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WORLD BANK GROUP
Global Knowledge & Research Hub in Malaysia

Development Digest

Featured Work from the World Bank Group Global Knowledge and Research Hub in Malaysia

New Narratives in Economic Growth

Development Digest

October 2016

IN THIS ISSUE

FOREWORD

SELAMAT DATANG ! [WELCOME!]

The team at the World Bank Group Global Knowledge and Research Hub in Malaysia is honored to present the inaugural issue of the Development Digest. This publication will feature some of the key work coming out from the Hub, gathered from the various practice and research teams based in Kuala Lumpur every six months.

We commence this issue with a dedication to the memory of the late Datuk Dr. Sundaran Annamalai. Dr. Sundaran was and remains a key figure, both in Malaysia and in the World Bank Group, having played a pivotal role in the setting up of the Hub. We pay tribute to his life, his fruitful career and his profound contributions to Malaysia and the World Bank Group.

The first part touches on the new and unique Hub in Malaysia–the first global center of the World Bank Group that unites its operational practices with its global research and indicators groups. The remainder of the digest highlights emerging new research on key topics of interest, both in Malaysia and globally.

This publication adds a comprehensive editorial dimension to the rich work of the World Bank Group Global Knowledge and Research Hub in Malaysia. This diverse body of work ranges from matters related to unlocking new dimensions of economic growth, to new generations of trade agreements, to the impacts of sectoral transformation and the importance of human capital development.

Looking forward, the Malaysia Hub will continue to scale up its work, with its diverse team of experts and leveraging new local and international partners, including academic institutions and think tanks.

We hope that this publication will serve as a bridge to connect minds and ideas, promote knowledge sharing and build a network of discourse on key areas of economic development.

From the team at the World Bank Group Global Knowledge and Research Hub in Malaysia

TRIBUTE TO:

DATUK DR SUNDARAN ANNAMALAI

This first issue of Development Digest is dedicated to the memory of our dear esteemed colleague, Datuk Dr. Sundaran Annamalai.

Datuk Dr. Sundaran served admirably as the World Bank's Executive Director for South East Asia from 2012 to 2014, before returning to the Malaysian civil service to continue his successful career as Deputy Secretary-General of the Treasury and Secretary General of the Ministry of Plantation Industries and Commodities.

Datuk Dr. Sundaran was instrumental in translating the long-standing relationship between the Government of Malaysia and the World Bank Group into the creation of the new Global Knowledge and Research Hub in Kuala Lumpur in 2016. As one of its chief architects, his spirit, unwavering dedication and keen intellect remain a foundation of our work and our mission. As one of our family, he remains in our hearts and minds.

The World Bank Group family gratefully acknowledges the enduring contributions of the late Datuk Dr. Sundaran and his esteemed family.

A GLOBAL HUB FOR DEVELOPMENT SOLUTIONS

The World Bank Group Global Knowledge and Research Hub in Malaysia is the first office of its kind for the World Bank. It is a Knowledge and Research Hub that serves as a global platform to share Malaysia's development experience by leveraging local and international expertise and a network of partners.

The Hub in Malaysia was officially opened on March 28, 2016 and marked a new beginning in the relationship between the organization and the host country.

The work undertaken by the World Bank Group Global Knowledge and Research Hub in Malaysia can be summarized in three core pillars. First, the Hub provides analytical and advisory services to the Malaysian Government. Second, it helps Malaysia share its successful development experiences to other countries. And third, it carries out cutting-edge research through the Kuala Lumpur-based teams of the global research and indicators groups, while supporting the country's efforts to build its own global research capacity.

> *The Hub reflects the strategic partnership between the World Bank and Malaysia in creating a regional center of excellence that promotes learning opportunities, thought leadership and innovation.*
>
> - Datuk Muhammad Ibrahim, Governor, Bank Negara Malaysia.

Pillar 1: Sharing the Malaysia experience with the world

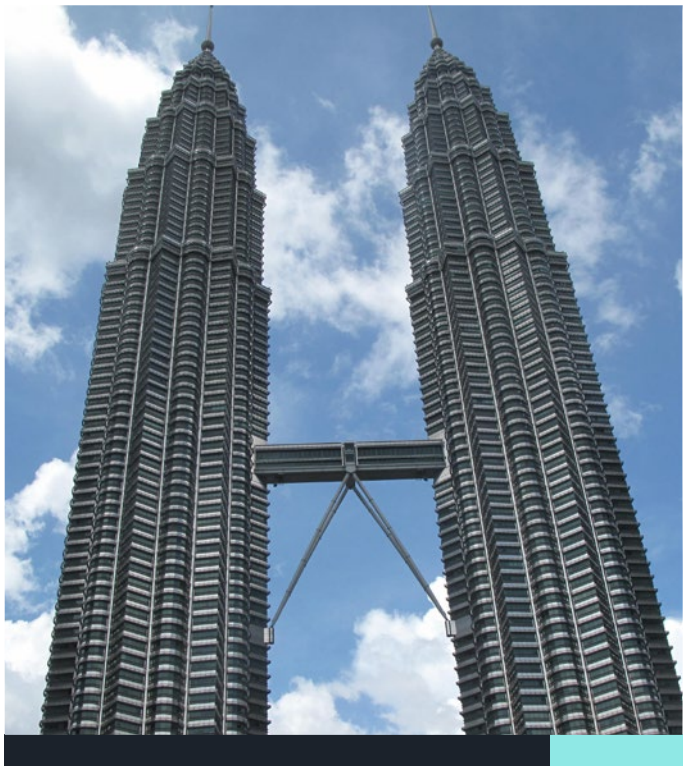
The Malaysia experience is relevant for emerging economies in Asia, Africa and elsewhere that are transitioning out of poverty and into shared prosperity.

