



**ANNUAL
MEETINGS**
2017 | WASHINGTON DC

IMF SEMINARS RECOMMENDED READING



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FOREWORD



Welcome to the 2017 Annual Meetings. Every year the Meetings bring together central bankers, ministers of finance and development, private sector executives, representatives from civil society organizations, and academics to discuss issues of global concern, including the world economic outlook, poverty eradication, economic development, and aid effectiveness. In 2017, the focus will be on how

finance and growth challenges, our climate, and even our workplace will affect our shared futures.

This year the Library at the International Monetary Fund, in partnership with several IMF departments, has once again compiled a Recommended Reading list of works relevant to issues that participants will discuss throughout the Meetings.

It is my hope that the Recommended Reading list serves to further stimulate discussion on issues tackled at the Annual Meetings Seminars: gender inequality, the future of jobs, inclusive growth, poverty reduction, Fintech, technological innovation, sovereign debt, and globalization.

Caro Cook

Chief, General Services Division, Corporate Services and Facilities
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INTRODUCTION

Recommended Reading provides a curated list of relevant works covering topics discussed during the Annual Meetings Seminars. These resources were carefully selected from the publications of the IMF and World Bank, their sister institutions, academics, and research bodies around the world with the aim to represent the diversity of thoughts. For the purpose of knowledge exchange, we have provided hypertext links to the sources and encourage you to share this document with others who are interested in development and international economics.

Recommended Reading was prepared by the staff of the Library at the International Monetary Fund, with contributions from IMF Departments that sponsored the Seminars and suggested research for this compilation. A special thank you goes to the African Department; Asia Pacific Department; Communications Department; Information Technology Department; Legal Department; Middle East and Central Asia Department; Monetary and Capital Markets Department; Research Department; Secretary's Department; Strategy, Policy, and Review Department; and Western Hemisphere Department.

The Library at the International Monetary Fund

Washington, DC

October 2017

TUESDAY, October 10, 2017

YOUTH DIALOGUE: A WORLD WITHOUT WORK?

Sponsored by the IMF's Communications Department

The world is recovering steadily from the global financial crisis. However, the global labor market continues to face both legacies from the crisis and uncertainties as technological innovations are reshaping the nature of work for everyone around the world. For today's youth, the future of work may be more uncertain than ever. The confluence of digital forces could lead to the creation of opportunities that never existed in the past. At the same time, it could also lead to increased automation and result in significant job losses. The panel will examine the state of youth employment today and the implications for tomorrow.



Arntz, Melanie, Terry Gregory, and Ulrich Zierahn. 2016.

[“The Risk of Automation for Jobs in OECD Countries: A Comparative Analysis.”](#) Social, Employment, and Migration Working Papers 189, Organisation for Economic Co-operation and Development, Paris.

In recent years, there has been a revival of concerns that automation and digitalization might, after all, result in a jobless future. The debate has been fueled by studies on the United States and Europe, arguing that a substantial share of jobs is at “risk of computerization.” These studies follow an occupation-based approach proposed by Frey and Osborne (2013)—that is, they assume that whole occupations, rather than single job-tasks, are automated by technology. As this paper argues, this might lead to an overestimation of job automatability, as occupations labelled as high-risk occupations often still contain a substantial share of tasks that are hard to automate. The paper serves two purposes. Firstly, the authors estimate the job automatability of jobs for 21 OECD countries based on a task-based approach. In contrast to other studies, they take into account the heterogeneity of workers’ tasks within occupations. They find that, on average across the 21 OECD countries, 9 percent of jobs are automatable. The threat from technological advances thus seems much less pronounced compared to the occupation-based approach. They further find heterogeneities across OECD countries. For instance, while the share of automatable jobs is 6 percent in Korea, the corresponding share is 12 percent in Austria. Differences among countries may reflect general differences in workplace organization, differences in previous investments into automation technologies, and differences in the education of workers across countries.

Braynen-Kimani, Nicole, and Maria Jovanović. 2017.

[“In Their Own Words: Millennials Reflect on the Key Challenges Facing Their Generation.”](#) *Finance & Development* 54 (2): 24–27.

Millennials from around the world reflect on the key challenges facing their generation. This informal survey covers several parts of the globe—from China to Egypt, France, Nigeria, and Peru. Five millennials give their take on what is important to them individually and collectively as a segment of the global population that is facing unique challenges in a shifting global environment.

Burke, Maureen. 2017.

[“An Uncertain Future: Along with Exciting New Possibilities, Millennials Face a Whole Different Set of Obstacles.”](#) *Finance & Development* 54 (2): 5.

Millennials are entering the workforce at a time of technological change and economic disruption. These forces are shaping the choices they make and the experiences they seek—even as this generation in turn shapes the global economy; the economic opportunities and challenges of millennials, who will try to earn a

living in a work world decidedly different from the one their parents inhabited.

Deming, David J. 2015.

[“The Growing Importance of Social Skills in the Labor Market.”](#) Working Paper 21473, National Bureau of Economic Research, Cambridge, MA.

The labor market increasingly rewards social skills. Between 1980 and 2012 jobs requiring high levels of social interaction grew by nearly 12 percentage points as a share of the US labor force. Math-intensive but less social jobs—including many STEM occupations—shrank by 3.3 percentage points over the same period. Employment and wage growth were particularly strong for jobs requiring high levels of both math and social skills. To understand these patterns, this study develops a model of team production where workers “trade tasks” to exploit their comparative advantage. In the model, social skills reduce coordination costs, allowing workers to specialize and work together more efficiently. The model generates predictions about sorting and the relative returns to skill across occupations, which is investigated using data from the NLSY79 and the NLSY97. Using a comparable set of skill measures and covariates across survey waves, the study finds that the labor market return to social skills was much greater in the 2000s than in the mid-1980s and 1990s.

