Bulgaria, Estonia, Latvia, and Lithuania in the next few years. It is perhaps no coincidence that these happen to be countries with fixed exchange rates, but other countries are also moving in the direction of greater fiscal consoli-

dation. However, the size of the general government balance is in some cases rather heavily obscured by extra-budgetary accounts, and Romania, the Slovak Republic, and the Czech Republic have experienced setbacks in recent years.

The rather sudden fall in nominal GDP growth in 1998/1999 has made it more difficult to achieve deficit targets. Several CEECC governments adjusted their expenditure plans in the process of preparing their budget for 1999. At first sight, such practices may appear to have pro-cyclical effects on economic growth. On the other hand, they do impose the discipline of looking at the revenue side first, and, by keeping the deficit low and sustainable, they make room for private sector investment. In doing so, they enhance the attractiveness of the country to foreign investors, and help to curb as well as finance any widening of the current account deficit. In fact, it becomes increasingly clear that fiscal policy adjustment is the most effective instrument to diminish external imbalances.

On the Way to Accession

From different starting positions, the candidate countries have made their own policy choices. None of them can be a guarantee for success under adverse circumstances. In order to continue to benefit from the positive image effects of future EU membership and attract foreign direct investment, candidate countries need to follow fiscal and monetary policies that are not only consistent as a policy mix, but also in line with the structural reforms and other accession requirements, including the orderly liberalization of capital movements.

EMU and Accession

Emil Ems

Introduction

For more than a decade the European Union (EU) Member States have prepared for the advent of EMU. This process started with the full liberalization of capital movements, and continued with a period of liberalization and convergence that culminated with the introduction of the euro and the establishment of the European Central Bank. Concurrently, the Central and Eastern European countries (CEECs) embarked on the path toward becoming fully fledged market economies and Members of the European Union. The EU gave its approval at the European Council at Copenhagen in June 1993: the CEECs could become members as soon as they were able to assume the obligations of membership and to satisfy basic economic and political criteria.

Besides a gradual adoption of Community rules and institutions—which is foreseen in the various agreements between the EU and the CEECs—the latter will have to undergo a process of economic “catching up,” through high and sustainable growth during a prolonged time period, of one to several decades. Through this process they will eventually achieve standards of living approaching those in Western Europe, which is important for a harmonious cohabitation within the EU—that is, for “economic and social cohesion.” This paper discusses whether the specific demands for assuming the obligations of EU membership are compatible with rapid and sustained growth prospects in the CEECs.

The first section gives a brief overview of the process toward EMU. The following section deals with the intrinsic properties of high and sustained growth in transition countries. Thereafter, the conditions for membership expressed by the EU Council and the EU Commission are presented, as applicable before and after accession. In particular, conditions relating to membership in EMU are discussed. The final sections analyze the consequences of satisfying the economic conditions concerning EU accession for the catching-up process. Although accession generally is expected to be beneficial for growth in the CEECs, there could be possible “stumbling blocks” embedded in the conditions posed for entering the EU.

I. The Path toward EMU

Although there is a history of early efforts to achieve monetary union within the EU, the process, which finally achieved a single currency, started in earnest with the Delors Committee. This Committee presented the basic strategy of introducing the single currency in phases. The Maastricht Treaty subsequently implemented this strategy.

The decision to launch the Delors Committee has to be seen in the context of the Single Market program, in particular the efforts to achieve financial integration by opening up financial markets and by fully liberalizing capital movements within the EU. The latter was codified by a Council Directive in 1988, which introduced the complete freedom of capital movements by 1990.¹ Politicians, as well as economists, became increasingly aware of the fact that it would be difficult, if not impossible, to retain the European Monetary System (EMS) in the long run, in that changed environment. The only way to achieve lasting stability in nominal exchange relations was to establish a single currency. Thus the political aim to establish monetary union was reinforced by the economic momentum of financial integration.

The efforts to achieve EMU were drawn out over more than a decade. The gestation period was not easy, the road being paved with political and economic difficulties. Among the latter were pronounced financial crises in some Member States (and Member States-to-be) at the beginning of the 1990s. Those had their roots in monetary expansion in the wake of financial deregulation and capital liberalization, which, accompanied by the prolonged economic boom toward the end of the preceding decade, led to speculative bubbles in asset prices. The subsequent economic downturn, accompanied by substantive increases in interest rates in the wake of the German reunification, brought asset inflation to an abrupt halt, which induced banking crises in several West European countries. Concurrently, currency crises rendered the exchange rate mechanism (ERM) in its traditional form—controlled narrow bands of permitted fluctuations—untenable and led to its reconstruction, introducing ample leeway for short-term variations in the nominal exchange rates within the EMS. Thus the financial crises were compounded by exchange crises.

Also in fresh memory are the difficulties that Member States experienced when trying to abide by the demands on fiscal policy laid down in the Maastricht Treaty. Only after considerable efforts on the verge of the final deadline was it possible to bring fiscal policies in line, with public (general government) deficits being brought to within the requested 3 percent limit.

From these experiences, some insights can be gained of relevance for the accession countries.

- The accession countries may need considerable time to prepare for the adoption of the single currency. They will probably become Members of EMU with a derogation at accession.
- Preparing for accession and preparing for the single currency during the “derogation period” may not be a cruise in calm waters. Those preparations will have to be made with the full cognition of possible crises, caused either by the preparation process itself or by external forces. In fact, the CEECs have already experienced the latter in 1998, with the Asian, Russian, and Latin American crises affecting those countries through contagion.
- Having gone through a financial or currency crisis does not disqualify a country from entering EMU. More often than not, such crises act as an alarm bell indicating the need for change as well as a catalyst for making the change come through, be it in the form of reforming economic policies or of putting necessary legal and supervisory infrastructure in place. By addressing those issues properly, entry conditions would improve compared to the situation before such crises occur.

It is clear that there is a difference between creating EMU and joining it at a later stage. Still, we believe that joining later will not be easier for the CEECs than creating the monetary union was for the existing Member States. Neither can one exclude the possibility of financial and monetary instability on the CEECs’ way to the “safe haven” of the euro.

II. The Fundamentals of Catching Up

The CEECs have to carry a heavy load after more than 40 years of living within a centrally planned economy; their national income per capita (even in PPP terms) was at an average less than half of that of Western Europe at the start of the transition. No wonder that CEEC citizens have high expectations and hope to achieve Western living standards as soon as possible.

A simple calculation shows the magnitude of the task. Assume that the mature economies of Western Europe experience, in the future, a growth rate (per capita) of 2.5 percent. Even with a rate three times as high, it would take one decade and a half for a CEEC to “catch up,” if it enjoyed initially only half the Western income.

Still, the situation is far from hopeless. As Nabli has shown in his paper,² the situation of the CEECs in the early 1990s, at least for the first group of Candidates for EU accession, does not compare unfavorably to that of Greece, Portugal, and Spain in the beginning of the 1980s. Thus, the success stories of earlier accession countries with standards of living substantially below the West European average can certainly be repeated, provided the conditions are as favorable for the latecomers as for those earlier countries.

To be able to judge the conditions stemming from the accession process in that context, we have first to look into the intrinsic features of high and sustainable growth in transition economies. Without going into detail concerning the theory of growth, the major relevant properties can readily be identified as the following:

- High and varying differences in productivity growth between sectors and regions, with real currency movements in the medium to long term.
- Continuing need for high investments in infrastructure.
- Continuing need for supply of foreign capital, coupled with ample sources of domestic capital through domestic intermediation channels.
- High dependence on the credibility of the growth process—both abroad and domestically.

With regard to the first point, experience shows that high growth rates (of 5 percent and above) usually are not achieved through a well-balanced development of all sectors of a transition economy. A common pattern seems to be that growth initially is mainly export-led, with consistently high productivity increases in tradables. Wages in the tradable sector tend to rise with that sector's productivity. The non-tradables sector typically is lagging behind. If the labor markets are flexible enough to allow for at least partial wage equalization between the two sectors, the outcome will be a trend of real appreciation of the exchange rate. That process will continue as long as productivity in tradables rises faster (relative to the non-tradables sector) than that in mature economies. The phenomenon is known as the Balassa-Samuelsson theorem.³

Most CEECs have indeed experienced a trend of real appreciation during the 1990s, the trend being most pronounced in the countries that started with the lowest national incomes per capita and subsequently experienced high growth rates. Of course, one cannot discard alternative expla-

nations for the phenomenon. Capital inflows into the CEEC have also contributed to real appreciation by causing, in some countries, temporary "overshooting" in the nominal exchange rate, with subsequent corrections. Nonetheless, there is sufficient evidence to count on continued trend-wise appreciation in the CEECs for as long as there is high growth in these countries.

The second point hardly needs an explanation. Even after 10 years of transition, the dearth of appropriate infrastructure is evident in all CEECs. This concerns not only physical capital such as roads, rails, energy networks, and communication networks. It is equally manifest in the need to build up the legal and institutional infrastructure for a well-regulated market economy. Also, the institutions providing public services such as education and health care need substantial investments, not to forget the huge costs of reforming the social security systems for the aged and retired. Even if privatization and modern financing techniques (combined with charging for services rendered) will keep part of the financing needs outside the public budget, a substantial part of the investments involved will still have to be covered by the latter.

High growth translates into a high investment rate. If we are to judge by the experience in East Asian countries at comparable stages of development, or the Mediterranean accession states, investments should amount to at least 20 percent of GDP. As pointed out by Nabli,⁴ the savings rate in the CEECs lies still substantially below those figures. Thus for some time to come, there is a need for large net foreign capital inflows to sustain the growth process. We can expect this need to remain for at least another decade. However, as national income increases, so should domestic savings, leading to an increasing share of domestic financing. In order to underpin this trend, the domestic financial infrastructure will have to be built up in parallel, so that private domestic savings are being stimulated and channeled efficiently—as should international borrowing—into the production sectors of the economy.

Since foreign net capital inflows will play an important part in the growth process of the CEECs for at least another decade, it is important that those countries are able to maintain credibility in the process. This puts high demands on the consistency and efficiency of public policies, and on the legitimacy of the institutions underpinning the economic and political system. The mirror image is of course to obtain credibility for the growth process from the own population. It is understandable that the CEEC citizens desire consumption levels close to that of Western Europe without delay. Getting acceptance for deferring part of the present consumption to investments demands not only a high degree of pedagogical talent but also the capacity to deliver promises made about returns in the future.

III. The Economic Criteria for Accession

The Copenhagen Summit in 1993 agreed on the basic criteria that the Association countries had to satisfy to be eligible for membership. In the economic context it called for

“the existence of a functioning market economy as well as the capacity to cope with competitive pressure and market forces within the Union.”

In addition, membership requires

“the ability to take on the obligations of membership, including adherence to the aims of political, economic and monetary union.”

Progress in the fulfillment of these criteria is being examined in the Europe Agreement Bodies, as well as within the Regular Progress Reports issued by the Commission.⁵ Various Commission schemes are aimed at providing assistance to the Association countries in that regard.

The operational interpretation of these criteria, as they are being used by the Commission in its follow-up of the progress in each country, is presented in box 1. That follow-up is not limited to observing the progress of legal reform (adoption of the *acquis*), but gives as much attention to the capacity of implementing the new legal and institutional system, to the carrying out of public policies (in particular economic and monetary policies), and to the manner in which the economy is functioning with the new system in place.

In the EMU context, it is clear that the Commission, following the Copenhagen summit, is giving structural economic reform the highest priority, rather than insisting on early fulfillment of the criteria necessary to adopt the single currency within the framework of EMU. Nevertheless, certain elements of EMU can already be adopted pre-accession and have to be in place at the time of accession, notably, liberalizing capital movements; establishing the independence of the national central bank and its orientation toward price stability; and banning central bank financing of public debt, as well as privileged access of public institutions to financial institutions.

It is equally clear, that the Commission does not expect CEECs to adopt the single currency immediately upon accession. It foresees a derogation period for each country (of a length depending on each country's specific circumstances) in accordance with the Treaty Articles concerning EMU.⁶ But, already during that period, some demands on economic and monetary policies will have to be satisfied. In the monetary field, exchange rate policy becomes a matter of common interest and partici-

Box 1. Criteria for Membership

The existence of a functioning market economy.
To be met as soon as possible.

- Equilibrium between demand and supply is established by the free interplay of market forces; prices, as well as trade, are liberalized
- Significant barriers to market entry and exit are absent
- The legal system, including the regulation of property rights, is in place
- Macroeconomic stability has been achieved including adequate price stability and sustainable public finances and external accounts
- Broad consensus about the essentials of economic policy
- The financial sector is sufficiently well developed to channel savings toward productive investments

The capacity to withstand competitive pressure and market forces within the Union.
To be met in the medium term.
Follow-up:

- The existence of a functioning market economy, with a sufficient degree of macroeconomic stability for economic agents to make decisions in a climate of stability and predictability
- A sufficient amount, at an appropriate cost, of human and physical capital, including infrastructure (energy supply, telecommunications, transport, etc.), education and research, and future developments in this field
- The extent to which government policy and legislation influence competitiveness through trade policy, competition policy, state aids, support for SMEs, etc.

The ability to take on the obligations of membership, including adherence to the aims of [political,] economic, and monetary union.
To be met during the respective phases below:

- **Pre-accession phase**
 - ✓ Completion of the orderly liberalization of capital movements
 - ✓ Prohibition of any direct public sector financing by the central bank and of privileged access of the public sector to financial institutions
 - ✓ Alignment of the national central bank statutes with the Treaty, including the independence of the monetary authorities and the respect of the price stability goal
- **Accession phase**
 - ✓ Adherence to the aims of economic and monetary union

- The degree and the pace of trade integration a country achieves with the Union before enlargement. This applies both to the volume and the nature of goods already traded with member states
 - The proportion of small firms, partly because small firms tend to benefit more from improved market access, and partly because a dominance of large firms could indicate a greater reluctance to adjust
- ✓ Treatment of exchange rate policy as a matter of common interest and, later, participation in the ERM
 - ✓ Treatment of economic policies as a matter of common concern and coordination of economic policies through participation in Community procedures
 - ✓ Avoidance of excessive government deficits and adherence to the relevant provisions of the stability and growth pact
 - ✓ Further adaptation of the national central banks' statutes with a view to integration in the ESCB
 - ✓ Progress toward the fulfillment of the Maastricht convergence criteria
- **"Final euro phase"**
 - ✓ Fulfillment of the Maastricht criteria and adoption of single currency

Source: EU Commission (1998), Reports on Progress towards Accession by Each of the Candidate Countries—Composite Paper.

pation in the ERM is expected eventually. Furthermore, excessive public deficits should be avoided and the provisions of the stability and growth pact in all essence adhered to. The newly acceded countries are also expected to make progress in the fulfillment of the convergence criteria.

IV. Implications for the Growth Process

Work on satisfying the Membership conditions outlined above is well on its way in the Association countries. It follows broadly the suggestions outlined by the Copenhagen process. Much of the adaptation of legal conditions to the *acquis* is accomplished. The process now seems to be increasingly geared toward implementation. The latest progress report issued by the Commission⁷ concludes that a substantial number of Candidate CEECs (the Czech Republic, Estonia, Latvia, Hungary, Poland, and Slovenia) can be regarded as functioning market economies, even if some important features, such as financial markets, still need to mature. They can also be expected to withstand competitive pressure and market forces within the Union at least in the medium term. The Slovak Republic and Lithuania are expected to join the group soon, provided that already decided reforms are being implemented. The remaining countries have a longer way to go. Also important, Accession countries, at least the above mentioned, exhibit clear political commitments to continued market reforms.