Goals

- Organize and present Malaysia's expertise via publications, seminars, and study tours to benefit other countries
- Facilitate South-South knowledge collaboration among policymakers and researchers across regions
- Advocate for regional integration across sectors

The Malaysia experience includes

- Economic planning to support long-term national goals
- People-centered development policy and smart public investments
- Inclusive and integrated financial system
- Effective public sector governance



Pillar 2: Supporting Malaysia's goal of becoming a high-income economy

The World Bank Group's international experience will provide Malaysia with a wide array of development solutions and expertise, customized to specific challenges.

Goals

- Opening access to our global data, policy advice and technical assistance
- Connecting international expertise and Malaysia's development challenges
- Implementing advisory services across sectors and themes in support of Malaysia's 11th Development Plan

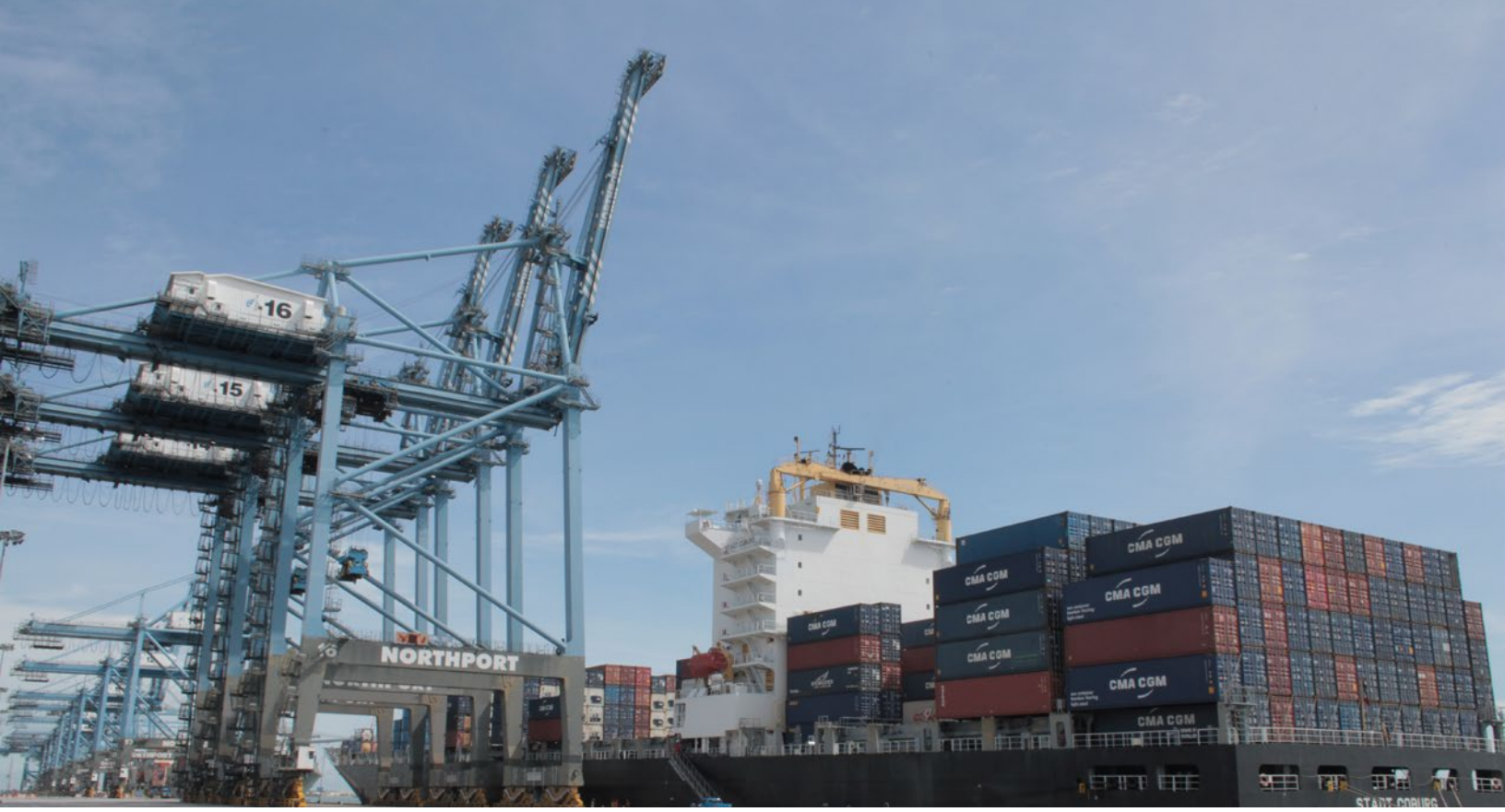
> ***[The Hub] directly supports Malaysia in achieving its goal of becoming a high-income country by 2020. The office in Malaysia will become a global center for development excellence.***
>
> - The late Datuk Dr. Sundaran Annamalai, former World Bank Executive Director for Malaysia at the World Bank, and former Secretary General for the Ministry of Plantation Industries and Commodities.

Pillar 3: Learning together for global solutions

The new hub carries out cutting-edge development policy research in partnership with local and international research institutions. Through the World Bank's Development Economics Research Group (DECRG), the Hub in Malaysia conducts original studies spanning economic growth and risk management to program evaluation and the implementation of key public services. Through the Global Indicators Group (DECIG), the Hub in Malaysia carries out primary data collection and research for the Doing Business, Enterprise Surveys and Enabling the Business of Agriculture projects.

Goals

- Conducting development policy research on global, regional and national issues
- Obtaining and processing regional and global data in the areas of Doing Business, Enterprise Surveys and Enabling the Business of Agriculture
- Connecting leading researchers and practitioners via seminars and conferences
- Hosting visiting scholars and training programs



NEW GENERATION TRADE AGREEMENTS FOR MALAYSIA

BY RAFAEL MUNOZ MORENO

Malaysia has embarked on a wave of "new generation" trade agreements that will set trade and investment rules over the next few decades.