Gold, Stephen. 2016.

[“The Future of Automation – and Your Job.”](#) *Industry Week* 265 (1): 8.

The article discusses the impact of the new kind of automation called artificial intelligence to employment saying that it will put different kinds of jobs at risks compared to mechanical automation. Topics discussed include the increase in anxiety related to the impact of technology and automation, the report published by McKinsey Global Institute in November 2015 regarding the impact of new technology to employment, and productivity gains from workforce automation

Hodgson, Geoffrey M. 2016.

[“The Future of Work in the Twenty-First Century.”](#) *Journal of Economic Issues* 50 (1): 197–216.

The institutional nature of work has changed dramatically over the past three hundred years, and there is no reason to assume that change will cease in the 21st century. This article criticizes the theoretical basis for some previous confident predictions, including deskilling (Karl Marx), and massive reductions in the extent of the working day (John Maynard Keynes). It argues that further increases in the complexity and knowledge-intensity of work under capitalism are likely, although not inevitable. It considers some implications of growing complexity for work and the employment contract. Raising the question of possible asymmetries between labor and capital, it addresses their role in generating future increases in inequality. On the other hand,

growing complexity may lead to radical changes in the employment contract and its evolution into a form of quasi-self-employment. But, in an increasingly knowledge-intensive system, those with inadequate training or skills may be left behind. Compensatory policy measures, such as a guaranteed basic income and wealth redistribution, remain on the agenda.

International Labour Organization. 2017.

[The Future of Work We Want: A Global Dialogue.](#) Geneva: International Labour Organization.

This report presents a short summary of the International Labour Organization's Global Dialogue on "The Future of Work We Want," which brought together leading economists, academics and representatives from governments and social partners (employers' and workers' organizations) to discuss the profound changes sweeping through the world of work.

Katz, Lawrence F., and Alan B. Krueger. 2016.

["The Rise and Nature of Alternative Work Arrangements in the United States, 1995–2015."](#) Working Paper 22667, National Bureau of Economic Research, Cambridge, MA.

To monitor trends in alternative work arrangements, the authors of this study conducted a version of the Contingent Worker Survey as part of the RAND American Life Panel in late 2015. The findings point to a significant rise in the incidence of alternative work arrangements in the US economy from 2005 to 2015. The percentage of workers engaged in alternative work arrangements—defined as temporary help agency workers, on-call workers, contract workers, and independent contractors or freelancers—rose from 10.7 percent in February 2005 to 15.8 percent in late 2015. The percentage of workers hired out through contract companies showed the largest rise, increasing from 1.4 percent in 2005 to 3.1 percent in 2015. Workers who provide services through online intermediaries, such as Uber or Task Rabbit, accounted for 0.5 percent of all workers in 2015. About twice as many workers selling goods or services directly to customers reported finding customers through offline intermediaries than through online intermediaries.

Lagarde, Christine. 2017.

["The Voice of Youth: Adapt, Adjust, and Never Stop Learning."](#) *Finance & Development* 54 (2): 12–13.

Messenger, Jon, Oscar Vargas Llave, Lutz Gschwind, Simon Boehmer, Greet Vermeylen, and Mathijn Wilkens. 2017.

[Working Anytime, Anywhere: The Effects on the World of Work.](#) Luxembourg: European Union; Geneva: International Labour Office.

New information and communications technologies have revolutionized work and life in the 21st century. The constant

connectivity enabled by these devices allows work to be performed at any time and from almost anywhere. This joint report by the ILO and Eurofound synthesizes the findings of national studies from 15 countries, plus the European Working Conditions Survey, to consider the effects of telework and ICT-mobile work (T/ICTM) on the world of work. The report shows that this work arrangement is growing in most countries. Positive effects of T/ICTM usually include a shortening of commuting time, greater working time autonomy, better overall work–life balance, and higher productivity. At the same time, disadvantages include its tendency to lengthen working hours, to create interference between work and personal life, and to result in work intensification, which can lead to high levels of stress with negative consequences for workers' health and well-being. The ambiguous and even contradictory effects of T/ICTM on working conditions represent a current, real-world example about the challenges of the future of work. A range of policy suggestions to improve T/ICTM are made on the basis of the findings.

O'Higgins, Niall. 2017.

[Rising to the Youth Employment Challenge: New Evidence on Key Policy Issues.](#) Geneva: International Labour Organization.

Young women and men today face an ever more difficult task in finding their place in the world of work. In low- and middle-income countries, informal employment has come to dominate young people's labor market experiences, while in high-income countries, work for youth increasingly means temporary and other non-standard forms of employment.

Organisation for Economic Co-operation and Development. 2017.

["Going Digital: The Future of Work for Women."](#) Policy Brief on the Future of Work, Organisation for Economic Co-operation and Development, Paris.

Organisation for Economic Co-operation and Development. 2017.

["How Technology and Globalisation Are Transforming the Labour Market."](#) In *OECD Employment Outlook 2017*, 81–124. Paris: Organisation for Economic Co-operation and Development.