Both the progress achieved, and the way it is monitored by joint bodies under the Europe Agreement and the Commission, contribute greatly to the build-up of credibility in the economic systems of Accession countries. Countries that follow the adaptation course consistently are already experiencing an increasing trust from the part of the international financial community.⁸ Experiences during the recent financial crises have also shown that contagion is lower and its damaging consequences smaller for the more advanced countries in the accession process. This effect will become more pronounced the closer the date of Membership for a Candidate.

In this general sense the accession process, painful as it may be in terms of legal, institutional, and political adjustments, is already showing its beneficial effects on growth. The catching-up in CEECs is highly dependent on credibility for the growth process both abroad and domestically. In both these respects, the accession process delivers, and will do so increasingly as accession comes closer. Granted, there is a downside to these beneficial effects. If an accession country would start to backslide in its progress and renege from its accession commitments, the subsequent loss in credibility may well be far more severe than if the accession process had not been started in the first place.

Still, there is the question whether the specific economic demands on accession countries generated by the obligations of membership—in particular the demands concerning EMU, are as conducive to the catching-up process as are the more general demands on a functioning market economy and the ability to withstand competitive pressure and market forces. Here we have to distinguish between, on the one hand, the broad effects on the consistency and efficiency of monetary and fiscal policy, which certainly will be reinforcing the general credibility build-up described above and, on the other hand, demands more closely linked to eventually adopting the single currency.

In the latter context, the following obligations deserve special interest:

- The requirement of free capital movements;
- The option and (eventually) obligation to become a Member in ERM2;
- The demand to observe price stability; and
- The demands of the stability and growth pact.

V. The Approach toward Free Capital Movements

The recent financial crises in Asia and Russia have reopened an old discussion: whether it is worthwhile to keep some restrictions on capital movements to guard the domestic economies from undesirable monetary influences from abroad. To analyze this and related issues in the present context, some questions need to be answered. What are the demands concerning liberalization of capital movements placed on the accession countries? How far has the liberalization process gone until now? Are the remaining restrictions efficient in sheltering the domestic economy from unwanted external monetary influences? And finally, what are the costs of maintaining restrictions in order to counter future crises?

As shown in box 1, the EU calls for an orderly liberalization of capital movements that should be completed by the date of accession at the latest.⁹ There are no precise demands on how and in which order this liberalization should take place. However, some indications can be derived from the Europe Agreements, the so-called Association Partnerships as well as from the regular Progress Reports issued by the Commission.

Although the Europe Agreements differ slightly in how capital movements are treated, all of them include the obligation that foreign payments should be liberalized early on (Article VIII, liberalization), as should capital movements related to the establishment of companies and

self-employed professionals, including the acquisition of real estate related to such establishment. Further liberalization is foreseen, but not requested, in the Europe Agreements, and a standstill clause is usually applied in that context.

In the Accession Partnership documents and the Regular Progress Reports, there is an implicit recommendation that further liberalization, if carried out gradually, should continue by liberalizing first the medium-term transactions (mostly portfolio investments) and finish by liberalizing the short-term transactions (operations on the money market, short-term operations on deposits, etc.).

At present the CEECs differ in their liberalization status. We can distinguish between three groups. The Czech Republic, Estonia, Latvia, and Lithuania have removed practically all restrictions¹⁰ on capital movements. The second group consists of Poland and Hungary, who maintain restrictions basically only on short-term capital transactions. The remaining countries apply more or less comprehensive systems of exchange control.

Interestingly, there is no clear correspondence between the status of liberalization and the choice of monetary/exchange policy. Just to mention some examples, both Estonia and Bulgaria have a currency board, in the latter case combined with exchange control. Latvia pegs its currency without exchange control. Hungary and Poland apply a crawling peg together with control of short-term capital transactions. The Czech Republic has a floating currency without exchange control (its peg had to be abandoned following an exchange crisis) and Slovenia applies a managed float with full exchange control.

The experiences from the Asian and Russian crises and their repercussions on the CEECs indicate that only a comprehensively restrictive system can shelter a country completely from external monetary shocks originating from contagion.¹¹ The opening up of medium-term transactions, in particular concerning portfolio investments, provides already ample channels for capital inflows and outflows, and contagion can be transmitted into swings on the domestic market for financial assets. In addition, derivative instruments such as swaps, options, and forward contracts increasingly blur the distinction between medium- and short-term transactions, rendering the shield provided by short-term exchange control increasingly inefficient.

What short-term restrictions still can accomplish, is to render short-term flows more expensive and therefore to constrain the creation of domestic shocks through extensive short-term borrowing abroad. Even in this case, the use of derivatives (e.g., on the domestic exchange rate) traded on the domestic market can increasingly substitute for foreign-short-term lending and lead to comparable effects on the asset market.¹²

Crises aside, the traditional argument for capital controls has been to maintain the independence of domestic monetary policy and to shelter a fixed exchange rate policy. Even here, the experiences with fixed exchange rates since the breakdown of the Bretton Woods system clearly demonstrate that only two extreme exchange rate policy regimes are sustainable in the long term: a rock-bottom currency board or a floating exchange rate. In the first case, monetary policy is totally geared toward an imported anchor; in the second case, monetary policy must be based on a domestic monetary anchor, with a monetary aggregate target or an explicit inflation target.

Many CEECs apply a pegged exchange rate in order to anchor their monetary policy to a foreign currency (or currency basket). Without accepting complete monetary dependence they still expect this anchoring to contribute to rapid disinflation. In contrast to the currency board, a unilateral peg allows a country to moderate the influence of the foreign anchor. By choosing an appropriate crawl and more or less narrow pegging bands, a certain "fine-tuning" of that influence is possible. Is it necessary or sufficient to have exchange controls to maintain such pegs?

As was argued above, it is certainly not sufficient. If the economic fundamentals are getting out of line, there are still ample channels for currency speculations to attack a pegged currency. On the other hand, if the domestic policies are well managed and aligned to those of the country that issues the anchor currency, a peg can often be maintained over long periods of time even with free capital movements.¹³ All in all, a pegged currency regime has always to be regarded as a temporary measure, which would ultimately have to be converted into one of the sustainable regimes, mentioned above.¹⁴

Having noted that the efficiency of remaining capital controls is evaporating over time, once the liberalization process has begun, what can be said about the costs of maintaining capital controls? These costs consist mainly in stifling the development of domestic financial markets. In order to maintain full exchange control, in a globally integrated financial system, the domestic financial institutions have also to remain tightly regulated. Such regulation, although aimed at inhibiting foreign transactions, has the detrimental side effect of sheltering the domestic financial sector from all outside competitive pressure. Thus one of the main driving forces for financial sector reform is lacking—with detrimental consequences for the channeling of savings to the most productive sectors of the economy.

With partly liberalized capital movements, the effect is not so pronounced. Nonetheless, even in a system where only short-term restrictions remain, the development of the financial sector is hampered. Since short-term restrictions lose their efficiency over time, with financial institutions attempting (and succeeding) to circumvent those restrictions with new

financial instruments, the government and the central bank are, as guardians of the system, increasingly forced to regulate and stifle all such financial innovations. In effect, they are preventing financial institutions from preparing themselves for the eventual opening-up of competition, once the restrictions are lifted. Thus, maintaining capital restrictions for too long will surely have a detrimental effect on growth in the accession countries.

EU demands for free capital movements cannot, on balance, be seen as a stumbling block for growth in accession countries. It is understandable that countries that apply a currency peg wish to maintain that peg as a forceful outside anchor to conquer inflation as long as price instability remains a dominating economic problem, and they wish to keep some capital restrictions to underpin this policy. This is certainly motivated if price increases are still in the two-digit range. But once inflation is successfully dampened, growth considerations should prevail and a complete removal of exchange control undertaken. The recent financial crises cannot be used as an argument for delaying such liberalization. Rather, experiences from these crises should be used to underpin the process. *The main lesson from them is that the financial system in most accession countries still exhibits weaknesses, which have to be addressed pari passu with capital liberalization.* This is as it should be. The "capacity to withstand competitive pressure and market forces within the Union" is requested also from the financial sector as an integral part of the confidence building process mentioned earlier.

VI. Membership in ERM2

When the EU constructed the new exchange rate mechanism for derogation countries within the EMU, it had the recent experiences with ERM in recent memory. Based on those experiences, ERM2 is equipped with properties that aim at avoiding currency crises of the type encountered at the beginning of the 1990s. In the present context the following characteristics are of interest:

- Participation in ERM2 is not an obligation at the start of accession, but it is an option and encouraged.
- The basic arrangement within ERM2 is a central rate against the euro, around which the currency is allowed to fluctuate by 15 percent in either direction. The central rate can be changed if fundamentals demand it and the ECB has the right to request such an adjustment.¹⁵
- Narrower fluctuation bands can be arranged by agreement with the European Central Bank.¹⁶

- Participation is ultimately demanded, since currency stability within ERM without devaluation during at least two years is one of the convergence criteria for adopting the single currency.

Given the considerable flexibility provided by these characteristics, the formal demands connected with ERM2 could hardly be considered an obstacle to a prolonged period of growth in the accession countries. On the other hand, there is always the risk that some accession countries are led into misalignments of their economic and monetary policies by the (unfounded) belief that Membership in ERM2 at the early stages of accession would be an appropriate substitute for a domestic monetary anchor.

This risk is highest in countries, that delay liberalization of capital movements until the date of accession and strive to enter immediately into an agreement on narrow fluctuation bands with the ECB. An abrupt liberalization of capital movements, accompanied by an equally abrupt deregulation of the financial sector to align the legal system to that of the EU could lead to an exaggerated domestic credit expansion, similar to that in the Nordic countries at the end of the 1980s. By anchoring the currency to the euro in a narrow band, the country would at the same time abandon its domestic monetary policy tools and would have to rely solely on fiscal policies to counter the build-up of a speculative asset bubble and subsequent financial crisis.

To a lesser degree, but equally relevant, the above applies for countries that upon accession would enter into ERM2 with narrow bands coming from a floating regime with a domestic anchor, which would be supplanted by the currency arrangement. As noted before, high growth is basically an unbalanced process. We can therefore not exclude currency crises in such a set-up owing to temporary decreases in confidence in the country's development. Such crises could easily lead to temporary breakdowns in the exchange arrangement, with substantially negative effects on the real economy. With more flexible arrangements (letting the currency fluctuate within the basic bands of ERM2) shocks of that kind are partly alleviated by compensating exchange rate movements with less pronounced real effects.

Also, countries with a currency board that is maintained at accession are subject to the risk of crises in the form of capital flow reversal and sharp interest rate changes. But since such an economy is completely geared toward an external monetary anchor, its institutional set-up would be more flexible from the outset. Especially if the currency board has been maintained for a considerable length of time before accession, the economy will be prepared to adapt more quickly and flexibly to external shocks, in particular monetary shocks, since it has been forced to do so through earlier shocks, domestic monetary policy tools being absent,

and the possibility of reintroducing such policies being prohibited by the underpinnings of the currency board.

This leads us to the conclusion that immediate membership in ERM2 is not an obstacle to continued growth in accession countries, provided that those countries put the flexibility of the mechanism to good use. In particular, countries that until accession apply restrictions on capital movements, should be encouraged to enter the ERM2 with broad fluctuation bands and learn to exploit the independence of their Central Banks by applying a sound domestic monetary anchor. Once their economies, in particular the financial sectors, are adjusted to the new conditions of open domestic financial markets, a tightening of the fluctuation bands could be carried out more safely prior to adopting the single currency.

VII. The Demand to Observe Price Stability

The aim to maintain price stability in the EU is one of the cornerstones of the Maastricht Treaty. The European Central Bank has as its main task to safeguard that stability. The operational definition of this goal, as expressed by the ECB, is to keep price increases below 2 percent.

As box 1 shows, the accession countries are requested to respect the price stability goal. However, no immediate compliance with the ECB target for price stability is called for. The criteria of a functioning market economy demand "adequate price stability." Concerning demands relating to EMU Membership, the national central bank should in the pre-accession phase "respect the price stability goal" and, during Membership, an increasing alignment of the country's inflation with the level requested for adopting the single currency is implied by the convergence criteria.

Having said this, it is clear that major efforts should be made to get inflation under control early on. Two-digit inflation is still prevailing in some CEECs. The first priority for those countries is to guide price increases down, as speedily as possible, to the one-digit level. Once this is accomplished the next step is to consider what might be adequate levels of price stability in the remaining pre-accession phase, as well as during the derogation period within EMU.

This strategic question cannot receive a clear answer applicable to all accession countries and to the whole period concerned. However, two general arguments advise against trying to reach the Community standard at an early stage of that period.

The first argument relates to the fact, mentioned several times before, that a process of high growth brings with it large structural changes that differ between the various sectors and regions of the economy. This puts severe demands on the ability of the economy to accommodate large

changes in relative prices of goods, services, and production factors. By experience, such changes in relative prices are more easily accomplished in an environment of (moderate) inflation than in an environment of complete overall price stability.¹⁷

Second, we have to consider the fact of trend real appreciation during the period of high growth. For countries with a floating exchange rate, part of this trend will be manifested in nominal appreciation. Countries with a currency board, a fixed exchange rate, or that are members of ERM2 with narrow fluctuation bands would be forced to experience trend domestic inflation higher than that in EU Member countries. If such countries would try to counter this trend by restrictive fiscal policies, this would surely have the effect of stifling growth and slowing down the catching-up process.

In fact, these two arguments weigh heavily also against attempting to adopt the single currency at an early stage of the catching-up process. The convergence criteria that have to be fulfilled on the way in include both price stability and stability in the nominal exchange rates simultaneously. If we believe the Balassa-Samuelson theorem to hold for the CEECs during their catching-up process, we are forced to draw the conclusion that complete abidance by both criteria should be postponed until the time when the catching-up process is considerably more advanced than at present.

The above should not be interpreted as inviting laxity concerning inflation in accession countries. Applying a firm and consistent inflation target would be as essential for them as for the Member States. In fact, if their target would exceed the latter by some percentage points, for instance, if it would center on an inflation about 5 percent, much more attention would have to be given to countering the ever-present pressure for accelerating price changes.

EU demands are phrased in a manner that enables the accession countries to bring inflation under control under their own terms and to maintain price stability adequate for their specific circumstances during a sufficiently long time period so as not to endanger their growth process. Similar to our point earlier concerning membership in ERM2, a possible risk for the growth process could arise rather from the ambition of accession countries to adopt the single currency early on and let their policies be guided by this ambitious goal.

VIII. The Demands of the Stability and Growth Pact

Another cornerstone of the Maastricht Treaty is the aim to maintain fiscal discipline in the Member States. This is expressed as part of the convergence criteria but, more important in the present context, also as part of

the general obligations of the Treaty that have to be met by the countries under derogation as well as by the countries that have already adopted the single currency.

The Treaty Articles, as interpreted and reinforced by the Stability and Growth Pact call broadly for the following:

- Public (general government) debt should normally not exceed 60 percent of GDP.
- Public deficits should not exceed 3 percent of GDP, unless exceptional circumstances allow for it.
- The public budget should be in balance or in surplus over a normal conjunctural cycle.

However, there is some leeway in applying these obligations to the accession countries. Before accession they have to satisfy more flexible demands such as “macroeconomic stability.... and sustainable public finances.” At accession, and as long as they are derogation countries, they are subject to “the relevant provisions of the stability and growth pact.”

Keeping in mind that the accession countries may remain countries with a derogation for a considerable time span—and will still be in the catching-up phase during most of that time span—will there be a need for the leeway indicated above?

Given the huge needs for investments during the catching-up phase, in particular the need for investments in infrastructure, the norm of balance or surplus in the public finances could be considered an obstacle to high growth and deserves closer analysis.