Mega regional trade agreements, such as the Trans-Pacific Partnership (TPP), Malaysia-EU FTA (MEUFTA), and Regional Comprehensive Economic Partnership (RCEP) come with deeper commitments beyond those already set by the multilateral trading system of the WTO. They include areas such as competition policy, government procurement, investment policies and investors' protection, intellectual property rights, labor standards, and Government-Linked Companies (GLCs).

These new trade agreements open up opportunities for Malaysia to move up the value chain, diversify its exports, and create more and better jobs for its workers.

First, they widen Malaysia's market access to large trade partners (i.e. TPP represents 40 percent of global GDP), potentially opening new opportunities for FDI and trade in services.

Second, commitments in these agreements go beyond trade—they can have a significant positive impact on attracting investment, including investment that spurs innovation and technological upgrading.

Lastly, they can also spur policy advances in new areas, such as competition policies, government procurement, investment-state disputes and investment policies.

Implementation of these trade agreements does not automatically translate into economic gains. Despite the intention to promote deeper liberalization, trade agreements went through intense negotiations and bargaining processes which introduced carve outs to protect domestic interests and provide policy space for governments to regulate.

Necessary Reforms

These trade agreements can facilitate reforms to support Malaysia's transition to become a high income nation. Achieving high income status will involve advances in overcoming key constraints, such as the following:

Services: In terms of services contribution to GDP and exports, Malaysia still trails many EAP countries. An efficient services market is essential in enhancing the country's competitiveness by supporting other export sectors.

Investment: Improved investment policies can further support Malaysia's business environment and help to attract a new wave of FDI that supports the country's economic diversification. Furthermore, as Malaysia becomes more integrated with the global economy, the new trade agreements do provide additional investment safeguards for domestic firms investing abroad. For example, the Investor State Dispute Resolution mechanism.

Competition: A more open and level playing field in the domestic economy facilitates the entry of new firms, and a reallocation of resources to more productive companies. Competition provides strong incentives to innovate, raise productivity and create jobs- issues at the core of the 11th Malaysia Plan.

SMEs: SMEs in Malaysia represent 97.3 percent of firms and accounted for 35.9 percent of GDP in firms and accounted for 35.9 percent of GDP in 2015 but they only account for 17.8 percent of exports. They are substantially less productive than large firms which limit their capacity to integrate into the global value chain. Thus, undertaking productivity enhancing reforms that enable SMEs to compete effectively in the global market would be essential.

The new trade agreements can strategically support reforms in the areas mentioned above. Such reforms have high payoffs, because they broaden market access and could also lead to higher investment. Moreover, they are facilitated by firm-level incentives, as heightened foreign competition will raise the need for less-performing firms to adjust.

Increasing liberalization, competitiveness and productivity

Malaysia has several policy options that can complement its commitments under the new agreements to help ensure wider benefits.

In the short term, to the extent that Malaysia's applied policies in services trade may remain more restrictive compared to other countries in the TPP—notwithstanding the recent liberalization of foreign ownership limits—the Economic Planning Unit (EPU) may consider strengthening the coordination mechanism for the implementation of the Services Blueprint to boost competitiveness of the services sector.

In the medium term, the Ministry of International Trade and Industry (MITI) can further review policies affecting the establishment and operations of foreign services providers.

The new trade agreements facilitate improvements in the business environment that Malaysia offers to foreign investments. In the short term, MITI may consider establishing a mechanism to domestically handle investors' grievances to ensure compliance of existing policies with commitments on the investments chapter and decrease the risk of ISDS cases. Furthermore, the Malaysia Productivity Corporation can strengthen its capacity to conduct regulatory impact analysis on existing or proposed new policies affecting trade in goods and services.

Continued implementation of policies that increase competition can create a level playing field for the private sector. Malaysia has negotiated significant carve-outs on Government Linked Companies (GLCs) in the TPP agreement that provide time for these incumbents and the market structure to adapt to heightened competition.

In the short term, it will be important to assess the impact that the different sector chapters of the TPP may have on the GLCs operating in those sectors.

In the medium term, the Malaysia Competition Commission (MyCC) can implement existing regulations to prevent designated monopolies from engaging in anti-competitive practices and to foster compliance with competition-related commitments under the TPP. MyCC may consider working together with Khazanah Nasional and the Government Investment Companies Division at the Treasury to ensure smooth implementation of the competition related measures in relation to GLCs.

It will be critical to address the constraints that SMEs face in order to raise productivity and reap the benefits of emerging trade opportunities.

In the short term, SME Corp. Malaysia can carry out a preliminary assessment of the implementation of the SME Masterplan to assess its effectiveness. This initiative can help ensure that the programs being put in place are effectively implemented to realize their intended objectives. It can be complemented with a review of current R&D support programs that are administered by various agencies, to ensure that SMEs get adequate support.

In the medium term, a continued focus on an enabling regulatory framework will be key, to foster strengthened competition, and to facilitate the bankruptcy process to allow entrepreneurs to reinvent their businesses and take more risk.

For the full report of the Malaysia Economic Monitor, key highlights and video, please see: bit.ly/MEM_201606

RISE OF THE SOUTH AT A CROSSROADS: A VIEW FROM EAST ASIA AND LATIN AMERICA

The first Development Research Kuala Lumpur Conference Series featured a dialogue on inter-regional trade and integration, fusing the regional economic contexts of East Asia and Latin America into a singular conversation on the global market and economic growth.

Titled the "Rise of the South at a Crossroads: A View from East Asia and Latin America", the conference focused on the opportunities and challenges of regional and global integration, reflecting on the linkages promoted by international trade, financial flows, knowledge sharing, and diffusion of new technologies.