This chapter documents the impact of two megatrends, technological progress and globalization, on OECD labor markets over the past two decades, with a focus on the process of job polarization and deindustrialization. As both of these phenomena are associated with severe disruption in workers' lives and rising inequality, they have given rise to growing concerns and uncovering their root causes is of fundamental importance for policy. The chapter begins by presenting key indicators of technology diffusion, participation in global value chains and

international trade, and up-to-date evidence on job polarization. It then analyses the relationship between polarization and deindustrialization, and employs econometric techniques to assess the impact of technology and globalization on these phenomena. Technology displays the strongest association with both polarization and deindustrialization. The role of globalization is less clear cut, but there is some indication that international trade has contributed to deindustrialization. Based on this evidence, the chapter outlines the key policy tools to help workers to successfully navigate the ongoing transformation of the labor market and reap the benefits of technological progress.

PricewaterhouseCoopers. 2017.

[Workforce of the Future: The Competing Forces Shaping 2030.](#) London: PricewaterhouseCoopers.

We are living through a fundamental transformation in the way we work. Automation and ‘thinking machines’ are replacing human tasks and jobs, and changing the skills that organizations are looking for in their people. These momentous changes raise huge organizational, talent and human resource challenges—at a time when business leaders are already wrestling with unprecedented risks, disruption and political and societal upheaval.

Sundararajan, Arun. 2017.

[“The Future of Work: The Digital Economy Will Sharply Erode the Traditional Employer-Employee Relationship.”](#) *Finance & Development* 54 (2), 6–11.

Millennials account for about 40 percent of independent workers who make a living as freelancers in the United States. New York University professor Arun Sundararajan describes a workplace where the traditional employer-employee relationship changes dramatically in the digital economy.

World Economic Forum. 2016.

[The Future of Jobs: Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution.](#) Geneva: World Economic Forum.

The fourth industrial revolution is interacting with other socio-economic and demographic factors to create a perfect storm of business model change in all industries, resulting in major disruptions to labor markets. New categories of jobs will emerge, partly or wholly displacing others. The skill sets required in both old and new occupations will change in most industries and transform how and where people work. It may also affect female and male workers differently and transform the dynamics of the industry gender gap. This report aims to unpack and provide specific information on the relative magnitude of these trends by industry and geography, and on the expected time horizon for their impact to be felt on job functions, employment levels and skills.

WEDNESDAY, October 11, 2017

SOVEREIGN DEBT IN DEVELOPING COUNTRIES: RISING VULNERABILITIES AND THE PATH TO RESILIENCE

Sponsored by the IMF's Strategy, Policy, and Review Department;
and Western Hemisphere Department

The recent rise in sovereign debt vulnerabilities in many developing countries merits attention, especially in the context of a new creditor landscape and rising shares of domestic, non-concessional and collateralized debts. Key policy questions include: How can sovereigns increase their resilience to exogenous shocks? Can state-contingent debt help? What role can official and private creditors play in preventing and resolving unsustainable debt situations?



Adam, Christopher, Ugo Panizza, Andrea Presbitero, and David Vines. 2015.

[“Financing for Development: The Policy and Research Agenda.”](#) *Vox, Centre for Economic Policy Research*, May 12.

World leaders are preparing for the third International Conference on Financing for Development in Addis. More money may help, but may also make things worse due to aid dependence, Dutch disease, and/or unsustainable debt. This column argues that the political discussion needs to be accompanied by more, and better data and research on how financing can support sustainable development.

Adedeji, Olumuyiwa, Calixte Ahokpossi, Claudio Battiati, and Mai Farid. 2016.

[“A Probabilistic Approach to Fiscal Space and Prudent Debt Level: Application to Low-Income Developing Countries.”](#) Working Paper 16/163, International Monetary Fund, Washington, DC.

What constitutes fiscal space or a prudent level of debt to conduct countercyclical policy while ensuring debt sustainability? This paper addresses the question by exploring the relationship between debt dynamics, and the probabilistic distribution of the primary balance and the effective interest rate. This proposed approach is useful in situations where the lack of relevant data makes it difficult to estimate detailed fiscal reaction functions. Applying this approach to low-income developing countries, and based on various debt ceiling assumptions, the authors find that about 60 percent of these countries presently have fiscal policy space to address adverse shocks, subject to the availability of domestic and external financing. Countries with strong institutional capacity tend to have more fiscal space, and countries with weak institutional capacity, mostly countries in conflict and fragile states, tend to lack fiscal space.

Asonuma, Tamon, Xin Li, Michael G. Papaioannou, Saji Thomas, and Eriko Togo. 2017.

[“Sovereign Debt Restructurings in Grenada: Causes, Processes, Outcomes, and Lessons Learned.”](#) Working Paper 17/171, International Monetary Fund, Washington, DC.

This paper documents the two debt restructurings that Grenada undertook in 2004–06 and 2013–15. Both restructurings emerged as a consequence of weak fiscal and debt situations, which became unsustainable soon after external shocks hit the island economy. The two restructurings provided liquidity relief, with the second one involving a principal haircut. However, the first restructuring was not able to secure long-term debt sustainability. Grenada’s restructuring experience shows the importance of (1) establishing appropriate debt restructuring

objectives; (2) committing to policy reforms and maintaining ownership of the restructuring goals; and (3) engaging closely and having clear communications with creditors.

Baum, Anja, Andrew Hodge, Aiko Mineshima, Marialuz Moreno Badia, and Rene Tapsoba. 2017.

[“Can They Do It All? Fiscal Space in Low-Income Countries.”](#) Working Paper 17/110, International Monetary Fund, Washington, DC.

According to United Nations estimates, low-income countries will have to increase their annual public spending by up to 30 percent of GDP to achieve the Sustainable Development Goals (SDGs), raising the question of whether they can do it all. This paper develops a new metric of fiscal space in low-income countries that accounts for macroeconomic uncertainty, allowing us to assess whether those spending needs can be accommodated. Illustrative simulations based on this methodology imply that, even under benign conditions, the fiscal space available in low-income countries is likely insufficient to undertake the spending needed to achieve the SDGs. Improving public investment efficiency and domestic revenue mobilization can somewhat narrow the gap but it will require major efforts relative to recent trends.