Leeway in observing that obligation should not be considered an open invitation to the CEECs to indulge in fiscal laxity. On the contrary, the credibility of fast-growing transition countries is easily put in question if the public sector is conceived as being irresponsible.¹⁸ Therefore the accession countries will indeed have to keep rather strict debt limits. In particular, surpassing the 60 percent limit for the public debt to GDP ratio would be a strong signal to the financial markets that fiscal discipline is endangered; far more so than for the existing Member States that have underpinned their credibility by a long history of full debt servicing.

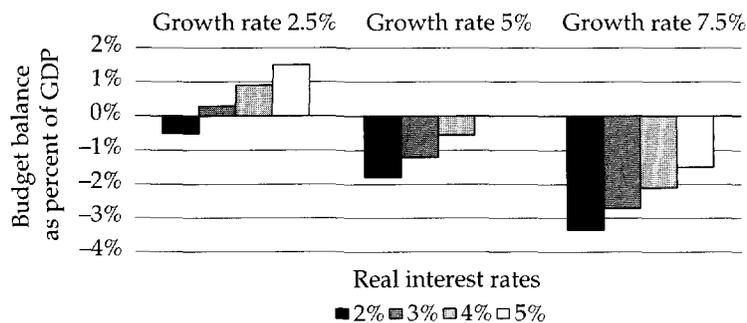
On the other hand, it may be possible for a fast-growing accession country to continue borrowing at that limit, whereas the more mature West European economies already would need a primary budget surplus in order to sustain their public finances. For instance, with a high growth rate of 5% and a real rate of interest of 3%, a primary budget deficit of somewhat over 1% of GDP would be sustainable in the medium to long-

term. In contrast, a more mature economy, with a growth rate of 2.5%, would have to obtain a primary budget surplus to keep within the 60% public debt limit (figure 1).

Unfortunately, this simple calculation disregards the difference in the real interest rate between the current Member States and the incumbents. Rates are still considerably higher for the latter. The question is whether that difference will remain in the medium to long term. Real interest rates typically rise during phases of rapid disinflation but tend to fall back again once a more steady inflation regime has been established. Still, we cannot expect the difference to disappear even in the medium term. Risk premia will remain and abate only gradually as accession countries approach the adoption of the single currency. A counter-acting factor is the trend of real appreciation of the currency, but this will probably not be enough to completely outweigh the negative load of the risk premium.¹⁹ Even so, there will probably be some room for public borrowing without endangering the sustainability of public finances, especially for countries with initially low public debt ratios. This will have to be kept in mind when applying the Stability and Growth Pact to the acceding countries in the early stages of accession.

If this is done, the demands for fiscal discipline will not be an obstacle to the growth process in accession countries. Even without the Community discipline, the financial markets will force those countries to keep public borrowing within reasonable limits. The prospect of accession and the accession itself will assist in keeping real interest rates in line and may thereby even increase the room of maneuver for public borrowing compared to a situation where accession would not be in the picture. Part of the investments in infrastructure may also be financed by

Figure 1. Sustainable Public Budget Balance, with Varying Growth Rates and Real Interest Rates at a Debt/GDP Ratio of 60 Percent



Community contributions within the existing or future funds for structural development, which will be of further assistance. In addition, private financing is increasingly found to be a suitable solution to the need to improve infrastructure without burdening the public budget.

Conclusions

After an initial trough in growth at the start of the transition process—when the institutions of the old economic system had to be dismantled and new institutions had to be established—growth took off in most CEECs and the initial losses in living standards are, at the end of the first transition decade, about to be recuperated. The CEECs now have to embark, during the next decade at least, on a path of high and sustainable growth in order to obtain standards of living closer to those in Western Europe. In contrast to other transition countries, but like the former Mediterranean accession countries, they will be able to reinforce the credibility of that growth process by adopting the legal and institutional system underpinning the West European market economies. The support provided by this takeover is the most important benefit by far to be gained from acceding to the European Union.

The Maastricht Treaty has introduced rules on increased coordination in economic policy, in addition to introducing the common monetary policy applied within the single currency area. The Treaty implies specific obligations concerning the carrying out of fiscal and monetary policies, in particular when Member States move closer in time to the adoption of the single currency. There are fears that these obligations could threaten the process of high growth much needed in the accession countries.

These fears are broadly unfounded. The Community bodies have emphasized that the CEECs, in the pre-accession phase, should put highest priority on structural reform, rather than insisting on early fulfillment of all the obligations of EMU Membership. They have also made it clear that they do not expect an immediate adoption of the single currency upon accession. They foresee derogation periods for each country, according to its specific circumstances. Our analysis has shown that obligations to fulfil under derogation allow for appropriate flexibility under most circumstances, when dealing with accession countries.

Risks for the high-growth scenario arise rather from accession countries being led into misalignments of their economic and monetary policies by trying to attempt an early adoption of the single currency. While there are undoubtedly considerable long-run advantages to be had from being part of the single currency, ambitious efforts to fully comply by the entrance criteria, early on upon accession, would inhibit important driving forces for economic change necessary for growth.

Endnotes

¹ Greece, Ireland, Portugal, and Spain were permitted to maintain capital restrictions until 1992/95.

² Nabli M. et al. (1998), "Financial Integration, Vulnerabilities to Crises and EU Accession in Five Central European Countries." World Bank. An abridged version of that paper is included in this conference document.

³ In Scandinavia, the Balassa-Samuelsson theorem has been the basis for the "Aukrust-model" (Norway) and "EFO-model" (Sweden). These models were used to derive the increase in wages compatible with international competitiveness and the domestic inflation that would result from that increase with fixed exchange rates.

⁴ See endnote 2.

⁵ EU Commission (1999), *Regular Report from the Commission on Progress towards Accession by Each of the Candidate Countries—Composite Paper*.

⁶ After the completion of phase 3 of EMU, on 1 January 1999, countries acceding to the EU will immediately become EMU Members, adopting the full EMU *acquis*. However, the EMU *acquis* includes the possibility of derogation from part of its obligations, if the acceding country does not fulfil the convergence criteria necessary for embracing the single currency.

⁷ See endnote 5.

⁸ See the paper by Claessens, Oks, and Polastri in this conference document.

⁹ Of course, there is the possibility to apply for a temporary derogation concerning some types of capital movements during early stages of Membership. Such demands for derogation periods would typically encompass inward direct investment in sensitive sectors or acquisition of some types of real estate. Such exemption aside, the EU's expectation is that capital movements will have been fully liberalized by the date of accession at the latest.

¹⁰ Strictly speaking, there are some restrictions remaining, in particular concerning direct investment and acquisition of real estate in sensitive sectors, but this does not affect the discussion in the present context.

¹¹ The strength of the contagion effect would, of course, depend on the fundamentals of the economy, not to forget the functioning of the domestic financial system.

¹² For example, in Hungary, a major part of the domestic brokerage firms became insolvent owing to a temporary domestic market collapse in derivatives on the Forint in autumn 1998.

¹³ Austria pegged its currency to the DEM during about two decades before entering the single currency, with capital movements being free during the second decade.

¹⁴ After accession, there will also be the options of joining the ERM and eventually adopting the single currency. This will be discussed below.

¹⁵ With such broad fluctuation bands, the arrangement is close to a managed float regime. Participation in such a scheme necessitates a domestic monetary anchor.

¹⁶ This leads to the question whether a currency board arrangement can be carried over into ERM2 at accession. Since a currency board is the borderline case of narrowing fluctuation bands, this should be possible by agreement with the ECB. If agreement is not reached, a country could still maintain a currency board (even geared toward the euro) without entering ERM2 at accession. There would then, of course, be no support by the ECB for the scheme. On the other hand, a rock-bottom currency board would not need that support.

¹⁷ An inflation of 2 percent or less can be interpreted as price stability, since statistics on prices usually are unable to fully capture quality improvements in goods and services.

¹⁸ A recent example is the currency crisis in Brazil.

¹⁹ The difference in the real rate of interest can be written as $\Delta r = -s + \pi$, where Δr is the real interest rate difference, s is the expected real currency appreciation, and π is the risk premium.

Financial Sector Regulation in CEECs and EU Accession

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Introduction

A decade has lapsed since command economies were abandoned in Central and Eastern European countries (CEECs) and were progressively replaced with market economies.¹ Market-based financial markets did not exist in CEEC planned economies and hence there was very little local knowledge with respect to financial sector regulation and supervision. Very early on in the transition, several CEECs indicated their interest in becoming members of the EU. Accession negotiations are now well advanced with a first group of five CEECs (the Czech Republic, Estonia, Hungary, Poland, and Slovenia). The Helsinki European Council (December 1999) decided to start accession negotiations with the other five candidates as well (Bulgaria, Latvia, Lithuania, the Slovak Republic, and Romania). A date for definitive accession of the first candidates has not been set, but this is expected to occur sometime after 2004.

Accession to the EU will require countries to adapt their legislative framework to the norms and standards of the EU, the *acquis communautaire*. With respect to the financial sector and financial regulation in particular, adaptation of the “*acquis*” raises two problems. First, how quickly can the “*acquis*,” which reflects the norms of a sophisticated financial sector, be transposed onto the relatively underdeveloped financial sectors of the CEECs? Will the EU Commission allow some flexibility by granting, for example, transition periods, or will it require that the “*acquis*” be fully in place before accession can proceed? Second, once these norms are put in place, will they inhibit their further development in some way and encourage the further penetration of these markets by well-established financial players?

The intention of this paper is to evaluate CEEC progress in developing financial sectors and putting in place financial sector regulatory frameworks. The first section reviews progress in the financial sector, while the second focuses on regulatory frameworks. The final section raises the issue of whether the adaptation of the *acquis communautaire* could stifle developments in financial markets and also argues in favor of flexibility in setting the terms for accession.

I. Financial Sector in Transition

Ten years after the start of the transition, the development of financial markets in transition economies is still limited. As compared to developed economies, banking and securities markets are still in early stages of development, and many additional steps will have to be taken before mature market conditions are reached. The diversity among countries is considerable, although a clear distinction can be made between the countries that have applied for EU membership and the European CIS countries. In the former, the transition is well advanced, or even over (Gros 2000). The latter are clearly lagging on the basis of many indicators.

Privatization of Banking Sector Has Proceeded Rapidly in Some Countries

Before analyzing financial sector developments, it is important to compare progress with respect to privatization in the banking sector. A country's approach to privatization has direct implications for the development of its financial sector. Privatization through vouchers and investments funds stimulates securities markets. Privatization by management buy-outs reinforces the role of the banking sector as the main creditor of industry. This also has specific implications for financial regulation.

To date, privatization is most advanced in the two smallest Baltic States (Estonia and Latvia), which have almost completely privatized their banking sector. Of the Visegrad countries, *Hungary* is most advanced, with state-owned banks maintaining an asset share of 12 (by the end of 1998), followed by the *Czech Republic*, with 19 percent. In the other countries, state ownership has remained very important. In *Poland*, for example, it is about 50 percent and declining, while foreign control is limited to 16 percent. The *Slovak* banking market is dominated by three banks, which together hold 47 percent of total banking assets. One is completely state-owned, while the other two are 51 percent and 35 percent state-owned, respectively (OECD 1999: 76). In *Slovenia*, the two largest banks are state-owned and dominate the market. Privatization is least advanced in the two Eastern Balkan states—Bulgaria and Romania (see table 1).

To explain the link with financial regulation, it is revealing to compare the Hungarian and Czech examples. *Hungary* privatized gradually after restructuring and opened its markets to foreign investment and ownership with no restrictions. By the end of 1998, only 12 percent of the banking sector was still in state hands (well below many Western European countries), and 62 percent of bank assets were foreign-owned. The *Czechs* went for rapid privatization through vouchers, which were largely con-

trolled by locally owned investment funds. After initial success, the Czech experience turned sour as a result of insufficient regulation and control, and insufficient foreign competition. There were conflict of interest problems with respect to the management of the investment funds and lack of adequate governance, illustrating a common problem with rapid transitions, namely a mismatch between economic and regulatory development.

Foreign Ownership Remains Low in All But Two Countries

Foreign ownership of the banking sector is most developed in Latvia where more than 70 percent of total bank assets were in the hands of majority foreign-owned banks at the end of 1997, followed by Hungary with 62 percent, or 27 out of 40 banks. These two countries are, however, rather exceptional in that most countries have preferred to keep banks locally owned and foreign ownership has averaged below 20 percent.

Table 1. Privatization in the Banking Sector

1998	<i>Asset share of state-owned banks (%)</i>	<i>Asset share of foreign-owned banks (%)*</i>	<i>Number of banks</i>	<i>Of which majority foreign- owned</i>
Belarus	59.5	2	37	3
Bulgaria*	66	15	28	7
Croatia	37.5	4	60	11
Czech Rep.	18.8	13	45	13
Estonia	7.8	28	6	2
Hungary	11.8	62	40	27
Latvia	8.5	71	27	15
Lithuania	45.3	41	10	5
Moldova	0	14	23	7
Poland	48	16	83	31
Romania	74.6	6	36	16
Russia	42.2	7	1,476	29
Slovak Rep.	50	19	24	8
Slovenia	41.3	6	34	3
Ukraine	—	—	227	12
Germany*	52	2.4	3,392	
France*	31		570	
Italy*	36	5.3	911	

Note: For countries marked with asterisks (*) and for the asset share of foreign-owned banks, data are from 1997.

—. Not available.

Source: EBRD (1999), ECB (1999), Inzerillo, Morelli, and Pittaluga (2000).

Many governments have managed to keep foreign bank entry and ownership low by, for example, remaining a shareholder, a caveat that many foreign investors do not like.

It is worth mentioning that privatization and foreign ownership in the banking sector are not just sensitive issues for European transition countries, but for many in Western Europe as well. In Germany, about half of bank assets are state-owned and further privatization is not currently on the political agenda. In France and Italy the proportion is closer to a third. With respect to foreign penetration, this was not very high at the start of EMU; in the larger EU countries, the asset share of foreign-owned banks stood below 5 percent (ECB 1999). The continuing reluctance to allow foreign ownership was recently exemplified by major takeover battles in France, Italy and Portugal during 1999.

Financial Sector Development Remains in Its Infancy

Under central planning, the financial system did not allocate savings to investment as this was done by a plan, usually without assigning a value to time. Concepts such as return and risk had no meaning in banking parlance and project appraisal and valuation were not developed. In the event a borrower was unable to repay a loan, a bank could not force payment by threatening bankruptcy and liquidation, and Bankruptcy Law did not exist. A huge excess capacity and unproductive economy was thus in place.

Over the past decade much progress has been realized in many transition economies toward building a market economy financial sector. However, compared to developed economies, it is still in its infancy. To measure its progress, this section will focus on one indicator: the ratio of private sector credit to GDP, which measures the financing available for investment in the private sector (see table 2). In developed economies, credit to households and private enterprises stands at about 120 percent of GDP, but the comparable ratio in transition economies is significantly below this. The Czech Republic with 60 percent has the highest ratio by far, followed by Croatia with 40 percent. In a second group of countries (Estonia, Hungary, Poland, the Slovak Republic, and Slovenia) the ratio is approximately 20–30 percent. In other countries, domestic credit to the private sector is barely developed and thus an indicator that there is probably not much banking or financial market activity either. In this respect, the gulf between the first group of Accession candidates and the other countries is wide.