The one-day conference in May 2016 commenced with a World Bank Flagship Report Presentation on The Rising South – A Latin America Perspective and Implications for East Asia and Malaysia. Presenting the report was Augusto de la Torre, Chief Economist for Latin American and the Caribbean.

"The rise of the South has left a noticeable mark upon the world economy. But this unquestionable impact conceals important differences among the countries of the South. The differences between the wealth of connections from Asia, compared to those of Latin America, suggest that our region is still not benefitting from the virtuous circle created by integrating more with your neighbors and then with the world," said De la Torre.

The conference provided a venue to consider the different vantage points of East Asian and Latin American countries as their importance in global markets keeps rising.

"We have to look at alternative means of creating more sustainable growth. One of those alternatives may be greater economic integration, regionally and globally," Bank Negara deputy governor Dr Sukhdave Singh said, adding that it is becoming increasingly difficult for individual countries to determine their independent path to prosperity.

Norman Loayza, Lead Economist, Development Research in Kuala Lumpur, World Bank, builds on this fact.

"No country has been able to develop, grow, and prosper in isolation. The drive towards trade openness and market-oriented reforms that started three decades ago has led to economic growth and poverty alleviation all over the world. Yet, openness and trade agreements, in particular, are under attack from left and right," Loayza said.

While some have criticized that the initial effects of trade agreements could be relatively small, Robert Koopman, chief economist at the World Trade Organization opined that the dynamic effects that come about from increased competitiveness and productivity growth, better consumer choices and lower prices can lead to positive benefits in the economy in the long run.

"Trade agreements have very positive effects on economies, particularly on the longer run. They take actions to align domestic policies to better address some of the global challenges," Koopman said.

The conference was a cross-regional collaboration within the Bank; jointly organized by the Latin America and Caribbean Chief Economist Office and the Development Research Group, with the participation of the East Asia and Pacific Chief Economist and the support of the Malaysia Country Office.

Featured work at the event

Recent studies and developments on international economic integration, particularly from an emerging economy perspective were discussed in the afternoon section of the event. Here are the featured work:

The Rising South - A Latin America Perspective and Implications for East Asia and Malaysia

Augusto de la Torre, Tatiana Didier, Alain Ize, Daniel Lederman, and Sergio L. Schmukler (World Bank)

For most of the 20th century, the world economy was characterized by developed (North) countries acting as 'center' to a 'periphery' of developing (South) countries. However, the recent rise of developing economies suggests the need to go beyond this North-South dichotomy. This tectonic re-configuration of the global landscape has brought about significant changes to countries in the Latin America and Caribbean (LAC) region. The study is an in-depth analysis of the dynamics and nature of LAC's external connections.

Urban Networks: Connecting Markets, People, and Ideas

Edward L. Glaeser (Harvard University), Giacomo A. M. Ponzetto (University Pompeu Fabra, Barcelona), and Yimei Zou (University Pompeu Fabra, Barcelona)

Exploring the trade-off between networks and big cities: local returns to scale in innovation, the elasticity of housing supply, and the importance of local amenities. Even if there are global increasing returns, the returns to local scale in innovation may be decreasing, and that makes networks more appealing than mega-cities. Larger cities can dominate networks because of amenities, as long as the benefits of scale overwhelm the downsides of density. The skilled are more likely to prefer mega-cities than the less skilled, and the long-run benefits of either mega-cities or networks may be quite different from the short-run benefits.

Internalizing Global Value Chains: A Firm-Level Analysis

Laura Alfaro (Harvard Business School), Pol Antras (Harvard University), Davin Chor (National University of Singapore), and Paola Conconi (Université Libre de Bruxelles).

Technological progress in information and communication technology and falling trade barriers have led firms to retain within their boundaries and in their domestic economies only a subset of their production stages. A key decision facing firms worldwide is the extent of control to exert over the different segments of their production processes. Our results suggest that contractual frictions play an important role in shaping the integration choices of firms around the world.

Linkages and Economic Development

Dominick Bartelme (University of Michigan) and Yuriy Gorodnichenko (University of California, Berkeley).

Specialization is a powerful source of productivity gains, but how production networks at the industry level are related to aggregate productivity in the data is an open question. This study constructs a database of input-output tables covering a broad spectrum of countries and times, develops a theoretical framework to derive an econometric specification, and documents a strong and robust relationship between the strength of industry linkages and aggregate productivity.

The Rise of China and Labor Market Adjustments in Latin America

Erhan Artuc (World Bank), Daniel Lederman (World Bank), and Luis Diego Rojas (University of Maryland).

This paper assesses the impact of the rise of China on the trade of Latin American and Caribbean economies. The study proposes an index to measure the impact on trade, which suggests sizable effects, especially in Argentina, Brazil, Chile, Honduras, Mexico, and Paraguay. The paper uses the index and a model of labor mobility to calculate the impact of China's growth on labor markets in Argentina, Brazil, and Mexico.

For more information of the event, please see:
bit.ly/DECRG_risesouth

THE MIDDLE-INCOME TRAP: MYTH OR REALITY?

BY GREG LARSON, NORMAN LOAYZA, MICHAEL WOOLCOCK

In recent years, policymakers in slower-growing middle-income countries have been preoccupied with the notion that they are stuck in a "middle-income trap." This so-called trap has been exhaustively deliberated to see if it actually exists and policy interventions that can be made to escape it.

The "middle-income trap" may be a myth. Nonetheless, it provides impetus for policymakers to reassess their strategies based on productivity improvement once the traditional sources of economic growth have lost their strength.

Reaching a high-income level is challenging. Strong likelihoods of growth slowdowns are also expected. But stagnation is not inevitable, and middle-income countries must manage the transition responsibly, avoid pitfalls, and promote new opportunities for growth.

What is a middle-income trap?