Berensmann, Kathrin, Florence Dafe, and Ulrich Volz. 2015.

[“Developing Local Currency Bond Markets for Long-Term Development Financing in Sub-Saharan Africa.”](#) *Oxford Review of Economic Policy* 31 (3–4): 350–378.

This article discusses the role that local currency bond markets (LCBM) can play in the long-term financing of sustainable development of sub-Saharan African (SSA) economies, and presents an empirical analysis of the factors which may hinder or promote the development of such markets in SSA. Using a new dataset for 27 SSA countries, our findings support earlier research on SSA and other regions, showing that LCBM development is related to country size, larger banking systems, greater trade openness, and better regulatory frameworks and rule of law. Foreign investor participation broadens the investor base and can give a boost to LCBM development, yet it may also increase volatility of international capital flows. Hence, with a view to the experience of emerging economies in other regions, capital market liberalization should be pursued only very cautiously and in step with solid financial and institutional development.

Blanchard, Olivier, Paolo Mauro, and Julien Acalin. 2016.

[“The Case for Growth-Indexed Bonds in Advanced Economies Today.”](#) Policy Brief 16–2, Peterson Institute for International Economics, Washington, DC.

One of the legacies of the global financial crisis is a high ratio of public debt to GDP. While current levels may be sustainable, another series of bad shocks could easily tip the balance and

lead to unsustainable debt ratios and to default. The quantitative exercises presented in this Policy Brief show that growth-indexed bonds can play an important role in that context. By decreasing payments when growth is low, they can substantially reduce the "tail risks" associated with explosive debt paths starting from today's high ratios. The introduction of growth-indexed bonds will benefit highly indebted advanced economies and, in the euro area, might provide a partial market-based solution to attain valuable insurance benefits well ahead of a formal fiscal union.

Cheng, Gong, Javier Diaz-Cassou, and Aitor Erce. 2016.

["From Debt Collection to Relief Provision: 60 Years of Official Debt Restructurings through the Paris Club."](#) Working Paper 20, European Stability Mechanism, Luxembourg.

Despite the frequency of official debt restructurings, little systematic evidence has been produced on their characteristics and implications. Using a dataset covering more than 400 Paris Club agreements, this paper aims to fill that gap. It provides a comprehensive description of the evolving characteristics of these operations and studies the economic dynamics surrounding them. The progressive introduction of new terms of treatment gradually turned the Paris Club from a mere debt collector into a provider of sequential debt relief. The study finds that more generous restructuring conditions involving nominal relief are associated with higher economic growth. In contrast, agreements including only net present value relief have no positive impact on growth. However, the countries that get these restructuring conditions turn out to be more likely to pursue a prudent fiscal policy after the event than those receiving a nominal haircut. In other words, when deciding upon the type of relief to be granted through debt restructuring, the official sector faces a trade-off between the objectives of stimulating growth and fostering fiscal sustainability.

Costa, Alejo, Marcos Chamon, and Luca Antonio Ricci. 2008.

["Is There a Novelty Premium on New Financial Instruments? The Argentine Experience with GDP-Indexed Warrants."](#) Working Paper 08/109, International Monetary Fund, Washington, DC.

This paper examines the Argentine experience with GDP-indexed warrants to gauge the existence of a novelty premium on new financial instruments. It develops a Monte Carlo pricing exercise to calculate the expected net present value of payments, on the basis of various forecast assumptions. The results show that the residual premium paid by these warrants over standard bonds declined significantly by about 600 basis points between December 2005 and July 2007. This suggests that financial innovation may be associated with premia, which decay reasonably fast.

Culpeper, Roy, and Nihal Kappagoda. 2016.

["The New Face of Developing Country Debt."](#) *Third World Quarterly* 37 (6): 951–974.

Developing country debt has been a major preoccupation for development policy makers and practitioners since the debt crisis of 1982. It is a major obstacle to economic and social progress in developing countries. After the resolution of the Asian financial crisis of the late 1990s and the debt relief initiatives for low-income countries of 1997–2006 concerns about developing country debt seem to have receded. However, there are a growing number of problems that warrant concern, including the accumulation of domestic debt, short-term debt and private non-guaranteed debt, and increasing recourse by low-income countries to international capital markets. At the same time developing countries have strengthened their capacity to oversee and analyze their debt portfolios. Nonetheless, significant weaknesses remain in debt management capacity at the national level. Moreover, the activities of 'vulture funds' and the lack of a sovereign debt restructuring mechanism reveal major shortcomings in the international institutional architecture that need to be addressed urgently.

Forni, Lorenzo, Geremia Palomba, Joana Pereira, and Christine Richmond. 2016.

["Sovereign Debt Restructuring and Growth."](#) Working Paper 16/147, International Monetary Fund, Washington, DC.

This paper studies the effect of sovereign debt restructurings with external private creditors on growth during the period 1970–2010. The authors find that there are bad and good (or not so bad) debt restructurings for growth. While growth generally declines in the aftermath of a sovereign debt restructuring, agreements that allow countries to exit a default spell (final restructurings) are associated with improving growth. The impact can be significant. In general, three years after restructuring, growth is about 5 percent lower compared to countries that did not face restructuring over the same period. The exception is for final restructurings, which result in positive growth in the years immediately after the restructuring. Final restructurings tend to be better for growth because they reduce countries' debt, with the strongest effect for countries that exit restructurings with relatively low debt levels.