One positive side effect of having underdeveloped financial intermediation is that financial markets are less vulnerable to disruption and turbulence. According to the EBRD (1998), the banking crisis in Russia had

Table 2. Credit to the Private Sector as Percentage of GDP

	1991	1992	1993	1994	1995	1996	1997	1998
Belarus				17.6	6.2	6.7	8.5	17.1
Bulgaria	7.2	5.8	3.7	3.8	21.1	35.6	12.6	14.2
Croatia			47.3	28.6	30.8	28.9	36.4	40.1
Czech Rep.			50.8	59.5	59.4	57.4	66.4	60.1
Estonia	18.0	7.5	10.9	13.8	14.8	18.0	25.5	25.3
Hungary	38.8	33.2	28.2	26.2	22.3	21.7	23.4	22.8
Latvia			17.3	16.4	7.8	7.2	10.7	14.1
Lithuania			13.8	17.6	15.2	10.7	9.6	9.5
Moldova	5.9	5.9	4.1	3.0	5.8	6.8	6.2	13.9
Poland	11.1	11.4	12.2	12.0	12.8	15.9	18.1	20.6
Romania						11.5	8.5	12.8
Russian Fed.			11.8	12.1	8.2	7.0	8.7	12.7
Slovak Rep.				26.9	20.7	24.9	—	—
Slovenia			22.1	23.0	27.4	28.7	28.6	32.5
Ukraine		2.6	1.4	4.6	1.5	1.4	2.4	7.6
Germany	132.7	130.1	134.4	131.8	136.0	141.4	152.9	136.1
France	92.8	93.1	91.3	86.2	85.1	80.8	79.9	84.4
U.K.	105.4	104.2	101.6	99.8	102.8	105.5	106.7	107.1
U.S.A.	127.1	123.6	122.0	121.9	124.9	126.2	127.7	133.1

— . Not available.

Source: EBRD (1999); IMF, International Financial Statistics (1998); central banks.

a less damaging effect on its real economy than the crises in East Asia had on that region. This is the case because in the former, markets were fairly underdeveloped, external finance for firms more limited, and banking markets less integrated in the inter-bank market as compared to developed economies. This implies that an individual banking crisis does spread less systemically through that channel, or that it could be more easily isolated. As markets deepen, the effects of a banking crisis may become more severe, implying that supervision will need to be adapted in line with market development.

Two other indicators corroborate the general underdeveloped status of most transition economies' financial sectors. The first is the ratio of broad money to GDP (M2). The second is the spread between lending and borrowing rates, which varies widely between countries. In the countries of the former Soviet Union the spread is wide, whereas in the Accession countries, it has already come much closer to the spreads of mature markets.

Ten years into transition, there has been significant progress with respect to banking sector privatization and financial sector development

in some countries. Progress varies widely among countries, with most western ones clearly more advanced owing to the local culture and proximity to the EU. On the other hand, Bulgaria, Romania, and the European CIS countries have made less progress and have further to go.

II. Institutional Development

Institutional development is of central importance to the proper functioning of financial markets. The existence of an independent central bank, competent supervisory authorities, a regulatory framework, and market infrastructure are crucial components for the maturation of financial markets. Many of these elements still need to be developed before EU accession can proceed as membership presupposes the capacity to withstand competitive pressures from within the Union. In practice, this means CEECs must approximate the regulatory and institutional framework as established by EU law, or the "*acquis*."

The central lesson from 10 years of transition is that the development of institutions is paramount, according to the 1999 EBRD Transition Report. It found that there was too much emphasis placed on rapid transition to market economies, and too little to the institutional underpinnings that make markets work. Comparison between the Czech and Hungarian transitions has already been made. A more striking example is between Poland and Russia. Poland has continuously insisted on the importance of a gradual and well-managed transition, and consequently reaped the benefits with strong and consistent growth since 1992. Russia, on the other hand, liberalized abruptly and haphazardly, with the well-known consequences.

Implementing the "Acquis"

Detailed criteria for EU membership are set out in the European Commission's 1995 White Book. It distinguishes between measures that need to be implemented as soon as possible (Stage I) and those that must be in place before full accession (Stage II). The White Paper functions as a benchmark to allow the Commission to judge an applicant's readiness for membership. The EU Commission has mobilized significant human and financial resources to help the Accession candidates to implement the "*acquis*." For instance, the "*Phare*" program cofinances institution building and investment, while the "*twinning*" program, provides for the long-term secondment of officials from member Ministries, regional bodies, public agencies, and professional organizations to candidate countries. With respect to banking and capital market the measures that are of most importance are:

- The free movement of capital;
- The free provision of financial services; and
- The creation of institutions capable of ensuring stability of prices and financial markets.

Central Banking and the Institutional Structure of Supervision

Central banks in market economies play a crucial role in steering money markets, supervising payment and settlement systems, and monitoring the stability of financial markets. In several countries, they are also in charge of supervising financial institutions. Although it is unlikely that applicant countries will be able to join EMU immediately upon accession, EU accession implies compliance with the *acquis communautaire* in this domain. Accession countries must comply with independence of the central bank, or progress toward this objective, prohibition of public sector financing deficits by the central bank and interdiction of privileged access by public authorities to financial institutions (Art 101 (ex-Art. 104) and Art. 102 (ex-Art. 104a) of the EU Treaty).

Central Banks Combine Functions in CEECs

Central banks in the CEECs combine the tasks of maintaining price and financial stability with supervision of the banking system. Because of the fragility of the financial system, the central bank, as lender of last resort, is the best institution to be in charge of financial supervision. Arguments against combining these functions lack weight in transition economies. On the contrary, scarcity of resources in transition economies and need for clarity almost makes it imperative. The danger of a conflict of interest in the performance of both functions and risk of excessive power in the central bank are of no immediate concern in transition economies.

Hungary and Poland are exceptions to this rule. In Hungary, prudential supervision of banks is shared between the State Banking Supervisor (SBS) and the National Bank of Hungary. In Poland, the Commission of Banking Supervision has been the supreme authority since January 1998. The Commission is chaired by the President of the National Bank of Poland, and delegates to the General Inspectorate for Banking Supervision, an organizationally autonomous institution from the central bank.

Arguments Against Single Financial Supervision in CEECs

In the EU, the trend toward a single financial supervisor is accelerating owing to the increasing complexity of financial supervision and growing conglomerations in the financial sector. Today, less than half of the central banks in the EU have responsibility over banking sector supervision, and at least four EU member states have single supervisory authorities. CEECs, on the other hand, have not yet felt the need for a single financial supervisor,² preferring a segmentation of financial markets. Indeed, supervisory specialization is the best way to build confidence in transition economies.³ Other important arguments against a single authority in transition economies are the need to reduce moral hazard (as a single authority would give the wrong signals to the market), and the danger of systemic distrust if all supervision is carried out by a single authority.

Different bodies involved in the transition process have addressed the need for the rapid creation of supervisory structures. The 1995 European Commission White Paper requires Accession countries to have appropriate supervisory structures in place as part of the stage I measures (those that need to be implemented as soon as possible). From the international perspective, the Basel Committee, at the invitation of the G-7 and in response to the emerging market crisis, reiterated in its "Core principles of Banking supervision," the need for a supervisory agency possessing operational independence and adequate resources. Supervision of securities markets and the insurance sector is in general performed by separate agencies, accountable to the ministry of finance. Only Hungary (since 1997) has an integrated banking and capital market supervisor made up of formerly separate bodies (see table 3).

Capital Movement Liberalization

The 1995 White Paper provides explicit steps for liberalizing capital markets. Three directives concerning medium- and long-term capital movements should be implemented in Stage 1 and one directive regarding the abolition of all remaining restrictions in Stage 2. In practice, liberalization is proceeding on course in the CEECs, although at very different paces. Overall, medium- and long-term capital movements were liberalized faster than short-term capital movements, and capital inflows have been liberalized faster than capital outflows. The Czech Republic and Estonia have made significantly more progress in liberalizing capital movements than other countries. The acquisition of real estate by foreigners is still restricted in many countries.

Table 3. The Institutional Structure of Financial Market Supervision

	<i>Banking</i>	<i>Securities Markets</i>	<i>Insurance</i>
Bulgaria	Banking Supervision Department of the CB.	Commission on Securities and Stock Exchanges, appointed by government.	National Insurance Council and Insurance Supervision Department in MoF.
Croatia	CB	Croatian Securities and Exchange Commission (independent government agency).	—
Czech Republic	Specialised department within CB.	Securities and Exchange Commission (administrative authority, with no rule-making powers).	MoF in charge of supervision of insurance and investment companies.
Estonia	CB	Securities Inspectorate (under surveillance of MoF).	MoF
Hungary	Banking and Capital Market Supervision Agency (since 1997), made up of formerly separate bodies for each sub-sector.		State Insurance Supervisory Authority, reporting to the MoF.
Latvia	CB	Securities and Exchange Commission, appointed and accountable to parliament, may impose disciplinary sanctions.	Insurance Supervision Inspectorate, reporting to the MoF.
Lithuania	CB	Lithuanian Securities Commission, appointed and accountable to parliament, may impose disciplinary sanctions.	MoF

(Table continues on the following page.)

Table 3 (continued)

	<i>Banking</i>	<i>Securities Markets</i>	<i>Insurance</i>
Poland	Commission of Banking Supervision, as of 1998 (autonomous body within CB).	Securities and Exchange Commission.	State Office for Insurance Supervision and State Office for the Supervision of Pension Funds.
Romania	CB	National Securities Commission, reporting to parliament.	MoF
Russia	CB	Independent Securities Commission since 1993.	Specialist insurance regulator.
Slovak Republic	CB	Control Office within MoF.	-
Slovenia	CB	Securities Market Agency (fully independent).	Insurance Supervisory Authority within MOF.

Note: CB = Central Bank, MoF= Ministry of Finance.

—, Not available.

Regulatory Approximation

The CEECs are further along in adopting EU regulatory standards than the European CIS countries. Most are advanced in establishing the necessary framework, and some are nearly ready for accession, at least as far as financial markets are concerned. In this sense, it could be argued that the transition is over. Clearly, the prospect of near-term membership provided a strong incentive to Accession candidates to move forward with implementing the “*acquis*.” The annual EBRD progress report of former planned economy countries has grouped them according to progress. Geographically speaking, the most eastern countries have the lowest transition indicators. The five Central European countries, together with Croatia and the Baltic States, are clearly the most advanced, followed by the European CIS countries and Romania and Bulgaria (EBRD 1999, p. 27). The EU Commission has its own methods (an analytical evaluation, or “screening”) of evaluating progress in adopting regulatory norms.

EU “*Acquis*” in Financial Services

- Banking: 26 directives
- Securities firms and markets: 16 directives, 2 recommendations
- Insurance companies: 1 regulation, 33 directives, 4 recommendations
- Payment systems: 4 directives, 2 recommendations

Table 4 gives a general overview of the state of implementation of the White Paper in the 10 candidate countries by mid-1999. The overall view that emerges from this table is that Hungary is most advanced, followed by Estonia, Poland, and Slovenia. The Czech Republic remains somewhat behind in the first wave countries. Of the second wave countries, the two other Baltic countries and Bulgaria have recently progressed significantly, while Romania and the Slovak Republic lag behind.

Progress with implementation does not however mean that the regulatory framework is functioning. Table 4 has therefore been completed using EBRD’s ratings on the extensiveness and effectiveness of rules governing banking and financial markets. The ratings are based on surveys with academics and experts. The benchmark is thus not only the “*acquis*,” but also the efficiency of the regulatory framework. The EBRD notes for all countries a persistent gap between extensiveness and effectiveness, a gap that is bigger for securities law than for banking law, because of the more recent creation of securities commissions. Hungary and Poland receive the highest effectiveness scores, followed by Estonia, Slovenia, and the Slovak Republic. Interesting to note is the

Table 4. Progress in Adopting the White Paper and EBRD Rating

<i>Mid-1999</i>	<i>Capital Movements</i>	<i>Banking</i>	<i>Securities Markets</i>	<i>Insurance</i>	<i>EBRD rating on financial regulations</i>	
					<i>Extensive-ness</i>	<i>Effective-ness</i>
Bulgaria	Stage I largely implemented, national treatment	Stage I done, close to completing stage II	Market access for firms and listings not yet regulated	Progress was achieved but licensing criteria are high	3	2+
Czech Republic	High degree of capital market liberalization	Some gaps remain in Stage I, Stage II partially	Stage I partially, stage II: close, but not complete	Close to stage I compatibility	3+	2+
Estonia	Restrictions on real estate investment remain for non-residents	Stage I and II implemented	Stage I and II largely implemented, no remote access yet	Stage I fully, elements of Stage II	4	3+
Hungary	Stage I fully done, progress on short term capital movements, restrictions on real estate acquisition	Stage I: yes; stage II almost completed, with the exception for FPS	Stage I: yes; stage II almost completed, with the exception of FPS	Stage I: yes; stage II almost completed, with the exception of FPS	4	4
Latvia	Stage I largely implemented, national treatment	Stage I fully, close to completing stage II	Stage I fully, progress on stage II measures	Stage I fully, elements of Stage II	3	2
Lithuania	High degree of capital market liberalization	Stage I fully, close to completing stage II	Stage I and II largely implemented, no remote access yet	—	3-	2

Poland	Stage I fully done, progress on short-term capital movements, restrictions on real estate investments	Stage I fully, progress with stage II measures	Stage I done, elements of stage II missing	Stage I and II not yet fully implemented	4	4
Romania	Stage I largely implemented, national treatment	Stage I almost done, stage II only partially	Serious gaps remain in stage I measures.	—	3	3-
Slovak Republic	Stage I done, progress on short-term capital movements, restrictions on real estate investments	Stage I and II partially done	Stage I done	Serious gaps remain in stage I measures	4	3+
Slovenia	Most restrictions have been removed	Stage I is done, some elements of Stage II remain to be enacted	Stage I to be fully implemented by end-1999	Stage I to be implemented in 2000	3+	3+

— . Not available.

Source: European Commission (1999), EBRD (1999). The EBRD ratings refer to the appreciations of experts of the extensiveness and effectiveness of legal rules governing banking and financial markets, with 4+ as the highest mark.

much lower ranking of the latter country by the European Commission. Overall, the Commission's evaluation and the EBRD's ratings seem to be converging compared with earlier versions of the Transition Report. The 1998 EBRD report gave a much higher rank to Bulgaria than the European Commission, which indicates that politics play some role as well.

Progress with Implementation of the Banking Directives

In the banking sector, the main White Paper measures are:

Stage I measures:

- First banking directive (77/780/EEC): basic principles for the freedom of establishment.
- Own funds directive (89/299/EEC): definition of elements of own funds.
- Solvency ratio directive (89/647/EEC): definition of the 8% capital ratio for banks.
- Deposit guarantee directive (94/19/EC): makes deposit protection obligatory.

Stage II measures:

- Second banking directive (89/646/EEC): single license and free provision of services.
- Annual and consolidated accounts directive (86/635/EEC).
- Capital adequacy directive (CAD I) (93/6/EEC) and amendment (CAD II) (98/31/EC): minimum capital ratios for investment firms and trading departments of banks.
- Large exposures directive (92/121/EEC): limiting exposures to single client.
- Consolidated supervision directive (92/30/EEC).
- Money laundering directive (91/308/EEC).

Further directives adopted after the White Paper:

- “BCCI follow-up” directive (95/26/EC): reinforcement of supervision.

An overview of the status of implementation of these directives in the CEECs-10 is given in table 5. It shows that stage I of banking law is largely fulfilled in the candidate members. The biggest difficulty is the deposit guarantee directive and the amount up to which a deposit needs to be protected. Current levels fall well below the threshold set in EU law, which is 20,000 euro. Only Slovenia has ensured that the directive will be fully implemented by 2001. The authorities argue that lower average incomes justify lower ceilings, but in most cases they have already phased in a transitional period to bring it to the EU level. The concern is that moving to the EU level will stimulate higher risk taking and moral hazard in the CEECs. At the end of 1998, the GDP per capita in the CEECs varied between one-quarter and three-fifths of the average level in the EU. Since banks know that deposits are insured to a high degree, they will take more risk than they would do if no system were in place, or if levels of protection were much lower. In an environment where risk awareness needs to be stimulated, the EU style deposit protection is not appropriate. It may in this sense even be better to have no deposit protection at all.