The "middle-income trap" was first coined by Indermit Gill and Homi Kharas, comparing a general phenomenon observed in regions like Latin America and the Middle East to the possibility of slowdowns in East Asia's emerging economies.

They had observed these countries experiencing rapid growth from low-income to middle-income levels. These were transitions from low-productivity sectors fueled by cheap labor, technology, and capital like traditional agriculture to export-driven, high-productivity sectors like manufacturing.

Very often this is followed by lower growth. As the rural labor force shrinks and wages rise, the factor accumulation that once propelled high growth eventually loses strength. Unless new sources of economic growth are found, a country may find itself unable to compete with either low-wage countries that dominate mature industries or high-income countries that dominate innovative, high-technology industries.

This popular narrative has been used to describe the preoccupations of policymakers in middle-income countries, particularly in the fallout of the global financial crisis.

What does the empirical evidence suggest?

Much analytical effort has been focused on deliberating on why so few middle-income countries have transitioned into high-income status and what the proper policy approaches are. However, analyses vary considerably and in many cases point to opposite conclusions.

Some support the existence of a middle-income trap by finding empirical evidence that growth slowdowns are more likely at middle-income levels.

Others question the existence of a trap altogether. Close examination of countries' transitions between income levels shows that per capita incomes have grown steadily in majority of countries in the past six decades. This does not suggest a trap-like pattern and casts doubt on the notion that high growth was a temporary phenomenon of any particular era.

The "trap" literature is further complicated by lack of any consensus on methodology or definition. Similarly, there is no consensus on what length of time would constitute a trap.

Some studies seek to address these issues with enhanced rigor. However, there is often a degree of arbitrariness in the parameters used. At times it may seems that methodological and definitional choices are driven by the goals of the research or the characteristics of the particular country(ies) or region(s) being assessed.

Does the concept of a "trap" assists or impedes effective policy?

The debate around the middle-income trap offers no quick or easy solutions to the problem of slow growth. However, the concept has undeniable power to influence policy makers. This can be both productive and unproductive.

On one hand, the danger of being stuck in a trap can encourage desperate policymaking. Focusing on a small number of countries that have escaped the middle income trap may inspire efforts to maintain unrealistically high growth rates. When growth wavers, there may be immediate pressure to revise policies. During periods of growth, important reforms may be postponed or dismissed.

On the other hand, the middle-income trap notion may be useful to shape policy discussions on particular challenges faced by middle-income countries. Transitioning to high-income status is rare, difficult, and requires different growth strategies than the ones that propel countries out of low-income levels.

When growth related to factor accumulation declines, countries must find new sources of growth based on productivity improvement.

Four lessons from the larger literature on long-run growth

Growth does not occur randomly; rather, it responds to four main qualities consisting of public policies and institutions, as well as the effort and entrepreneurship of the private sector.

First, strong macroeconomic stabilization policies such as sound fiscal, monetary, and financial policymaking will support long-run economic growth by helping countries control inflation, avoid crises, and strengthen resilience to cyclical volatility.

Second, strong institutions and rule of law are essential to growth. The quality of governance-including public sector efficiency, control of corruption, effective legal systems and enforcement of contracts, and civil and political rights-are all associated with increased productivity and innovation.

Third, investment in education and human capital development. As the returns to physical capital accumulation diminish, the rate of productivity improvement and technological innovations depend largely on the presence of highly skilled human capital.

Finally, open and competitive markets will promote increased specialization, efficient resource allocation based on comparative advantage, improved productivity, and diffusion of knowledge and technology.

Of course, achieving and sustaining economic growth is easier said than done. External conditions and cyclical fluctuations in international trade and capital flows can weaken the impact of countries' growth efforts and policy reforms. The middle-income trap debate underscores that countries should tailor these fundamental ingredients to fit their economic and political realities and constraints.

Conclusion

The middle-income trap is a narrative of growth stagnation that reflects (and exacerbates) current and long-standing anxieties about slow growth. This anxiety is perhaps only growing more acute amid the prevailing notion of a global growth slowdown.

The transition from middle-income to high-income levels takes time, and requires countries to pursue consistently sound but evolving policies to sustain growth. Different stages of growth call for different strategies and policies, and the right reforms often take time to impact economic growth.

Ultimately, each country's growth story is unique but the general prescription remains the same. Policymakers should critically examine their growth strategies to find the most effective ways to boost productivity improvement, which is the key to supporting, nourishing, and preserving long-run economic growth.

For the full text of the Research Policy Brief, diagrams and reference list, please see: bit.ly/DECRG_incometrap

PRODUCTIVITY AS THE KEY TO ECONOMIC GROWTH AND DEVELOPMENT

BY YOUNG EUN KIM, NORMAN LOAYZA AND CLAUDIA MEZA-CUADRA

Without improvements in productivity, there is no economic growth—either sustained or inclusive.

An analysis across 132 countries shows global GDP per capita growth highly correlated with productivity growth over the period 1960–2014 (with a correlation coefficient of 0.86). Around half the variance of GDP per capita across these countries for the same period is explained by the variance of productivity.

Four components must work together to boost productivity – innovation, education, efficiency, and infrastructure. They are interrelated and influence one another and require contributions from the public and private sectors.

These interactions are explored further by analyzing six countries in Asia and Latin America: Malaysia, Singapore, and Vietnam, and Chile, Mexico, and Peru.

Innovation

Innovation in the economy can potentially lead to the development of high value-added activities through the creation of new technologies, products and processes.

Environments that promote innovation have sufficient and sustainable investment in research and development (R&D), companies with the capacity to promote and support innovation, talent resource, high-quality research institutions, university-industry collaboration, and intellectual property protection.

A comparison of factors influencing innovation indicates that Singapore and Malaysia have very favorable environments for innovation. Chile and Mexico rank third and fourth respectively, largely differentiated in lower levels of company investment in research and development and government spending on advanced technology products versus the first two countries.