Guzman, Martin, Jose Antonio Ocampo, and Joseph E. Stiglitz. 2016.

[*Too Little, Too Late: The Quest to Resolve Sovereign Debt Crises.*](#) New York, NY: Columbia University Press.

The current approach to resolving sovereign debt crises does not work: sovereign debt restructurings come too late and address too little. Though unresolved debt crises impose enormous costs on societies, many recent restructurings have not been deep

enough to provide the conditions for economic recovery (as illustrated by the Greek debt restructuring of 2012). And if the debtor decides not to accept the terms demanded by the creditors, finalizing a restructuring can be slowed by legal challenges (as illustrated by the recent case of Argentina, deemed as "the trial of the century"). A fresh start for distressed debtors is a basic principle of a well-functioning market economy, yet there is no international bankruptcy framework for sovereign debts. While this problem is not new, the United Nations and the global community are now willing to do something about it. Providing guidance for those who intend to take up reform, this book assesses the relative merits of various debt-restructuring proposals, especially in relation to the main deficiencies of the current non-system. With contributions by leading academics and practitioners, *Too Little, Too Late* reflects the overwhelming consensus among specialists on the need to find workable solutions.

International Monetary Fund. 2017.

"State—Contingent Debt Instruments for Sovereigns." Policy Paper, International Monetary Fund, Washington, DC.

The case for sovereign state-contingent debt instruments (SCDIs) as a countercyclical and risk-sharing tool has been around for some time and remains appealing; but take-up has been limited. Earlier staff work had advocated the use of growth-indexed bonds in emerging markets and contingent financial instruments in low-income countries. In light of recent renewed interest among academics, policymakers, and market participants—staff has analyzed the conceptual and practical issues SCDIs raise with a view to accelerate the development of self-sustaining markets in these instruments. The analysis has benefited from broad consultations with both private market participants and policymakers.

By linking debt service to a measure of the sovereign's capacity to pay, SCDIs can increase fiscal space, and thus allow greater policy flexibility in bad times. They can also broaden the sovereign's investor base, open opportunities for risk diversification for investors, and enhance the resilience of the international financial system. Should SCDI issuance rise to account for a large share of public debt, it could also significantly reduce the incidence and cost of sovereign debt crises. Some potential complications require mitigation: a high novelty and liquidity premium demanded by investors in the early stage of market development; adverse selection and moral hazard risks; undesirable pricing effects on conventional debt; pro-cyclical investor demand; migration of excessive risk to the private sector; and adverse political economy incentives.

International Monetary Fund. 2017.

"Macroeconomic Developments and Prospects in Low-Income Developing Countries—2016." Policy Paper, International Monetary Fund, Washington, DC.

The overarching theme in this paper's assessment of the macroeconomic conjuncture among low-income developing countries (LIDCs) is that of incomplete adjustment to the new world of "lower for long" commodity prices, with many commodity exporters still far from a sustainable macroeconomic trajectory (Chapter 1). The analysis of risks and vulnerabilities focuses on financial sector stresses and medium-term fiscal risks, pointing to the actions, including capacity building, needed to manage and contain these challenges over time (Chapter 2). With 2016 the first year of the march towards the 2030 development goals, the paper also looks at how infrastructure investment can be accelerated in LIDCs, given that weaknesses in public infrastructure (such as energy, transportation systems) in LIDCs are widely seen as a key constraint on medium-term growth potential (Chapter 3).

International Monetary Fund. 2016

"Small States' Resilience to Natural Disasters and Climate Change—Role for the IMF." Policy Paper, International Monetary Fund, Washington, DC.

Small developing states are disproportionately vulnerable to natural disasters. On average, the annual cost of disasters for small states is nearly 2 percent of GDP—more than four times that for larger countries. This reflects a higher frequency of disasters, adjusted for land area, as well as greater vulnerability to severe disasters. About 9 percent of disasters in small states involve damage of more than 30 percent of GDP, compared to less than 1 percent for larger states. Greater exposure to disasters has important macroeconomic effects on small states, resulting in lower investment, lower GDP per capita, higher poverty, and a more volatile revenue base.

International Monetary Fund and World Bank Group. 2015.

"Public Debt Vulnerabilities in Low-Income Countries—The Evolving Landscape." Policy Paper, International Monetary Fund, Washington, DC.

This is the first joint IMF/World Bank report on public debt vulnerabilities in low-income countries (LICs). It examines debt-related developments and their underlying causes since the onset of the global financial crisis. The findings will inform the upcoming review of the IMF/WB debt sustainability framework for LICs. Over this period, improved macroeconomic performance in LICs, combined with HIPC/MDRI debt relief and high demand for commodities, contributed to improved LIC creditworthiness. At the same time, new borrowing opportunities emerged as a result of the accommodative liquidity conditions in international capital markets, the

deepening of domestic financial markets for some LICs, and the growing lending activities of non-Paris Club countries.

International Monetary Fund, and World Bank. 2013.

[**“Helping Developing Countries Address Public Debt Management Challenges—an IMF-World Bank Capacity Building Partnership.” Policy Paper, International Monetary Fund, Washington, DC.**](#)

In 2009, the Boards of the IMF and World Bank jointly endorsed a capacity building program to help developing countries strengthen their public debt management frameworks. A key aspect of the program was to help developing countries implement the framework developed by staffs to formulate an effective medium-term debt management strategy. The Boards also supported the continued use of the complementary framework—the Debt Management Performance Assessment—developed in 2007, to assess the effectiveness of the broader institutional arrangements for public debt management. This paper provides an update on the implementation of the program since its endorsement in 2009.