As far as Stage II measures are concerned, the main stumbling block is the capital adequacy directive. This complex directive sets minimum capital requirements to cover market risk in securities firms and in trading departments of banks, and was amended in 1997 to allow banks to define their own capital requirement through value-at-risk models. The directive has essentially been made applicable to banks to overcome a problem of distortion of competition in the EU, since U.K.-based securities houses, which are licensed as investment banks, would have got lower capital ratios than the trading departments of German-style universal banks. Given the low degree of trading book transactions in CEEC banks, and the limited experience of banking regulators, there has been limited need to implement the directive. In Hungary, the directive has not been implemented, but several rules on credit risk and off-balance sheet business bridge this gap somehow. Also, regulations on securities trading, as amended in 1999, contain some elements of CAD. In the Czech Republic the government has announced plans for implementation in 2000; in Slovenia, the CAD has only been partially implemented so far, and the same holds for Poland. The only country where the CAD has been implemented is Estonia.

The biggest change for markets is the full application of the *acquis communautaire*, or the move in the financial services sector from a situation of freedom of establishment to free provision of services and free branching. Today, with the first stage of directives implemented, CEECs can in prin-

Table 5. Implementation of Banking Directives in CEEC (at mid-2000)

	<i>Czech Republic</i>	<i>Estonia</i>	<i>Hungary</i>	<i>Poland</i>	<i>Slovenia</i>	<i>Lithuania</i>	<i>Latvia</i>	<i>Bulgaria</i>	<i>Romania</i>	<i>Slovak Republic</i>
First Banking Directive	Partially	Fully	Fully	Fully	Fully	Fully	Fully	Fully	Almost fully	Partially
Own Funds Directive	Largely	Fully	Fully (except on 1 item)	Fully	Fully	Fully	Fully	Fully fully	Almost fully	Fully
Solvency Ratio Directive	Largely	Fully, SR is 10%	Fully	Fully	Fully	Fully	Fully	Fully	Almost fully	Almost fully
Deposit Guarantee Directive	Partially, min. 11,000 euro, only local currency	Transitional period to reach EU level	Min. 4,000 euro, transition be will needed	Almost fully	Fully by 2001	Fully Min. 15,000 euro by 2001, 20,000 by 2005	Present level is 1,820 euro. Transitional period to reach EU level	Present level is 3,500 euro. Transition will be required	Present level is 2,940 euro. Fully by 2005	Partially
Second Banking Directive	Partially Lower initial capital for credit cooperatives	Fully	Lower initial capital for credit cooperatives	Fully Transition period for cooperative banks	Fully Transition period for cooperative banks	Fully	Fully	Fully	Partially	Partially
Ann. and Cons. Accounts Directive	Partially	Fully	Almost fully	Fully	Almost fully	Fully	Fully	Fully	Partially	Partially

Consolidated Supervision Directive	Partially, exp. 2002	Fully	Partially	Very partially	Fully	Fully	Fully	Fully	Partially, by 2000	No
Large Exposures Directive	Fully	Fully	Almost fully	Fully	Fully	Almost fully	Fully	Fully	Fully	Partially
Capital Adequacy Directive (CAD I and CAD II)	Fully (by 2000)	Almost fully	Not yet, in line upon accession	Partially, by 2002	Partially. From mid-2000	Partially	Partially	Partially	Not by 2000	Not by 2005
Money Laundering Directive	Partially (anonymous accounts)	Fully	Partially (anonymous accounts)	Partially (anonymous accounts)	Fully	Fully	Fully	Fully	Fully	Partially (anonymous accounts)
BCCI Directive	Partially	Fully	Partially	Partially	Fully	Partially	Partially	Fully	No	Partially by 2003
Netting Directive	No	By end-1999	No	No, by accession	Possibly	No	No	No	No	Partially by 2005

Source: European Commission.

ciple not discriminate against foreign financial institutions when looking to set up a business (a subsidiary). Foreign firms need to be given national treatment—that is, the same treatment applied to local firms. Upon EU membership, this will change fundamentally. Firms incorporated in one Member State need to be allowed to provide services and to open branches in the country of another Member State, as long as they are properly authorized in their home country, but without an additional authorization (the single license). This implies that a host country provider may be working under a more favorable regulatory regime than the local competitors. Regulatory regimes are in open competition in the EU's single market.

Full Accession and Transitional Periods

The most important question is to what extent the “*acquis*” will need to be fully applied, and how lenient the Commission will be in compromising with transitory periods? The deposit insurance and the capital adequacy directive examples illustrated the issue above. The view of the European Commission is that the accession countries must be in a position to apply the “*acquis*” and the scope for exceptions is limited. The EU wants new members to exercise full rights and responsibilities. This does not mean that the “*acquis*” will apply everywhere immediately. Transitional periods will, if appropriate, be used. This happened in previous accession negotiations, and it is also often used in directives for existing members to take the development of a certain market into account. In the investment services directive (ISD), for example, which liberalized access to stock exchanges in the EU, the southern European countries were permitted to delay the official implementation deadline for certain elements. And, in the last accession negotiations with Finland, for example, some specific exceptions were made to accommodate the competitive position of the Finnish insurance sector.

An additional problem is that the “*acquis*” is a moving target. New EU legislation or amendments to existing legislation are being negotiated, and will become “*acquis*” upon adoption. In the domain of financial services, much is still in the pipeline. The Financial Services Action Plan (May 1999) lists many areas in financial services regulation where action needs to be undertaken. It concerns primarily wholesale markets (amending the ISD, easing pan-European securities issues, market manipulation), but also retail markets and adapting the supervisory structure to market integration.

Areas in financial services regulation where transitional periods will apply concern references to nominal values in directives, in view of the large differences in economic development, and specific segments of the

financial services industry that are in need of more protection. In this respect, it is possible that the minimum capital requirement for banks, which is 5 million euro in the own funds directive, will be debated. A transitional period to arrive at the minimum level of EU's deposit guarantee and investor protection directive (20,000 euro) will certainly be applied. Also for smaller banking groups, transitional periods will apply, installing additional delays to accommodate to full competition. As far as stock markets are concerned, it is likely that transitions will apply to the direct access to local Eastern European markets.

Conclusions

Within the EU commission there is currently a debate about the degree to which the EU can exercise leniency in judging a country's progress in implementing the "acquis." The Commission, mindful of setting new precedents and fearful of loosening the cohesiveness of the Community and undermining its own powers, has been a proponent of strict adherence to full "acquis" implementation. However, proponents of leniency argue that maintaining momentum toward accession is of paramount importance. Without leniency there is a risk countries will "run out of steam" and a risk of aggravated political instability. To bolster their case leniency advocates point out that the Commission exercised flexibility in the case of Greek accession with a positive outcome.

Moreover, financial markets are in very early phases of development and will need considerably more time to attain Western European standards. Why impose full EU standards of financial regulation on the Accession countries? Would not a tailor-made regulatory package have suited these countries better? If all requirements are met, it is possible that their markets may end up over-regulated, with respect to their level of development. This is evident from discussion around the minimum level of deposit protection, which is very high for countries where the average income is far below the EU's. But it also applies to several other pices of legislation. The EU will of course argue that far-reaching exceptions to the "acquis" create dangerous precedents in the accession negotiations, and cannot be accepted. The only way out is to demand long transition periods.

The problem thus emerges whether the *acquis communautaire* will not stifle development of financial markets, and be too much for the local administrations to absorb. Moreover, one could also question whether accession would serve the interests of the EU financial sector more than that of the CEECs. One criteria of accession is the capacity to withstand competitive pressures from within the Union. The first 10 years of transition have shown an important trade deficit overall for the CEECs, con-

trary to what was initially expected. As far as the financial sector is concerned, some countries have been reluctant to open up their markets for foreign institutions. But this is difficult to hold: there are few areas where CEEC financial institutions can be competitive with their Western European counterparts. Apart from the competitive dimension, the regulatory framework also may advantage financial institutions from Western Europe—another reason for the EU to be flexible and pragmatic in discussing the terms of accession.

Endnotes

* CEPS is an independent policy research institute based in Brussels. For more information, see www.ceps.be. This paper was prepared for the World Bank and draws upon work carried out in the context of a larger research project directed by the Zentrum für Europäische Wirtschaft (ZEW) on capital markets in the CEEC, and funded by the European Capital Markets Institute (ECMI, www.ecmi.es).

¹ Central and Eastern Europe in this paper are composed of the 10 CEECs that have applied for EU membership (the Visegrad countries, the Balkan and Baltic states, and Slovenia), the four countries of the European part of the CIS (Belarus, Moldova, Russia, and Ukraine), Albania and the countries of the former Yugoslavia. The latter two will, with the exception of Slovenia, in general not be included in the comparisons, since very little data are available, and their economic significance is very limited.

² Estonia is considering creating a single supervisory authority.

³ According to Jaroslaw Kozlowski, Deputy Chairman of the Polish Securities and Exchange Commission, at the European Borrowers Network seminar in Prague, 24–25 June 1999.

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Harmonizing the Capital Movements Regimes of the Accession Countries with the Community “*Acquis*”

Sotirios Kollias

Freedom of capital movements is a basic principle of the Treaty of Rome, a cornerstone of the Single Market, and an essential precondition for the Economic and Monetary Union (EMU). Each stage of EMU is characterized by a more liberal regime of capital movements.

The rationale behind such a liberal regime is that free movement of capital allows for the optimal allocation of financial resources. It enables markets to choose the appropriate allocation of capital among companies, sectors and countries, following pure economic considerations. The freedom of capital movements is also related to the freedom of trade and services, i.e., the basic principles of the Single Market. Full freedom of the latter is not possible without freedom of the former.

The financial crises in Southeast Asia and Russia may have challenged the merits of full freedom of capital, but the experience of the European Union confirms the validity of this general approach. Previously segmented national financial markets have been effectively integrated. We see increasingly an integrated European capital market—bigger and more competitive. The efficiency gains are reflected in the gradual reduction in interest rate margins by banks, commission fees for financial institutions, and a broader scope of available financial instruments. This allows a much more efficient financing of EU enterprises. The freedom of capital movements has also helped to channel capital into EU regions with high development potential and accordingly high financial needs with benefits for these regions and for the whole Union.

Restrictions on capital movements between the Member States have gradually been removed and effectively lifted since the early 1990s. On 1 January 1994, the regime was strengthened: it became primary law, i.e., of direct application, and the obligation of Member States to liberalize was extended (with some minor exceptions) to third-party countries. The regime was further strengthened at the beginning of 1999, as the emergency provisions of the Treaty to apply restrictions in case of severe bal-

ance of payments problems were abolished for the 11 Member States participating in the euro.

I must point out that freedom of capital movements in the European Union is part of a more general conceptual framework for financial integration. This includes the freedom of establishment and the free cross-border supply of financial services as well as a comprehensive system of regulatory and supervisory rules. The latter have been designed in such a way as to protect the consumers and investors, to ensure equal conditions of competition between firms, sectors and countries and to safeguard financial stability, both systemic and of institutions. It is this model of financial integration, which has generally protected the European Union of major crises that we have seen in other parts of the developed and developing world.

These are the characteristics of the regime that the Accession countries must adopt in order to become members of the European Union. They have made significant progress in the process of liberalization and have now reached a crucial stage. Further progress cannot be made without promoting macroeconomic stability, more structural adjustments, and further development of the financial system.

Their effort is reminiscent of that of the Member States of the European Union in the 1980s. Having opted for priority in exchange rate stability, the majority of the Member States followed, in contrast to the United Kingdom, the gradual approach. Economic analysis and the experience in these Member States suggest that we can group the spectrum of capital transactions into three broad categories. The first comprises direct investment and credits related to trade. The second, portfolio transactions and long-term financial credits. The third, short-term capital movements, such as operations in short-term securities, short-term financial credits, and the opening of deposits abroad. As we move from one class to another the liberalization implies more benefits but also an increasing burden on the economy, increased competition, and increased constraints in the conduct of monetary policy.

The Accession countries, in the context of their overall transformation, could not but follow this gradual approach. The process has virtually been completed in the Baltic countries. In Central European countries (Poland, Hungary, the Czech Republic, and the Slovak Republic) the process has reached a crucial stage, as portfolio operations and long-term financial credits have been liberalized to a large degree, but short-term capital movements remain restricted. In the remaining countries, the process is well under way, and portfolio operations are the next area to be liberalized.

In all accession countries, second-generation laws are in the process of being adopted to take into consideration the experience and the new

needs as economic and financial sector development advances. But the alignment with the EU regime is not simply a technical but an economic issue.

The recent financial turmoil has shown that free capital mobility is different than free trade in goods and services. Trade is not subject to herd behavior, panics, and destabilizing speculation. Capital mobility can be very beneficial but it can also cause enormous costs, and prudential rules have been often downplayed. There is a broad consensus that there should be full capital mobility for all countries. The crucial question is how that process should proceed: what should be the optimal speed and sequence of liberalization; what are the conditions for attaining the ultimate goal?

We distinguish two types of external openness:

- Openness to competition via trade, foreign direct investment, in all sectors including the financial sector, and long-term financial credits; and
- Openness to other capital flows.

The financial crisis in Southeast Asia has revealed that in the “tiger” or “ex-tiger” countries, the first type of openness is very limited : bank lending by foreign-owned banks is only 5%. In Chile, which maintains exchange controls, the corresponding figure is more than 20% (as it is in the United States).

Countries that have already fully liberalized are going to run into troubles if they backdrop. The reintroduction of controls is difficult and entails a collapse of trust. Moreover, the controls can be circumvented. Such countries should consolidate further macroeconomic stability and strengthen the structure and prudential rules of the financial sector.

On the other hand, countries that are not yet fully open should proceed carefully. They should first open their economies to trade and investment, and build up a sound regulatory and supervisory framework of their financial system.

The accession countries are in general following this approach. We notice, however, that flows of foreign direct investment per capital differ widely among them, with the largest flows going to Hungary, Estonia, and the Czech Republic. The proportion of bank assets owned by foreign banks as share of the total is much higher in Hungary than in the rest of the accession countries. These differences show that the underlying conditions, credibility of economic policies, and openness to competition, are different and must be improved substantially in most accession countries.

With regard to economic policies, apart from keeping macroeconomic disequilibria under control, countries should, first, have instruments to

sterilize inflows—which can be huge nowadays—if they want to liberalize inward short-term flows and, second, accumulate experience in monetary management. This cannot be done overnight. You need people and proper statistical information. What is prudent macro-policy cannot be described in a simple criterion. What is accepted by markets is changing, for example the accepted size of current account deficit. In general, with inflation above 10 percent, full liberalization is risky.

As to the exchange rate, the conflict between exchange rate stability and capital movements liberalization has been the central theme of the history of economic integration in the European Union. It has been solved with the introduction of the euro. Some accession countries have switched to a floating exchange rate regime. This facilitates, *ceteris paribus*, the liberalization process and allows for some macroeconomic disequilibria while the pace of liberalization is more dictated by developments in the financial sector. However, as external openness increases and the accession countries gear to the EMU *acquis*, a switch to fixed exchange rate targeting will have to be made. This implies strict macroeconomic stability and convergence, as well as a well-developed and well-regulated financial system.

With respect to the financial system, solvency ratios should be above the Basel recommendations while banks should have proper management, with good risk assessment and risk control. Supervision turns more and more toward this direction. Moreover, the financial structure should be appropriate, with attention paid to the robustness and proper workings of the banking system.

Private Capital Flows, the Launch of the Euro, and the EU Accession

Daniel Gros

Capital mobility has been a key factor behind the recent crises in Asia and emerging markets in general. This paper will review the lessons from these crises for the countries in Central and Eastern Europe, and consider how capital mobility relates to EU accession: is it a precondition or a potential stumbling block?