Vietnam, which is ranked fifth, has higher government spending on advanced technology products than Chile and Mexico, but scores lower in quality of scientific research institutes and university-industry collaboration in research and development. Peru, ranked last, scores lowest in most factors among the six countries.

In another indicator of innovation, the annual average number of patent applications, Singapore significantly

outperformed the other five countries from 2011 to 2012 with 127.0 applications per million people. Malaysia had 11.6 applications per million people, followed by Chile with 7.1, Mexico with 1.9, Peru with 0.3, and Vietnam with 0.2.

Education

A strong education system can elevate the human capacity and capability to participate in valuable economic activities.

The comparison of indicators of education systems shows that Singapore scores the highest in all relevant factors including school enrollment, quality of primary education, adaptability of higher education to economic needs, and company investment in staff training and development. This is followed by Malaysia, Chile, Vietnam, Mexico, and Peru.

In terms of equity in access to educational opportunities, a report by the Organisation for Economic Co-operation and Development (OECD) indicates that equity in the allocation of resources between socioeconomically advantaged and disadvantaged schools is the highest in Singapore, followed by Malaysia, Vietnam, Chile, Mexico, and Peru.

In an indicator of the performance of education systems, scores on the recent PISA (Programme for International Student Assessment) test, Singapore had the highest math score of the six countries, Vietnam scored the second highest, followed by Chile, Malaysia, Mexico, and Peru.

Efficiency

Efficiency fuels economic transformation, ending less productive activities and sparking growth in higher-value activities. We looked at the evolving fabric of three main sectors – agriculture, industry and services – across the six countries.

From 1965 to 2014, the decreasing share of total value added represented by the agriculture sector and the increasing share of service sectors was a common feature. However, the share of the industry sector varied, with Mexico, Peru, Malaysia, and Vietnam on the uptrend; stable in Chile; reduction in Singapore, particularly since the mid-1980s.

Flexibility of resource allocation and use is critical. Singapore, which has demonstrated the most dramatic transformation over the six decades have the least regulatory burden on market, trade, and labor. Vietnam, on the other hand, is the most regulated country, with the highest burden on starting a business and trade and high corporate taxation and trade tariffs.

Regulatory rigidity has been an obstacle in many developing countries, impeding the adoption of new technologies and processes, the emergence of new enterprises, and the transition of companies from informal to formal sectors.

Infrastructure

The comparison of the quality of physical infrastructure in terms of transportation and electricity supply shows that Singapore and Malaysia have the first and second strongest

infrastructure of the six countries, respectively. Chile and Mexico lag behind these two mainly due to a low quality of railroads. The physical infrastructure in Vietnam and Peru is generally weak in all relevant indicators.

Good public institutions offer robust protection of intellectual property, have a transparent policy process, ensure prudent budgeting, provide reliable public security, and maintain a stable macroeconomic environment.

In turn, a stable macroeconomic environment can promote sustainable government budget balances, sufficient national savings and a stable inflation rate and debt level.

Singapore and Malaysia again rank first and second in terms of public institution performance out of the six countries followed by Chile, Vietnam, Peru and Mexico.

Conclusion

Productivity is key for economic development, and is driven by four interrelated components: innovation; education; efficiency; and infrastructure.

As the analysis of the six countries exemplifies, every country is in a different stage of development and has its own strengths and weaknesses in terms of the drivers of productivity. The investment needs and level of urgency for reform in the four main components of productivity vary by country, generally depending on the stage of economic development.

Developed countries—because they are forerunners in technology and tend to have slower economic growth—generally need to prioritize promoting innovation, while also alleviating the regulatory burden.

Developing countries typically need to prioritize strengthening physical and institutional infrastructure and primary and secondary education systems.

For the full text of the Research Policy Brief, diagrams and reference list, please see: bit.ly/DECRG_productivity

STRUCTURAL TRANSFORMATION OF THE AGRICULTURAL SECTOR

BY RAIAN DIVANBEIGI, NINA PAUSTIAN AND NORMAN LOAYZA

Trends and driving forces

Agriculture is transforming. The relative decline of basic agriculture, the rising importance of agribusiness and growing shares of high-value agricultural products in international trade with respect to traditional exports characterize the structural transformation of the sector.

Three interrelated processes are shaping the structural transformation in this sector – improvements in productivity, changing production composition, and increasing integration with domestic and international markets

Improvements in productivity. Higher yields and lower costs from existing and new farming lands have increased agricultural productivity.

Change in composition in production. The types of agricultural products have changed, from subsistence to cash crops, from food staples to intermediate inputs, and from low-value/low-risk to high-value/high-risk varieties. This change is reflected in the evolution of agricultural commodities in global markets.

Change in mode of commercialization. Agricultural market transactions have become more integrated with the rest of the economy, more dependent on finance, and more oriented to international trade. Fueled by food industries and services, agribusiness has expanded in most developing countries, despite the decline in the share of agriculture in GDP.

The three processes that characterize agricultural structural transformation have, in turn, been driven by technological progress, public goods and market access.

Technology

Technological progress has brought forth the use of more efficient irrigation, adoption of modern technologies and mechanization, and new and improved inputs (seeds, fertilizers, and pesticides). Much of the success has been generated by the combination of high rates of investment in crop research, infrastructure, and market development, and appropriate policy support that took place during the Green Revolution (1966 to 1985) and the two decades that followed.

The rapid increase in agricultural productivity resulting from the Green Revolution came from an impressive increase in yields. Global total factor productivity for agriculture nearly doubled from the 1970–89 period (0.87 percent) to 1.56 percent for the 1990–2006 period. The decrease in time to maturity allowed for an increase in cropping intensity.

This inadvertently led to a change in agriculture production composition. Access to technology influences choices in crop allocation. Modern production depends on purchased inputs; thus effective input supply systems are essential. On the ground, farmers supported the shift from traditional to modern and market-oriented agriculture, responding positively to the promotion of extension services offering new and available technology.