Klomp, Jeroen. 2017.

[**“Flooded with Debt.” *Journal of International Money & Finance* 73 \(A\): 93–103.**](#)

This study explores if natural disasters are able to trigger a sovereign debt default. Natural disasters make the debt of a country less sustainable as they worsen the public finances of a country. The main findings from the study’s empirical analysis clearly indicate that large-scale natural disasters increase significantly the onset probability of a sovereign debt default by about three percentage-points. It turns out that particularly major earthquakes and storms raise the likelihood of a default as they create the most widespread damage reported worldwide. This will limit the debt servicing opportunities of a country in the future.

Lagarde, Christine, and International Monetary Fund. 2017.

[**“The Managing Director’s Global Policy Agenda: A More Inclusive and Resilient Global Economy April 2017.” Policy Paper, International Monetary Fund, Washington, DC.**](#)

The global economy is gaining momentum, but further progress hinges on policies to support the recovery, lift productivity growth, and enhance resilience. Against the background of rapid technological progress, a cooperative multilateral framework for trade and financial integration has served countries well, producing large economic benefits. However, some groups have not been able to share in these benefits, a trend exposed by a too-slow post-crisis recovery, which limited the room for all

segments of society to experience income gains. Working within the multilateral framework, countries should strive for strong and more balanced growth and to provide economic opportunities for all.

Mauro, Paolo, Torbjorn I. Becker, Jonathan David Ostry, Romain Ranciere, and Olivier D. Jeanne. 2007.

[**“Country Insurance: The Role of Domestic Policies.” Occasional Paper 254, International Monetary Fund, Washington, DC.**](#)

This paper analyzes a number of mechanisms through which countries can self-insure, with particular focus on national balance sheets—including the roles of countries’ external liability structures and self-insurance through reserves accumulation. As foreshadowed in the IMF Managing Director’s medium-term strategy, separate staff papers are expected to address collective insurance arrangements—regional reserve pooling arrangements, and global arrangements using a possible new lending instrument to provide high-access contingent financing for countries that have strong macroeconomic policies, sustainable debt, and transparent reporting, but nevertheless remain vulnerable to shocks.

Ncube, Mthuli, and Zuzana Brixiová. 2015.

[**“Public Debt Sustainability in Africa: Building Resilience and Challenges Ahead.” *Development Policy Review* 33 \(5\): 555–580.**](#)

The increased access of African countries to international capital markets has put public debt sustainability at the forefront of the continent’s policy agenda. Utilizing the “stabilizing primary-balance” approach, this article finds that the actual primary balances exceeded those required to keep public debt at the 2007 level in about half the countries studied, and in several cases, those needed to reduce public debt-to-GDP to sustainable thresholds. The interest rate-growth differential (IRGD) drove sustainability, underscoring the importance of growth and borrowing for growth-enhancing outlays. As the IRGDs are likely to narrow over the longer term, fiscal policies will need to play a greater role.

Nolan, Sean. 2016.

[**“Re-Indebtedness of LICs.” In *Annual Report 2015*, 18–23. Paris: Paris Club.**](#)

Zhang, Tao, and Vladimir Klyuev. 2017.

[**“Roads to Stronger Growth in Low-Income Countries.” *IMF Blog*, January 12.**](#)

HOW MUCH INEQUALITY CAN WE LIVE WITH?

Sponsored by the IMF's Communications Department

The eight richest men on the planet own as much wealth as the poorest half of the world. Oxfam's groundbreaking inequality research has been cited by world leaders, from Xi Jinping and Barack Obama to Christine Lagarde. But while many acknowledge the crisis, there is much less consensus on how to respond. In a conversation with the audience, Winnie Byanyima, head of the worldwide development organization Oxfam International, will challenge the conventional wisdom surrounding inequality and the global economy. Ms. Byanyima will also share a new and innovative framework, the Commitment to Reducing Inequality Index, intended to help guide national economic policies towards tackling inequality head on.



Ball, Laurence, Davide Furceri, Daniel Leigh, and Prakash Loungani. 2013.

[“The Distributional Effects of Fiscal Consolidation.” Working Paper 13/151, International Monetary Fund, Washington, DC.](#)

This paper examines the distributional effects of fiscal consolidation. Using episodes of fiscal consolidation for a sample of 17 OECD countries over the period 1978–2009, the authors find that fiscal consolidation has typically had significant distributional effects by raising inequality, decreasing wage income shares and increasing long-term unemployment. The evidence also suggests that spending-based adjustments have had, on average, larger distributional effects than tax-based adjustments.

Berg, Andrew G., and Jonathan D. Ostry. 2011.

[“Inequality and Unsustainable Growth: Two Sides of the Same Coin?” Staff Discussion Note 11/08, International Monetary Fund, Washington, DC.](#)

This note raises the IMF’s profile on a number of issues related to inequality, unemployment, governance, etc. It builds on earlier empirical work that examined correlations between growth downbreaks/duration of growth spells and a range of macro/policy/institutional factors. This paper is designed to be more accessible, more policy oriented, and focused squarely on the issue of inequality and the sustainability of growth. It will reference the literature that has gained prominence in the wake of the global crisis, and the possible links between the crisis and rising inequality in countries at the epicenter of the crisis. The analytical findings will also be connected to real world policy narratives in certain countries, to provide texture to the results and enhance policy relevance. The paper will argue that, based on the empirical findings, more equality in the income distribution is associated with longer-lived growth spells. Broad redistributive policies are not necessarily pro-growth, however, as these can have strong disincentive effects. The paper’s policy discussion is appropriately cautious, therefore, offering only tentative ideas, for example, active labor market policies and more attention to human capital investments designed to avoid conflicts between efficiency and equity perspectives.