The Evolution of Exchange Rate Crises

It is instructive to compare the 1995 crisis in Europe with the Asian crisis of 1997–98. In 1995, the currencies of Italy, Spain, and Sweden depreciated by about 25% against the D-mark, while long-term interest rate differentials increased to about 5 percentage points relative to their German equivalents (which implies that markets were expecting further devaluations at a rate of about 5% per year for an indefinite length of time). The depreciation in 1995 came on top of the currency turmoil of 1992–93, so that at the peak, the price of the D-mark in terms of Italian lire had increased by almost 60% (from 750 in 1992 to 1,250 in early 1995).

Three years later, the sentiment of the international financial markets changed completely. Italy is part of the euro area, its stock market is booming, and the yield differential with respect to Germany has completely disappeared. The crisis lasted more than a few months, but the exchange rate of lira recovered rather quickly to about 30% below the pre-crisis level (the interest rate differential persisted much longer).

If one takes the lira in 1995 as the term of reference, the current crisis in Asia is about twice as severe in terms of exchange rate and interest movements against the U.S. dollar, which is the reference currency of Asia. However, in terms of current account adjustment (and the domestic recession), the crisis emerging in Asia is more severe. The change in the current account between 1996 and 1998 amounts to about 14% of GDP for Thailand and almost 11% of GDP for Korea. This is somewhat more than twice the 5.8% swing Italy experienced.

What can be inferred from this? The key difference between Asia and Europe seems to be that in Europe, most countries had “only” a currency

crisis: The impact on the real economy was limited. In Italy and Spain, total domestic demand fell by about 3–4% of GDP in the wake of the crisis. However, in Asia the cumulative fall has been, in some cases, over 10% of GDP. This confirms that a banking crisis, or, more generally, a crisis in the domestic financial system, can be even more costly than a currency crisis.

The Next Crisis: The CECs?

While Russia and Ukraine were victims of the emerging markets crisis that started in Asia, the countries of central Europe (CECs) have not suffered direct contagion of their financial markets—although some impact has been felt in the reduced trade prospects with Russia. The question is whether central Europe is immune to the Asian flu. The official position so far is that the crisis in Russia will not affect the candidate countries for EU membership, because they no longer trade intensively with Russia. However, this complacency might not be appropriate. The contagion that has affected Asia, Russia, and Latin America is not based on trade links, but on the fact that many of these countries face very similar economic problems. The fundamental problems that caused the crisis in Asia and Russia do exist also in central Europe, and hence there is some danger that the CECs will also be affected.

A key problem in Russia and Latin America is the inability of the public sector to finance itself on a sustainable basis through tax revenues. This is not the case for the more advanced candidates for accession. However, the experience in Asia has shown that even countries with fiscally conservative governments can run into big problems if the financial sector is not tightly controlled. The mechanism that caused the crisis in Asia (and, to some extent, also in Russia) is quite simple: domestic banks and/or enterprises incur large foreign liabilities that are denominated in foreign currency, and use the proceeds to invest in domestic assets denominated in local currency. As long as the exchange rate stays fixed, this is very profitable, as domestic interest rates are usually much higher than those of the foreign currency. However, when the exchange rate has to be devalued, the entire banking system and/or a large part of industry face huge financial problems, to the point of facing bankruptcy. Financial markets anticipate that the government cannot let the entire banking system fail, and is thus likely to bail out large enterprises. The markets also realize that a devaluation would therefore generate large deficits—and higher rates of inflation. This is why the situation usually spins out of control once the exchange rate can no longer be defended.

Whether or not central Europe will also be affected by the crisis, therefore, depends on whether the mechanism just depicted is active also in

the candidate countries. Thus it is a priority to find out whether banks and enterprises in these countries have built up a dangerous mismatch between foreign currency liabilities and domestic assets.

If one finds out that some of the candidate countries are setting themselves up for an Asian/Russian-type combined currency and banking crisis, there might still be time for preventive action. If one finds that they are immune because their financial systems have not engaged in risky lending and borrowing the results should be widely communicated to keep markets calm.

This general problem, then, has three aspects that have to be jointly considered:

- *Financing structure of firms in industry.* At the conceptual level, we have to determine to what extent one can consider the financing structure of firms in isolation from the rest of the economy. We also need to determine to what extent the broad formal and informal links between banks and industrial enterprises add to the problem. At the empirical level, the difficult task will be to find out the amount of foreign liabilities already accumulated by firms. Firms are usually reluctant to give this information, so that it will probably be necessary to rely on pressure from governments. Governments in these countries, on the other hand, should realize easily the importance of providing this information to financial markets, and they still have a strong influence in many companies.
- *Vulnerability of balance sheets in the banking system.* The key question here is straightforward: what is the asset-liability structure of banks? How much foreign debt have they accumulated? Regulators should have this information, but, as the case of Korea showed, sometimes huge flows of capital can move unobserved by them. A lot of investigative work on the balance sheets of banks might therefore be necessary to find out whether the banking systems in the candidate countries are vulnerable. A correlated problem is that of verifying whether banks that are wholly or partially owned by foreign institutions are effectively protected against solvency (or only liquidity) problems by the capital base of their owners.
- *Macroeconomic issues.* The key issues here are capital flight and capital controls. Capital flight takes place when liquid assets are held by residents abroad. In fact, the counterpart to the build-up of foreign debt is different from country to country. In Korea and Thailand, it was mostly massive capital investment in industrial enterprises or real estate. In Russia, the counterpart to the foreign debt was mostly capital flight.

The type of counterpart to foreign debt that exists in the CECs can have important repercussions on their financial stability. Has there already been significant capital flight from the candidate countries? On the basis of the available macro data (balance of payments, debt, and bank lending) it should be possible to ascertain whether this is the case.

Policy Implications

What consequences follow from this view of the crisis in Asia and emerging markets in general? The first is that (whatever the benefits) the costs of capital mobility can be extremely high. Countries in Central and Eastern Europe that are in an inherently vulnerable position should keep restrictions on capital account convertibility, especially on short-term capital inflows—which should be heavily taxed.

A second conclusion is that one of the central pillars of the IMF advice—namely to liberalize capital accounts even faster—is wrong. While it is not useful to impose capital controls after the crisis has erupted, it does not make sense to insist that further liberalization of the capital account is essential to get to a resolution of the crisis. This does not imply that the entire IMF advice is wrong. That stronger supervision of financial institutions was needed is not in dispute, but the policy prescription to “liquidate quickly and open further” has surely increased the cost of the crisis.

The same comment also applies to the emphasis put by the Commission on the fact that the full *acquis*, including capital mobility, has to be taken on board before accession. This position cannot be justified on economic grounds. There is certainly no reason why candidate countries should shield their banks from EU competition: on the contrary, a larger presence of EU (and other Western) institutions can only stabilize their still nascent and immature financial systems. However, there is a strong case for retaining capital controls until the very last minute to protect against macroeconomic uncertainties that can be transmitted via the exchange rate. This advice applies obviously only to countries where the exchange rate regime is still not settled, as discussed above.

Implications for Accession Strategy and Exchange Rate Policy

For all candidate countries the end-point is clear: full participation in the EU and EMU. But this leaves a question open: what to do in the period from now until then? Two extreme solutions to the exchange rate/capital mobility conundrum are relatively safe. First, implicit EMU participation in the euro-area via a currency board (Estonia). Full capital mobility does

not pose any problem as long as fiscal policy (present and expected) is strong enough. Second, floating exchange rates with limited capital mobility. Although the controls will not be sufficient to maintain large interest rate differentials in the long run, the incentives for evading capital controls can be limited if the government does not try to repress inflation, since the swings in the exchange rate are not driven solely by short-term capital flows.

	<i>Fixed rate</i>	<i>Flexible rate</i>
Full capital mobility	Currency Board (e.g., Estonia)	
Capital controls		With high inflation: Romania

On the contrary, the two mixed systems present problems: Under full capital mobility and flexible exchange rates, the exchange rate can be subject to unpredictable swings due to swings in short-term capital flows. On the other hand, under a fixed rate with capital controls firms and banks have a strong incentive to engage in trade. This incentive is usually strong enough to render the controls ineffective in the sense that they cannot prevent a build-up of foreign debt by the private sector. This should be the key issue for policymakers in Europe.

All this suggests that the period just before full EMU membership might be the most dangerous one. The experience in the EU has shown that the overall economic environment is crucial in determining whether the potential vulnerability of the combination "full capital mobility" plus "fixed exchange rates" results actually in crises. The current environment is rather benign, but the past has shown that this can change rather quickly. As the candidate countries approach EU accession and EMU membership, they should consider whether it is not advisable to keep some elements of capital control (and/or exchange rate flexibility) during this last phase, to be able later to jump directly to the euro with less difficulty.

Annexes

Annex 1

EU Legislation on Financial Services

1. EU LEGISLATION ON BANKING

398L0033

Directive 98/33/EC of the European Parliament and of the Council of 22 June 1998 amending Article 12 of Council Directive 77/780/EEC on the taking up and pursuit of the business of credit institutions, Articles 2, 5, 6, 7, 8 of and Annexes II and III to Council Directive 89/647/EEC on a solvency ratio for credit institutions and Article 2 of and Annex II to Council Directive 93/6/EEC on the capital adequacy of investment firms and credit institutions

Official Journal L 204, 21/07/1998, pp. 0029–0036

398L0032

Directive 98/32/EC of the European Parliament and of the Council of 22 June 1998 amending, as regards in particular mortgages, Council Directive 89/647/EEC on a solvency ratio for credit institutions

Official Journal L 204, 21/07/1998, pp. 0026–0028

398L0031

Directive 98/31/EC of the European Parliament and of the Council of 22 June 1998 amending Council Directive 93/6/EEC on the capital adequacy of investment firms and credit institutions

Official Journal L 204, 21/07/1998, pp. 0013–0025

397L0005

Directive 97/5/EC of the European Parliament and of the Council of 27 January 1997 on cross-border credit transfers

Official journal NO. L 043, 14/02/1997, pp. 0025–0031

396L0013

Council Directive 96/13/EC of 11 March 1996 amending Article 2 (2) of Directive 77/780/EEC in respect of the list of permanent exclusions of certain credit institutions

Official journal NO. L 066, 16/03/1996, pp. 0015–0016

396L0010

Directive 96/10/EC of the European Parliament and of the Council of 21 March 1996 amending Directive 89/647/EEC as regards recognition of contractual netting by the competent authorities

Official journal NO. L 085, 03/04/1996, pp. 0017–0021

395L0067

Commission Directive 95/67/EC of 15 December 1995 making a technical amendment to Council Directive 89/647/EEC on a solvency ratio for credit institutions as regards the definition of “multilateral development banks” (Text with EEA relevance)

Official journal NO. L 314, 28/12/1995, p. 0072–0072

395L0026

European Parliament and Council Directive 95/26/EC of 29 June 1995 amending Directives 77/780/EEC and 89/646/EEC in the field of credit institutions, Directives 73/239/EEC and 92/49/EEC in the field of non-life insurance, Directives 79/267/EEC and 92/96/EEC in the field of life assurance, Directive 93/22/EEC in the field of investment firms and Directive 85/611/EEC in the field of undertakings for collective investment in transferable securities (UCITS), with a view to reinforcing prudential supervision

Official Journal L 168, 18/07/1995, pp. 0007–0013

395L0015

Commission Directive 95/15/EC of 31 May 1995 adapting Council Directive 89/647/EEC on a solvency ratio for credit institutions, as regards the technical definition of “Zone A” and in respect of the weighting of asset items constituting claims carrying the explicit guarantee of the European Communities

Official journal NO. L 125, 08/06/1995, pp. 0023–0024

394L0019

Directive 94/19/EC of the European Parliament and of the Council of 30 May 1994 on deposit-guarantee schemes

Official Journal L 135, 31/05/1994, pp. 0005–0014

Finnish special edition....: Chapter 6, Volume 4, p. 227

Swedish special edition....: Chapter 6, Volume 4, p. 227

394L0007

Commission Directive 94/7/EC of 15 March 1994 adapting Council Directive 89/647/EEC on a solvency ratio for credit institutions as

regards the technical definition of “multilateral development banks”
(Text with EEA relevance)

Official journal NO. L 089, 06/04/1994, p. 0017–0017

Finnish special edition....: Chapter 6, Volume 4, p. 223

Swedish special edition....: Chapter 6, Volume 4, p. 223

393L0006

Council Directive 93/6/EEC of 15 March 1993 on the capital adequacy
of investments firms and credit institutions

Official Journal L 141, 11/06/1993, pp. 0001–0026

Finnish special edition....: Chapter 6, Volume 4, p. 58

Swedish special edition....: Chapter 6, Volume 4, p. 58

392L0121

Council Directive 92/121/EEC of 21 December 1992 on the monitoring
and control of large exposures of credit institutions

Official journal NO. L 029, 05/02/1993, pp. 0001–0008

Finnish special edition....: Chapter 6, Volume 3, p. 208

Swedish special edition....: Chapter 6, Volume 3, p. 208

392L0030

Council Directive 92/30/EEC of 6 April 1992 on the supervision of cred-
it institutions on a consolidated basis

Official Journal L 110, 28/04/1992, pp. 0052–0058

Finnish special edition....: Chapter 6, Volume 3, p. 133

Swedish special edition....: Chapter 6, Volume 3, p. 133

CONSLEG–89L0299–28/04/1992–16 p.

CONSLEG–89L0646–28/04/1992–30 p.

CONSLEG–89L0647–28/04/1992–17 p.

392L0016

Council Directive 92/16/EEC of 16 March 1992 amending Directive
89/299/EEC on the credit institution’s own funds

Official journal NO. L 075, 21/03/1992, pp. 0048–0050

Finnish special edition....: Chapter 6, Volume 3, p. 125

Swedish special edition....: Chapter 6, Volume 3, p. 125

CONSLEG–89L0299–28/04/1992–16 p.

391L0633

Council Directive 91/633/EEC of 3 December 1991 implementing
Directive 89/299/EEC on the own funds of credit institutions

Official journal NO. L 339, 11/12/1991, pp. 0033–0034

Finnish special edition....: Chapter 6, Volume 3, p. 87

Swedish special edition...: Chapter 6, Volume 3, p. 87
CONSLEG–89L0299–28/04/1992–16 p.

391L0031

Commission Directive 91/31/EEC of 19 December 1990 adapting the technical definition of “multilateral development banks” in Council Directive 89/647/EEC of 18 December 1989 on a solvency ratio for credit institutions

Official Journal L 017, 23/01/1991, p. 0020–0020

Finnish special edition...: Chapter 6, Volume 3, p. 83

Swedish special edition...: Chapter 6, Volume 3, p. 83

390X0109

90/109/EEC: Commission Recommendation of 14 February 1990 on the transparency of banking conditions relating to cross-border financial transactions

Official journal NO. L 067, 15/03/1990, pp. 0039–0043

389L0647

Council Directive 89/647/EEC of 18 December 1989 on a solvency ratio for credit institutions

Official Journal L 386, 30/12/1989, pp. 0014–0022

Finnish special edition...: Chapter 6, Volume 3, p. 39

Swedish special edition...: Chapter 6, Volume 3, p. 39

CONSLEG–89L0647–28/04/1992–17 p.

389L0646

Second Council Directive 89/646/EEC of 15 December 1989 on the coordination of laws, regulations and administrative provisions relating to the taking up and pursuit of the business of credit institutions and amending Directive 77/780/EEC

Official Journal L 386, 30/12/1989, pp. 0001–0013

Finnish special edition...: Chapter 6, Volume 3, p. 27

Swedish special edition...: Chapter 6, Volume 3, p. 27

CONSLEG–89L0646–28/04/1992–30 p.

CONSLEG–77L0780–30/12/1989–24 p.