Public goods

By setting the right institutional and regulatory framework, governments can help increase the competitiveness of farmers, enabling them to integrate in regional and global markets.

Important elements of a conducive institutional and regulatory framework that can foster positive changes in productivity are secure, clearly defined and transferable property and land rights and the regulation and enforcement of water rights.

The transferability of land rights promotes efficiency gains by allowing land to be reallocated to more efficient users via land markets. Land consolidation is largely easier and productivity can increase through economies of scale and crop specialization.

Meanwhile, infrastructure can reduce transaction costs, protecting against shocks, and providing vital inputs. Public investment in irrigation systems can significantly reduce the dependency on rain and therefore the vulnerability to shocks such as droughts.

The examples above illustrate some of the policy and physical infrastructural enablers for more farmers to access input and product markets. This will signal a change in production. Farmers will begin to produce goods for more distant markets, and away from an exclusive focus on goods for local consumption.

As shown, the provision of public goods to strengthen farmers' competitiveness and create a favorable investment climate is key to integrate farmers into value chains and international markets, especially more demanding ones. Several factors like the establishment of sound food safety and animal and plant health standards, and a financial infrastructure with corresponding enabling regulatory framework, for example, is crucial to promote agricultural growth.

Market access

Sustained trade liberalization over the past five decades has greatly boosted exports of agricultural products from developing countries, which has multiplied eight-fold, while those of agriculture-based manufactured products has increased ten-fold.

Better market access facilitates specialization and exchange transactions in rural areas, allowing producers to allocate their land to higher value crops. Moreover, as the costs of trading agricultural products decline, farmers raise their productivity by using inputs more intensively.

Proximity to markets and roads, higher ownership of transport means or access to affordable transport services have reduced marketing costs, thus encouraging market participation by farmers.

Greater market integration allows countries to diversify their trade patterns. In the past 50 years, the share of raw traditional agricultural exports in global agricultural exports has declined significantly, while the weight of high value-added agricultural trade has increased.

Recent increase in agricultural trade has been accompanied by a shift toward nontraditional products. High-value crops such as fruits and vegetables are usually associated with higher levels of market participation than staple crops.

Until the mid-1980s, raw traditional agricultural products represented around 40 percent of total trade in agricultural goods. In the following decade, the share dropped sharply by over 10 percentage points. Processed agricultural products (which include processed traditional export products) now represent over 60 per cent of total exports of agricultural goods.

Conclusion

Far from becoming unimportant, agriculture in developing countries is experiencing a remarkable structural transformation, characterized by an increase in productivity, a change in production composition, and a renovation in its mode of commercialization. This transformation is supported on technological, governmental, and commercial pillars. Agriculture is becoming agribusiness, in the good sense of market integration and entrepreneurship.

A question remains for future work. Agriculture has consistently alleviated poverty across developing countries. Will agribusiness continue to do so? And will the conditions that facilitate the transformation also be necessary to benefit the poor?

For the full excerpt of the Policy Note, diagrams and reference list, please see: bit.ly/DECRG_agri

UNCOVERING THE RELATIONSHIP BETWEEN WOMEN'S EMPLOYMENT AND TRADE ORIENTATION USING FIRM-LEVEL DATA

BY MOHAMMAD AMIN, ASIF ISLAM AND KHRYSTYNA KUSHNIR

While international trade tends to increase overall income levels, it may not benefit all groups of individuals equally. In fact, following trade liberalization, movements in relative prices and the costs incurred in re-allocating production from one activity to another can make some individuals worse off than before.

This leads to the question about women's position in the labor market: What is the impact of trade or export orientation on women's employment?

The study, "Uncovering the Relationship between Women's Employment and Trade Orientation Using Firm-level data", addresses the above question using micro or firm-level survey data for private manufacturing firms in developing countries. Unlike much of the existing literature, use of firm-level survey data allows for controls for country-specific differences that often complicate identification issues, and to explore possible heterogeneity in the relationship between export orientation and women's employment.

A positive relationship, not necessarily uniform

There is reason to believe that the relationship between export orientation and women's employment is not necessarily uniform. Three possibilities were identified.

First, some industries may be more amenable to women's employment than others. This could be due to reasons related to skill requirement, cultural factors or simply tradition. Thus, an increase in exporting activity is likely to have a much larger impact on women's employment if the exporting firm belongs to a women-friendly industry.

Second, firm-size and age of the firm capture complex and contrasting forces for women's employment and export orientation relationship. According to the monopsony model of women's employment, firms try to exercise their monopsony power in the labor market to depress women's wages, moving down the supply curve of women's labor and reducing number of women employees. Trade liberalization or greater export orientation increases

competition in the product and labor markets, weakening such monopsony power and thereby increasing women's employment. However, issues of monopsony power are much more relevant for large firms compared with the small firms since it is the former that has any kind of market power. The same can be said for old vs. young firms since it is the older firms that have more established products and hence market power. On this count alone, one can expect the impact of export orientation on women's employment to be much larger (more positive) for the relatively larger and older firms.

Thirdly, trade liberalization can contribute to women's employment by increasing the employer's cost of discriminating against women workers. It is plausible that the positive effect of trade liberalization on women's employment may be weaker (less positive) among large and older firms as such firms are more visible and hence less likely to discriminate against women workers to begin with than the less visible small and young firms. That is, export orientation and women's employment relationship may be stronger (more positive) among small and young firms compared with large and old firms. The contrasting predictions regarding firm-size and firm's age suggest that the issue is essentially an empirical one.

What do the data reveal?

Results using firm-level survey data for 81 developing countries reveal a strong positive relationship between women's employment and export orientation of the firm, a relationship that survives controls for a number of firm characteristics as well as all country specific differences.