Clements, Benedict, Ruud de Mooij, Sanjeev Gupta, and Michael Keen. 2015.

[Inequality and Fiscal Policy.](#) Washington, DC: International Monetary Fund.

The sizeable increase in income inequality experienced in advanced economies and many parts of the world since the 1990s and the severe consequences of the global economic and financial crisis have brought distributional issues to the top of the policy agenda. The challenge for many governments is to address concerns over rising inequality while simultaneously

promoting economic efficiency and more robust economic growth. The book delves into this discussion by analyzing fiscal policy and its link with inequality. Fiscal policy is the government’s most powerful tool for addressing inequality. It affects households’ consumption directly (through taxes and transfers) and indirectly (via incentives for work and production and the provision of public goods and individual services such as education and health). An important message of the book is that growth and equity are not necessarily at odds; with the appropriate mix of policy instruments and careful policy design, countries can in many cases achieve better distributional outcomes and improve economic efficiency. Country studies (on the Netherlands, China, India, Republic of Congo, and Brazil) demonstrate the diversity of challenges across countries and their differing capacity to use fiscal policy for redistribution. The analysis presented in the book builds on and extends work done at the IMF and includes contributions from leading academics.

Dabla-Norris, Era, Kalpana Kochhar, Nujin Suphaphiphat, Frantisek Ricka, and Evridiki Tsounta. 2015.

[“Causes and Consequences of Income Inequality: A Global Perspective.” Staff Discussion Note 15/13, International Monetary Fund, Washington, DC.](#)

This paper analyzes the extent of income inequality from a global perspective, its drivers, and what to do about it. The drivers of inequality vary widely amongst countries, with some common drivers being the skill premium associated with technical change and globalization, weakening protection for labor, and lack of financial inclusion in developing countries. The authors find that increasing the income share of the poor and the middle class actually increases growth while a rising income share of the top 20 percent results in lower growth—that is, when the rich get richer, benefits do not trickle down. This suggests that policies need to be country specific but should focus on raising the income share of the poor, and ensuring there is no hollowing out of the middle class. To tackle inequality, financial inclusion is imperative in emerging and developing countries while in advanced economies, policies should focus on raising human capital and skills and making tax systems more progressive.

Fabrizio, Stefania, Davide Furceri, Rodrigo Garcia-Verdu, Bin Grace Li, Sandra V. Lizarazo, Marina Mendes Tavares, Futoshi Narita, and Adrian Peralta-Alva. 2017.

[“Macro-Structural Policies and Income Inequality in Low-Income Developing Countries.” Staff Discussion Note 17/01, International Monetary Fund, Washington, DC.](#)

Despite sustained economic growth and rapid poverty reductions, income inequality remains stubbornly high in many low-income developing countries. This pattern is a concern as high levels of inequality can impair the sustainability of growth and macroeconomic stability, thereby also limiting countries’

ability to reach the Sustainable Development Goals. This underscores the importance of understanding how policies aimed at boosting economic growth affect income inequality. Using empirical and modeling techniques, the note confirms that macro-structural policies aimed at raising growth payoffs in low-income developing countries can have important distributional consequences, with the impact dependent on both the design of reforms and on country-specific economic characteristics. While there is no one-size-fits-all recipe, the note explores how governments can address adverse distributional consequences of reforms by designing reform packages to make pro-growth policies also more inclusive.

Furceri, Davide, Prakash Loungani, and Aleksandra Zdzienicka. 2016.

**[“The Effects of Monetary Policy Shocks on Inequality.”](#)
Working Paper 16/245, International Monetary Fund, Washington, DC.**

This paper provides new evidence of the effect of monetary policy shocks on income inequality. Using a measure of unanticipated changes in policy rates for a panel of 32 advanced and emerging market countries over the period 1990–2013, the paper finds that contractionary (expansionary) monetary actions increase (reduce) income inequality. The effect, however, varies over time, depending on the type of the shocks (tightening versus expansionary monetary policy) and the state of the business cycle, and across countries depending on the share of labor income and redistribution policies. In particular, evidence indicates that the effect is larger for positive monetary policy shocks, especially during expansions. Looking across countries, the authors find that the effect is larger in countries with higher labor share of income and smaller redistribution policies. Finally, while an unexpected increase in policy rates increases inequality, changes in policy rates driven by an increase in growth are associated with lower inequality.

Gonzales, Christian, Sonali Jain-Chandra, Kalpana Kochhar, Monique Newiak, and Tlek Zeinullayev. 2015.

**[“Catalyst for Change: Empowering Women and Tackling Income Inequality.”](#)
Staff Discussion Note 15/20, International Monetary Fund, Washington, DC.**

This study shows empirically that gender inequality and income inequality are strongly interlinked, even after controlling for standard drivers of income inequality. The study analyzes gender inequality by using and extending the United Nation’s Gender Inequality Index (GII) to cover two decades for almost 140 countries. The main finding is that an increase in the GII from perfect gender equality to perfect inequality is associated with an almost 10 points higher net Gini coefficient. For advanced countries, with higher gender equity in opportunities, income inequality arises mainly through gender gaps in economic participation. For emerging market and developing

countries, inequality of opportunity, in particular in education and health, appear to pose larger obstacles to income equality.

Grigoli, Francesco, Evelio Paredes, and Gabriel Di Bella. 2016.