389L0299

Council Directive 89/299/EEC of 17 April 1989 on the own funds of credit institutions

Official Journal L 124, 05/05/1989, p. 0016–0020

Finnish special edition...: Chapter 6, Volume 2, p. 211

Swedish special edition...: Chapter 6, Volume 2, p. 211
CONSLEG–89L0299–28/04/1992–16 p.

389L0117

Council Directive 89/117/EEC of 13 February 1989 on the obligations of branches established in a Member State of credit institutions and financial institutions having their head offices outside that Member State regarding the publication of annual accounting documents
Official Journal L 044, 16/02/1989, p. 0040–0042
Finnish special edition...: Chapter 6, Volume 2, p. 200
Swedish special edition...: Chapter 6, Volume 2, p. 200

387X0063

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387X0062

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386L0635

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385L0345

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377L0780

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373L0183

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Finnish special edition....: Chapter 6, Volume 1, p. 138

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2. EU LEGISLATION ON INSURANCE**398L0078**

Directive 98/78/EC of the European Parliament and of the Council of 27 October 1998 on the supplementary supervision of insurance undertakings in an insurance group

Official Journal L 330, 05/12/1998, pp. 0001–0012

397D0828

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395L0026

European Parliament and Council Directive 95/26/EC of 29 June 1995 amending Directives 77/780/EEC and 89/646/EEC in the field of credit institutions, Directives 73/239/EEC and 92/49/EEC in the field of non-

life insurance, Directives 79/267/EEC and 92/96/EEC in the field of life assurance, Directive 93/22/EEC in the field of investment firms and Directive 85/611/EEC in the field of undertakings for collective investment in transferable securities (UCITS), with a view to reinforcing prudential supervision

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393D0043

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392X0048

92/48/EEC: Commission Recommendation of 18 December 1991 on insurance intermediaries

Official Journal L 019, 28/01/1992, pp. 0032–0033

392L0096

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392L0049

Council Directive 92/49/EEC of 18 June 1992 on the coordination of laws, regulations and administrative provisions relating to direct insurance other than life assurance and amending Directives 73/239/EEC and 88/357/EEC (third non-life insurance Directive)

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391R2155

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Agreement between the European Economic Community and the Swiss Confederation on direct insurance other than life assurance
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391L0675

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Official journal NO. L 374, 31/12/1991, pp. 0032–0033
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391L0674

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391L0371

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391D0370

91/370/EEC: Council Decision of 20 June 1991 on the conclusion of the Agreement between the European Economic Community and the Swiss Confederation concerning direct insurance other than life assurance
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391D0323

91/323/EEC: Commission Decision of 30 May 1991 relating to the application of Council Directive 72/166/EEC on the approximation of the laws of the Member States relating to insurance against civil liability in respect of the use of motor vehicles and to the enforcement of the obligation to insure against such liability
Official Journal L 177, 05/07/1991, pp. 0025–0036
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390L0619

Council Directive 90/619/EEC of 8 November 1990 on the coordination of laws, regulations and administrative provisions relating to direct life assurance, laying down provisions to facilitate the effective exercise of freedom to provide services and amending Directive 79/267/EEC

Official Journal L 330, 29/11/1990, pp. 0050–0061

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Swedish special edition....: Chapter 6, Volume 3, p. 67

390L0618

Council Directive 90/618/EEC of 8 November 1990 amending, particularly as regards motor vehicle liability insurance, Directive 73/239/EEC and Directive 88/357/EEC which concern the coordination of laws, regulations and administrative provisions relating to direct insurance other than life assurance

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390L0232

Third Council Directive 90/232/EEC of 14 May 1990 on the approximation of the laws of the Member States relating to insurance against civil liability in respect of the use of motor vehicles

Official Journal L 129, 19/05/1990, pp. 0033–0035

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Swedish special edition....: Chapter 13, Volume 19, p. 189

388L0357

Second Council Directive 88/357/EEC of 22 June 1988 on the coordination of laws, regulations and administrative provisions relating to direct insurance other than life assurance and laying down provisions to facilitate the effective exercise of freedom to provide services and amending Directive 73/239/EEC

Official Journal L 172, 04/07/1988, pp. 0001–0014

Finnish special edition....: Chapter 6, Volume 2, p. 175

Swedish special edition....: Chapter 6, Volume 2, p. 175

387L0344

Council Directive 87/344/EEC of 22 June 1987 on the coordination of laws, regulations and administrative provisions relating to legal expenses insurance

Official Journal L 185, 04/07/1987, pp. 0077–0080

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387L0343

Council Directive 87/343/EEC of 22 June 1987 amending, as regards credit insurance and suretyship insurance, First Directive 73/239/EEC on the coordination of laws, regulations and administrative provisions relating to the taking-up and pursuit of the business of direct insurance other than life assurance

Official Journal L 185, 04/07/1987, pp. 0072–0076

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384L0641

Council Directive 84/641/EEC of 10 December 1984 amending, particularly as regards tourist assistance, the First Directive (73/239/EEC) on the coordination of laws, regulations and administrative provisions relating to the taking-up and pursuit of the business of direct insurance other than life assurance

Official Journal L 339, 27/12/1984, pp. 0021–0025

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384L0005

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381X0076

81/76/EEC: Commission Recommendation of 8 January 1981 on accelerated settlement of claims under insurance against civil liability in respect of the use of motor vehicles

Official Journal L 057, 04/03/1981, p. 0027–0027

Spanish special edition....: Chapter 13, Volume 11, p. 162

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379L0267

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Official Journal L 063, 13/03/1979, pp. 0001–0018

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378L0473

Council Directive 78/473/EEC of 30 May 1978 on the coordination of laws, regulations and administrative provisions relating to Community co-insurance

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Portuguese special edition Chapter 6, Volume 2, p. 28

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377L0092

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Official Journal L 026, 3/01/1977, pp. 0014–0019

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376L0580

Council Directive 76/580/EEC of 29 June 1976 amending Directive 73/239/EEC on the coordination of laws, regulations and administrative provisions relating to the taking up and pursuit of the business of direct insurance other than life assurance

Official Journal L 189, 13/07/1976, pp. 0013–0014

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Portuguese special edition Chapter 6, Volume 1, p. 217

Finnish special edition...: Chapter 6, Volume 1, p. 188

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374X0165

74/165/EEC: Commission Recommendation of 6 February 1974 to the Member States concerning the application of the Council Directive of 24 April 1972 on the approximation of the laws of the Member States relating to the use of motor vehicles, and to the enforcement of the obligation to insure against such liability

Official journal NO. L 087, 30/03/1974, p. 0012–0012

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373L0240

Council Directive 73/240/EEC of 24 July 1973 abolishing restrictions on freedom of establishment in the business of direct insurance other than life assurance

Official Journal L 228, 16/08/1973, pp. 0020–0022

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373L0239

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Official Journal L 228, 16/08/1973, pp. 0003–0019

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373X0185

73/185/EEC: Commission Recommendation of 15 May 1973 relating to the implementation by the original Member States of the Council Directive of 24 April 1972 on the approximation of the laws of the Member States relating to insurance against civil liability in respect of

the use of motor vehicles and to the enforcement of the obligation to insure against such liability

Official Journal L 194, 16/07/1973, p. 0013–0013

372L0430

Council Directive 72/430/EEC of 19 December 1972 amending Council Directive 72/166/EEC of 24 April 1972 on the approximation of the laws of the Member States relating to insurance against civil liability in respect of the use of motor vehicles and to the enforcement of the obligation to insure against such liability

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Swedish special edition....: Chapter 6, Volume 1, p. 114

372L0166

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Official Journal L 103, 02/05/1972, pp. 0001–0004

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364L0225

Council Directive 64/225/EEC of 25 February 1964 on the abolition of restrictions on freedom of establishment and freedom to provide services in respect of reinsurance and retrocession

Official Journal 056, 04/04/1964, pp. 0878–0880

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Finnish special edition....: Chapter 6, Volume 1, p. 20

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3. EU LEGISLATION ON SECURITIES

395L0026

European Parliament and Council Directive 95/26/EC of 29 June 1995 amending Directives 77/780/EEC and 89/646/EEC in the field of credit institutions, Directives 73/239/EEC and 92/49/EEC in the field of non-life insurance, Directives 79/267/EEC and 92/96/EEC in the field of life assurance, Directive 93/22/EEC in the field of investment firms and Directive 85/611/EEC in the field of undertakings for collective investment in transferable securities (UCITS), with a view to reinforcing prudential supervision

Official Journal L 168, 18/07/1995, pp. 0007–0013

394L0018

Directive 94/18/EC of the European Parliament and of the Council of 30 May 1994 amending Directive 80/390/EEC coordinating the requirements for the drawing up, scrutiny and distribution of the listing particulars to be published for the admission of securities to official stock-exchange listing, with regard to the obligation to publish listing particulars

Official Journal L 135, 31/05/1994, pp. 0001–0004

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393L0022

Council Directive 93/22/EEC of 10 May 1993 on investment services in the securities field

Official Journal L 141, 11/06/1993, pp. 0027–0046

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390L0211

Council Directive 90/211/EEC of 23 April 1990 amending Directive 80/390/EEC in respect of the mutual recognition of public-offer prospectuses as stock-exchange listing particulars

Official Journal L 112, 03/05/1990, pp. 0024–0025

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389L0592

Council Directive 89/592/EEC of 13 November 1989 coordinating regulations on insider dealing

Official Journal L 334, 18/11/1989, pp. 0030–0032
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389L0298

Council Directive 89/298/EEC of 17 April 1989 coordinating the requirements for the drawing-up, scrutiny and distribution of the prospectus to be published when transferable securities are offered to the public

Official Journal L 124, 05/05/1989, pp. 0008–0015
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Swedish special edition....: Chapter 6, Volume 2, p. 203

388L0627

Council Directive 88/627/EEC of 12 December 1988 on the information to be published when a major holding in a listed company is acquired or disposed of

Official Journal L 348, 17/12/1988, pp. 0062–0065
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388L0220

Council Directive 88/220/EEC of 22 March 1988 amending, as regards the investment policies of certain UCITS, Directive 85/611/EEC on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investments in transferable securities (UCITS)

Official Journal L 100, 19/04/1988, pp. 0031–0032
Finnish special edition....: Chapter 6, Volume 2, p. 173
Swedish special edition....: Chapter 6, Volume 2, p. 173

387L0345

Council Directive 87/345/EEC of 22 June 1987 amending Directive 80/390/EEC coordinating the requirements for the drawing-up, scrutiny and distribution of the listing particulars to be published for the admission of securities to official stock exchange listing

Official Journal L 185, 04/07/1987, pp. 0081–0083
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Swedish special edition....: Chapter 6, Volume 2, p. 165

385X0612

85/612/EEC: Council Recommendation of 20 December 1985 concerning the second subparagraph of Article 25 (1) of Directive 85/611/EEC

Official journal NO. L 375, 31/12/1985, p. 0019–0019

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Portuguese special edition Chapter 6, Volume 3, p. 54

385L0611

Council Directive 85/611/EEC of 20 December 1985 on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS)

Official Journal L 375, 31/12/1985, pp. 0003–0018

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Finnish special edition...: Chapter 6, Volume 2, p. 116

Swedish special edition...: Chapter 6, Volume 2, p. 116

382L0148

Council Directive 82/148/EEC of 3 March 1982 amending Directive 79/279/EEC coordinating the conditions for the admission of securities to official stock exchange listing and Directive 80/390/EEC coordinating the requirements for the drawing up, scrutiny and distribution of the listing particulars to be published for the admission of securities to official stock exchange listing

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Finnish special edition...: Chapter 6, Volume 2, p. 86

Swedish special edition...: Chapter 6, Volume 2, p. 86

382L0121

Council Directive 82/121/EEC of 15 February 1982 on information to be published on a regular basis by companies the shares of which have been admitted to official stock-exchange listing

Official Journal L 048, 20/02/1982, pp. 0026–0029

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Portuguese special edition Chapter 6, Volume 2, p. 133

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380L0390

Council Directive 80/390/EEC of 17 March 1980 coordinating the requirements for the drawing up, scrutiny and distribution of the listing particulars to be published for the admission of securities to official stock exchange listing

Official Journal L 100, 17/04/1980, pp. 0001–0026
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Finnish special edition.....: Chapter 6, Volume 2, p. 56
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379L0279

Council Directive 79/279/EEC of 5 March 1979 coordinating the conditions for the admission of securities to official stock exchange listing

Official Journal L 066, 16/03/1979, pp. 0021–0032
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377X0534

77/534/EEC: Commission Recommendation of 25 July 1977 concerning a European code of conduct relating to transactions in transferable securities

Official Journal L 212, 20/08/1977, pp. 0037–0040
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4. EU LEGISLATION ON PAYMENT SYSTEMS**398L0026**

Directive 98/26/EC of the European Parliament and of the Council of 19 May 1998 on settlement finality in payment and securities settlement systems

Official Journal L 166, 11/06/1998, pp. 0045–0050

397X0489

97/489/EC: Commission Recommendation of 30 July 1997 concerning transactions by electronic payment instruments and in particular the relationship between issuer and holder (Text with EEA relevance)

Official journal NO. L 208, 02/08/1997, pp. 0052–0058

397L0005

Directive 97/5/EC of the European Parliament and of the Council of 27 January 1997 on cross-border credit transfers

Official journal NO. L 043, 14/02/1997, pp. 0025–0031

Annex 2

Financial Services Action Plan Progress Report

Introduction

The European Council in Cologne and the European Parliament have supported both the content and urgency of the Action Plan for Financial Services.¹ The Action Plan details the work that has to be accomplished to reap the full benefits of the euro and to ensure the continued stability and competitiveness of EU financial markets. The Council invited the Commission to report on a regular basis on the progress made and to present its first report before the end of 1999. This first report to the Council and to the European Parliament tracks progress over the first six months (until 10 October) since the adoption of the Action Plan. In view of the short period since the adoption of the Action Plan, this report focuses in particular on the legislative progress that has been made. Attached is a detailed breakdown of the separate action points. The second progress report will be made to the ECOFIN Council and the European parliament in mid 2000: it will contain an assessment of the progress, direction and results of the integration of the EU financial services sector and its contribution to growth and employment in the Union.

Mechanisms and Process

The mechanisms for implementing the Action Plan are critical to its achievement. Over the past six months, and in line with the suggestions in the Action Plan, the Commission has put in place the following structures.

- The *Financial Services Policy Group (FSPG)*, comprising personal representatives of economic and finance ministers, has resumed its tasks as a forum to forge consensus between national ministries involved in financial services regulation. The FSPG has met twice since the adoption of the action plan and has assisted the Commission in monitoring progress and preparing this report.

- Initial informal discussions have taken place with representatives of the *European Parliament* with a view to finding arrangements to discuss major policy orientations with parliamentarians at an early stage.
- *EU representative bodies* have submitted short lists of experts to help the Commission assess certain implications of technical issues raised in the Action Plan. These “Forum Groups,” composed of market experts, are initially considering issues related to market manipulation; updating the Investment Services Directive; collateral; consumer information requirements for retail financial services; and differences in national legislation that hinder the cross-border marketing of financial services. Further groups may be set up in the future.