This stated relationship is far from uniform – it varies sharply between industry sectors (garments and textiles and manufacturing were the two focused areas in the study), between young and old firms, and between small and large firms.

That is, the positive relationship between women's employment and export orientation of firms is much stronger (more positive) in the garments and textiles industries vs. the rest of manufacturing, among the relatively larger firms, and among the relatively younger firms.

Future research to deepen perspectives

A number of issues remain to be explored, suggesting ample scope for future research on the topic.

Labor intensive industries like textiles and garments, and service industries such as retail, telecommunications, health care, etc., are known to be more favorable towards women than men compared with manufacturing. At the same time, international trade in services is increasing rapidly, although conceptual problems remain in properly estimating this form of trade.

What is the impact of trade in services on women's employment, and is the impact stronger favoring women than in the manufacturing sector? Answering this question is important to assess the full impact of trade liberalization on women's job opportunities.

Second, only one dimension of women's labor market outcome – employment – was explored. Another dimension is the wage rate. What is the impact of greater export orientation on the wage rates for women? Does the impact vary depending on firm characteristics such as frim-size, industry to which it belongs and gender composition of firm's owners?

It is hoped that this paper inspires more research along these and other lines.

For the full excerpt of the study, diagrams and reference list, please see: bit.ly/womenjobstrade

USING CASE STUDIES TO EXPLORE AND EXPLAIN COMPLEX INTERVENTIONS

BY MICHAEL WOOLCOCK

One of the most cited of Martin Ravallion's many papers implores researchers to "look beyond averages" if they want to better understand development processes. One fruitful area in which this might happen is the assessment of complex interventions, a defining characteristic of which is that they generate wide variation in outcomes. Even when controlling for standard factors that might account for this variation – income, education levels, proximity to transport – outcomes in education, the performance of health care systems, or the extent to which villages participating in community-driven development programs manage conflict, can nonetheless vary considerably: some will be outstanding, some will muddle through, and some will fail spectacularly. In such situations, an important initial task for evaluators is determining the nature and extent of that variation: it will inform the overall assessment of whether the intervention is deemed to 'work' (or not).

An important secondary task when assessing complex interventions, however, is explaining and learning from this variation. What makes a complex system truly 'complex' is something some social scientists – extending a term developed by physicists and neuro-scientists – call its causal density, or the number of independent discretionary interactions connecting inputs and outcomes. By this definition, families are decidedly complex whereas smart phones are merely complicated. By extension, raising (lowering) interest rates by a quarter of a percentage point yields predictable decreases (increases) in inflation, whereas after 18 billion experiments in how to raise children (i.e., roughly the total number of homo sapiens that have ever lived) each new parent remains highly unsure about how to carry out this most primal of tasks: there is no certainty, only a variable probability, that following key principles (themselves often culturally and historically contingent) will yield the desired outcome.

Development interventions in fields such as governance and justice are complex in this sense, as are key aspects of public services such as education (classroom teaching) and health (curative care). While we should expect high variation in the effectiveness of such interventions, even when they're carefully designed and faithfully implemented, explaining how and why specific forms of variation occur is both necessary and difficult. It is

necessary because this variation can itself be a valuable source of intra-project learning; discerning where and for whom a particular intervention is working (or not) can be a basis on which mid-course corrections are made (e.g., with regard to resource allocation and personnel deployment). Moreover, a second defining feature of complex interventions is that it is virtually impossible to specify or anticipate exactly the precise problems and solutions that are likely to emerge during implementation; as such, having high quality monitoring systems in place can help to identify problems before they get too severe, and locate specific examples of where and how such problems have been solved.

Explaining variation is difficult, however, because it is likely to remain even after controlling for observable factors. Household survey instruments are crucial for mapping the nature and extent of variation, and for enabling observable factors to be incorporated into explanations of it. But a third defining feature of complex interventions is that they are highly susceptible to the influence of statistically 'unobservable' factors, such as those stemming from social networks, motivation, legitimacy, expectations and power. Lots of devils lurk in lots of details, and to tease these out, different methodological tools are needed. If the great strength of statistical methods is 'breadth', then the complementary strength of qualitative approaches is 'depth'. Conducting some "deep dives" in exceptional places helps researchers to observe unobservables, to get a more precise read on the specific micro mechanisms by which prevailing inputs manifest themselves as particular outcomes.

An example of this approach in action can be seen in a recent study a team of us undertook on the quality of service delivery in the Middle East and North Africa region. Analyses of the existing household data sets in MENA, however, revealed enormous variation in how well these policies were being implemented; absenteeism in health clinics in Yemen ranged from 8 to 83%, for example, while schools in Palestine, though generally struggling, nonetheless sometimes yielded performance scores on standardized international tests (TIMSS) that were 'average' by global standards – an extraordinary accomplishment in a veritable war zone. But what accounts for this variation? It can't be policy variation, since policies are effectively 'constant' in centralized states,

and the household data could only tell us so much (since it typically contained only rather crude information on local structural variables). Conducting case studies in some of these exceptional places – in Palestine (education) and Jordan (health) – helped unpack the causal mechanisms by which, in these contexts, extant policies were being transformed into superior outcomes; in other words, it helped us understand the 'causes of effects' (as a counterpart to orthodox evaluation techniques that focus on discerning the 'effects of causes'). Put differently, it helped discern how certain teams in certain communities were able to take the same policy 'ingredients' as everyone else but somehow bake a much better cake.

These findings may or may not be generalizable, but they unpack how complex interventions can work and showcase practical examples of how others working in the same contexts might seek improvement. They also help shape a broader policy dialogue that is simultaneously honest with regard to the overall effectiveness of a given delivery system (which is often parlous) yet not without hope: someone, somewhere, somehow has figured out how to do a better job than others. Their insights can be a basis on which improvements elsewhere are sought.

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