Some Progress Has Been Made on Implementing the Action Plan

The challenge set by the Action Plan for all of the Union’s institutions is considerable. It will demand intense and sustained activity if we are to meet the rigorous schedule demanded by the rapidly changing financial services sectors. The first months have seen welcome progress. Already the Commission has issued its Communication on Pension Funds and is actively preparing a draft directive. It has also adopted a proposal for a directive to amend the Money Laundering Directive. With regard to *wholesale markets*, work is well under way within the Forum of European Securities Commissions (FESCO) and the Accounting Contact Committee to meet the timeframe set out in the Action Plan. The Commission also recently adopted its Communication on the implementation of the Risk Capital Action Plan. The Commission will increase its efforts in the field of accounting policy and will present proposals to enhance regulatory cooperation between securities supervisors. Progress to achieve open and secure *retail markets* is also satisfactory. Discussions in the Council and the European Parliament on the distance selling proposal for financial services are continuing. The preparation of a legislative proposal for insurance intermediaries is on track, as is the work on a number of Communications (consumer information, insurance) and a Green Paper on E-Commerce and financial services. Work on *prudential rules* has also advanced. The proposal for a E-Money Directive is advancing through Council and European Parliament. The review of bank capital rules in parallel with the G-10 Basel Committee on Banking Supervision, the insurance solvency requirements, and the supervision of financial conglomerates are on schedule. The adoption of a Commission Recommendation on the disclosure of financial instruments is imminent. Finally, work on wider conditions for a single market are continuing,

with a view to direct taxation. The Council deliberations on the Commission proposal on a minimum taxation of savings income are continuing at full speed and it is hoped that a political agreement can be reached before the end of the year. The same holds, *mutatis mutandis*, for the work of the Council group working on the implementation of the Code of Conduct on business taxation. After first fruitful discussions, *inter alia* in the Taxation Policy group, work on the taxation of supplementary pensions and financial services in general will be continued as a priority in 2000. A Commission proposal for supplementary pensions is already under preparation.

. . . But There Is a Need for Greater Effort

The pressure to make progress demands a sustained response from all institutions. The European Parliament and the Council have been invited in the Action Plan to make every effort to ensure rapid agreement and implementation of the individual legislative measures. There must be a clear political commitment by all institutions and actors to commit the necessary resources if we are to achieve the ambitious deadlines that have been agreed upon. Indeed, lack of progress is noticeable in particular in the following areas:

- Political agreement on the proposal for a **Take Over Bids Directive**, which would make the final adoption of this proposal possible, has still not been achieved in the Council. The main stumbling block is to find a mutually acceptable solution for Spain and the United Kingdom over the status of Gibraltar.
- The proposed directive on the **Winding-up and Liquidation of Banks** was presented to the Council and European Parliament in 1985. Here, too, the lack of progress is the absence of a mutually acceptable solution on the application of winding-up and liquidation procedures in Gibraltar.
- Despite successive political commitments at the most senior level, there is little progress on the **European Company Statute**. This has had implications for two other measures in the field of company law (the **10th Company Law Directive** and the **14th Company Law Directive**).
- The preparation of a **Commission Recommendation on Prior Information for Consumers** will build on progress from industry in developing best practices. Delays within industry may soon be

resolved. The Commission has also established a "Forum Group" with industry and consumer representatives to make progress.

- **The Commission Communications on Payments in the Single Market and Fraud and Counterfeiting in Payment Systems** will be presented before the end of the year. The short delay in their adoption is due to administrative reasons caused by The change in the Commission over the summer.

An important stumbling block to the political progress of important initiatives has therefore been the absence of a solution for two Member States (Spain and the UK) over any direct or indirect reference to Gibraltar or its status in proposed legislation. Continuation of this impasse carries heavy costs for the development of a single financial market. It is to be hoped that the two Member States concerned can finalise practical solutions to break the deadlock.

Progress on the Action Plan for Financial Services

This table provides a first overview of progress on actions included in the Action Plan for Financial Services (COM(1999) 232). The reporting date is 10 October 1999. A star (★) indicates an action which has been successfully completed. A cross (+) indicates actions where some progress has been achieved in meeting the targets set in the Action Plan. A minus sign (-) indicates those for which progress is disappointing.

The tables summarize the current situation and provide the Commission's assessment of the degree to which Community institutions and Member States are achieving the objectives set out in the Action Plan. Where appropriate, a comment has been added in the final column to indicate the next steps to be taken.

Strategic Objective 1: A Single EU Wholesale Market

<i>Action</i>	<i>Timeframe</i>	<i>State of Play</i>	<i>Assessment</i>	<i>Follow-up</i>
<i>Raising capital on an EU-wide basis:</i>				
Upgrade the Directives on Prospectuses through a possible legislative amendment	For issue by mid 2000 Adoption: 2002	Reflection continues within the Commission in close co-operation with a FESCO working-party	+	Preliminary results from FESCO expected in December 1999 Commission's Contact Committee meeting first quarter of 2000
Update the Directive on Regular Reporting (82/121/EEC)	Launch consultation by mid 2000 Proposal: 2001 Adoption: 2002	Work continuing in the Commission in close co-operation with FESE (Federation of EU Stock Exchanges)	+	Commission's Contact Committee meeting spring quarter of 2000 Consultation of FESCO and industry spring 2000
<i>Establishing a common legal framework for integrated securities and derivatives markets:</i>				
Issue a Commission Communication on distinction between "sophisticated" investors and retail investors.	Draft for issue by end 1999	Draft Communication under preparation in close co-operation with FESCO	+	FESCO work should be completed end December 1999 Commission adoption of final draft end 1999 Member State and industry consultation first quarter 2000
Directive to address market manipulation.	Proposal by end 2000 Adoption: 2003	Work continuing in close co-operation with FESCO and the industry ('Forum Group')	+	Industry "Forum Group" to complete work by March 2000 Preliminary results available from FESCO first quarter 2000

Green Paper on upgrading the ISD	Publish Green Paper: mid-2000	Work continuing in close co-operation with FESCO and the industry ("Forum Group")	+	Preliminary results available from FESCO December 1999 Industry 'Forum Group' to complete work by February 2000
<i>Toward a single set of financial statements for listed companies:</i>				
Amend the 4th and 7th Company Law Directives to allow fair value accounting	Proposal autumn-99 Adoption: 2001	The draft proposal is being prepared for adoption by the Commission.	+	Adoption by the Commission by the end of 1999
Commission Communication updating the EU accounting strategy	For issue by end-99 (now deferred into the first half of 2000)	The proposal has now been deferred until the first quarter of 2000. Following policy discussions in the FSPG and the Contact Committee, an outline for the Communication will be discussed with Member States end October in the Accounting Contact Committee. In addition, bilateral discussions are being pursued with Member States.	+	Discussion of an outline of a Communication in the Accounting Contact Committee on 21/22 October, and the Accounting Advisory Forum on 23 November
Modernisation of the accounting provisions of the 4th and 7th Company Law Directives	Proposal end-2000 Adoption: 2002	Progress is linked to progress on the Communication to update the EU Accounting Strategy (see above) and is therefore on target.	+	Discussion in the Accounting Contact Committee early 2000

(Table continues on the following page.)

<i>Action</i>	<i>Timeframe</i>	<i>State of Play</i>	<i>Assessment</i>	<i>Follow-up</i>
Commission Recommendation on EU auditing practices	For issue by end-99	Following discussions in two meetings of the Committee on Auditing a draft recommendation has been prepared for Member States in the Accounting Contact Committee.	+	Discussion in the Accounting Contact Committee (21/22 October) and the Committee on Auditing (6/7 December)
<i>Containing systemic risk in securities settlement:</i> Implementation of the Settlement Finality Directive	Commission to continue monitoring of implementation in a working Group. Commission report to Council end 2002	Transposition of the Directive already completed in: BE, IR, NL done	+	9 November: next interpretation meeting MS experts Implementation date: 11.12.1999
Directive on cross-border use of collateral.	Launch consultation autumn-99: proposal end-2000. Adoption: 2003	Preparation within the Commission of preliminary discussions with industry ("Forum Group"), also taking into account the "Giovannini Group" Report on EU Repo Markets	+	Discussions with industry ("Forum Group") started October 1999
<i>Toward a secure and transparent environment for cross-border restructuring:</i> Political agreement of the proposed directive on Take Over Bids	Mid-99 Adoption: 2000	Final adoption awaiting political agreement on the issue of Gibraltar	-	Final adoption expected before the end of 1999

Political agreement on the European Company Statute	Mid-1999 Adoption: 2000	No further progress	-	No progress expected before the end of 1999
Review of EU corporate governance practices	Launch review early 2000	A terms of reference for the proposed study is currently being drafted.	+	Issue of terms of tender for a study by end of 1999
Amend the 10th Company Law Directive	Proposal in autumn 1999 Adoption: 2002	Awaiting political agreement on the ECS	-	Commission led meeting of Member State company law experts on 30 September/ 1 October
14th Company Law Directive	Proposal in autumn 1999 Adoption: 2002	Awaiting political agreement on the ECS	-	Commission led meeting of Member State company law experts on 30 September/ 1 October
<i>A single market that works for investors:</i>				
Commission Communication on Funded pension Schemes	Issued on 11 May 1999 Com (1999)134		★	
Political agreement on the proposed directives on UCITS	End-1999 Adoption: 2000	Negotiations continue in the Council. EP will start its first reading	+	Political agreement should be reached end 1999. First reading in EP end 1999
Directive on the prudential supervision of pension funds	Proposal: Mid 2000 Adoption: 2002	The Commission is finalizing a first draft text of a directive for discussion with member states experts. The FSPG discussed the outline of a draft directive at its October meeting	+	First discussion of a draft outline of the directive with Member States experts on 25 November 1999: Early 2000: discussion with MS experts on draft Directive (2nd draft)

Strategic Objective 2: Open And Secure Retail Markets

<i>Action</i>	<i>Timeframe</i>	<i>State of Play</i>	<i>Assessment</i>	<i>Follow-up</i>
Political agreement on proposal for a directive on the distance selling of financial services	End 99 Adoption 2000	Amended proposal adopted by the Commission (COM(1999) 385 of 23 July 1999)	+	Technical discussions are underway in the Council, with a view to achieving a common position by November 1999.
Commission communication codifying clear and comprehensible information for purchasers	Review of market practices to begin end 99: Communication: mid 2000	Discussions with industry ("Forum Group") in preparation	+	Meeting with industry ("Forum Group") started October 1999
Recommendation to support best practice in respect of information provision (mortgage credit)	For issue by end-99	Dialogue was interrupted: the Commission is seeking to restart	-	Recommendation end 1999
Commission report on substantive differences between national arrangements relating to consumer-business transactions	Review to begin autumn 1999: status report - mid-2000: Discussions with Council, EP to begin end-2000.	Discussions with industry ("Forum Group") in preparation	+	Meeting with industry ("Forum Group") started October 1999 Market consultation beginning 2000 Draft consultancy report autumn 2000: for examination with MS

Interpretative Communication on the freedom to provide services and the general good in insurance	For issue by: end 1999	All services have agreed draft. Some minor translation corrections to be made, but otherwise on track for adoption by Commission in end 1999.	+	Commission adoption imminent
Proposal for amendment of Insurance Intermediaries Directive	Proposal mid-2000 Adoption: 2002	Draft proposal for a Directive has been prepared and has been discussed by Member State experts in September.	+	Meetings with Member States experts, industry and consumers will continue in the 2nd semester of 1999. The IC will be consulted beginning 2000. Proposal for a directive: summer 2000
Commission Communication on a single market for payments	For issue summer 1999	Communication to be adopted by the Commission end 1999	-	
Commission Action Plan to prevent fraud and counterfeiting in payment systems	Communication for issue by: end-1999	Draft Communication in preparation	-	Informal consultation of the market will take place in November
Commission green paper on an e-commerce policy for financial services	For issue by: mid-2000	Discussion on policy outline continuing in the FSPG in October	+	A first draft Green Paper available end Nov.; interested parties will be consulted

Strategic Objective 3: State-of-the-art Prudential Rules And Supervision

<i>Action</i>	<i>Timeframe</i>	<i>State of Play</i>	<i>Assessment</i>	<i>Follow-up</i>
Adopt the proposed directive on the winding-up and liquidation of insurance undertakings	New first reading in EP beginning 2000. Political agreement as soon as possible. Adoption: 2001	Work in Council working group progressing steadily but slowly due to technical issues. Finnish presidency very co-operative. A Council working group meeting took place on 23/24 September and other meetings has been scheduled for October and November.	+	An amended proposal will be adopted by the Commission as soon as the evolution of the file in Council makes this appropriate (most likely in November/December)
Adopt the proposed directive on the winding-up and liquidation of banks	Common position: end-99 Adoption: 2001	The Finnish presidency will re-open discussions in the Council working group.	-	Awaiting breaking of deadlock in Council on the "Gibraltar" issue.
Adopt the proposal for an Electronic Money directive	Common position: autumn 99 Adoption: 2000	The Finnish presidency is seeking a common position in the ECOFIN Council of 8 November	+	Second reading in EP and likely adoption of the proposal in the first quarter of 2000.
Amendment of the money laundering directive	Commission adopted on 14.7.99 Adoption: 2001	Commission proposal adopted on 14 July 1999 (COM(1999)352). A first exchange of views took place in EP in September.	+	The Finnish presidency has scheduled at least 2 working group meetings before end '99

	Commission Recommendation on disclosure of financial instruments	Communication mid 1999	Adoption by the Commission scheduled for end 1999.	+	
	Amend the directives governing the capital framework for banks and investment firms	Proposal for directive: 2001, pending developments in Basel Adoption: 2002	Discussions in the BAC have been completed with a view to agreeing on relevant issues and possible policy options. The impact of new rules on securities firms is being examined.	+	A Commission consultation paper will be made available to the industry end October, beginning November. The results of the consultation will help determine the EU position toward the proposals of the G-10 Basel Committee
355	Amend the solvency margin requirements in the insurance directives	Proposal for directive: mid 2000 Adoption: 2003	Additional technical meetings held on 17/6 and 5/7 with follow-up meeting scheduled for 15 Nov. Work programme is proceeding satisfactorily.	+	The IC will be consulted on the results of technical discussions in spring 2000. The Commission will draw its conclusions from these discussions and adopt its proposal mid 2000
	Proposal to amend the insurance directives and the ISD to permit information exchange with third countries	Proposal autumn 1999 Adoption: 2001	Internal procedure for Commission proposal underway	+	Adoption of a Commission proposal is scheduled for end 1999. Discussions in a Council working group can start in November

(Table continues on the following page.)

<i>Action</i>	<i>Timeframe</i>	<i>State of Play</i>	<i>Assessment</i>	<i>Follow-up</i>
Development of prudential rules for financial conglomerates following the recommendations of the "Joint Forum"	Proposal: end- 2000 Adoption: 2002	The Commission's regulatory committees (BAC, HLSS and IC) reached agreement on a work mandate for a technical group of experts. The first meeting of the group is scheduled for end November	+	Recommendations from the technical group will be discussed in the BAC, HLSS and IC. The Commission will draw conclusions from those deliberations
Creation of a Securities Committee	Proposal end 2000 Adoption: 2002	The Commission is considering the consequences of the Council's new comitology decision of July 1999	+	The Commission will define the structure and content of a proposal for a directive

General Objective: Wider Conditions For An Optimal Single Financial Market

<i>Action</i>	<i>Timeframe</i>	<i>State of Play</i>	<i>Assessment</i>	<i>Follow-up</i>		
Adopt a Directive on the minimum taxation of savings income		Political agreement by November 1999 Adoption: 2000		Work in Council is progressing steadily. The Finnish presidency is seeking progress.	+	
Implementation of the December 1997 Code of Conduct on business taxation		Ongoing examination in the Code of Conduct group		Work on the Code of Conduct Group is progressing as scheduled.	+	A final report will be sent to the ECOFIN Council in November 1999.
Review of taxation of financial service products		Discussions in Tax Policy Group		A preliminary analysis and discussions have started.	+	Discussions will continue in 2000.
Commission proposals for co-ordination of the tax arrangements governing supplementary pensions		Proposal 2000 Adoption: 2002/3		Technical discussions have taken place with Member States in a technical sub group of the Taxation Policy Group.	+	A draft proposal is under preparation

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¹ Financial Services - Implementing the Framework for financial markets: Action Plan. Commission Communication of 11.05.1999 COM(1999)232

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