**[“Inequality and Growth: A Heterogeneous Approach.”](#)
Working Paper 16/244, International Monetary Fund, Washington, DC.**

The combination of stagnant growth and high levels of income inequality renewed the debate about whether a more even distribution of income can spur economic activity. This paper tests for cross-country convergence in income inequality and estimates its impact on economic growth with a heterogeneous panel structural vector autoregression model, which addresses some empirical challenges plaguing the literature. The authors find that income inequality is converging across countries, and that its impact on economic growth is heterogeneous. In particular, while the median response of real per capita GDP growth to shocks in income inequality is negative and significant, the dispersion around the estimates is large, with at least one-fourth of the countries in the sample presenting a positive effect. The results suggest that the negative effect is mainly driven by the Middle East and Central Asia and the Western Hemisphere across regions, and emerging markets across income levels. Finally, the authors find evidence that improved institutional frameworks can reduce the negative effect of income inequality on growth.

Hakura, Dalia S., Mumtaz Hussain, Monique Newiak, Vimal Thakoor, and Fan Yang. 2016.

**[“Inequality, Gender Gaps and Economic Growth: Comparative Evidence for Sub-Saharan Africa.”](#)
Working Paper 16/111, International Monetary Fund, Washington, DC.**

A growing body of empirical evidence suggests that inequality—income or gender related—can impede economic growth. Using dynamic panel regressions and new time series data, this paper finds that both income and gender inequalities, including from legal gender-based restrictions, are jointly negatively associated with per capita GDP growth. Examining the relationship for countries at different stages of development, the authors find that this effect prevails mainly in lower income countries. In particular, per capita income growth in sub-Saharan Africa could be higher by as much as 0.9 percentage points on average if inequality was reduced to the levels observed in the fast-growing emerging Asian countries. High levels of income inequality in sub-Saharan Africa appear partly driven by structural features. However, the paper’s findings show that policies that influence the opportunities of low-income households and women to participate in economic activities also matter and, therefore, if well-designed and targeted, could play a role in alleviating inequalities.

Hardoon, Deborah. 2017

[*An Economy for the 99%: It's Time to Build a Human Economy that Benefits Everyone, Not Just the Privileged Few.* Oxford: OXFAM International.](#)

New estimates show that just eight men own the same wealth as the poorest half of the world. As growth benefits the richest, the rest of society—especially the poorest—suffers. The very design of our economies and the principles of our economics have taken us to this extreme, unsustainable and unjust point. Our economy must stop excessively rewarding those at the top and start working for all people. Accountable and visionary governments, businesses that work in the interests of workers and producers, a valued environment, women's rights and a strong system of fair taxation, are central to this more human economy.

Jaumotte, Florence, Subir Lall, and Chris Papageorgiou. 2016.

[*"Rising Income Inequality: Technology, or Trade and Financial Globalization?" IMF Economic Review 61 \(2\): 271–309.*](#)

The paper examines the relationship between the rapid pace of trade and financial globalization and the rise in income inequality observed in most countries over the past two decades. Using a newly compiled panel of 51 countries over a 23-year period from 1981 to 2003, the paper reports estimates that support a greater impact of technological progress than globalization on inequality. The limited overall impact of globalization reflects two offsetting tendencies: whereas trade globalization is associated with a reduction in inequality, financial globalization—and foreign direct investment in particular—is associated with an increase in inequality.

Lawson, Max, and Matthew Martin. 2017.

[*The Commitment to Reducing Inequality Index.* Oxford: OXFAM; Bethesda, MD: Development Finance International.](#)

In 2015, the leaders of 193 governments promised to reduce inequality as part of the Sustainable Development Goals (SDGs). Without reducing inequality, meeting the SDGs to eliminate poverty will be impossible. Now Development Finance International (DFI) and Oxfam have produced the first index to measure the commitment of governments to reducing the gap between the rich and the poor.

The Commitment to Reducing Inequality Index uses a new database of indicators covering 152 countries, which measures government action on social spending, tax and labor rights—three areas found to be critical to reducing inequality.

This first version of the CRI Index is work in progress, and DFI and Oxfam welcome comments and additions. The authors find that there is an urgent need for coordinated global investment to significantly improve the data on inequality and policies to reduce it, and much greater concerted action by governments across the world to reduce the gap between rich and poor.

Lustig, Nora, Luis F. López-Calva, and Eduardo Ortiz-Juarez. 2013.

[*"Deconstructing the Decline in Inequality in Latin America." Policy Research Working Paper 6552, World Bank, Washington, DC.*](#)

Inequality in Latin America unambiguously declined in the 2000s. The Gini coefficient fell in 16 of the 17 countries where there are comparable data, and the change was statistically significant for all of them. Existing studies point to two main explanations for the decline in inequality: a reduction in hourly labor income inequality, and more robust and progressive government transfers. Available evidence suggests that it is the skill premium—or, more precisely, the returns to primary, secondary, and tertiary education vs. no schooling or incomplete primary schooling—that drives the decline in hourly labor income inequality. The causes behind the decline in returns to schooling, however, have not been unambiguously established. Some studies find that returns fell because of an increase in the supply of workers with more educational attainment; others, because of a shift in demand away from skilled labor.

Ostry, Jonathan D. 2014.

[*"We Do Not Have to Live with the Scourge of Inequality." Financial Times, March 3.*](#)

Ostry, Jonathan D., Davide Furceri, and Prakash Loungani. 2016.

[*"Neoliberalism: Oversold?" Finance & Development 53 \(2\): 38–41.*](#)

Instead of delivering growth, some neoliberal policies have increased inequality, in turn jeopardizing durable expansion.

THURSDAY, October 12, 2017

TOWARDS 2030: TRENDS, OPPORTUNITIES, CHALLENGES, AND POLICIES FOR INCLUSIVE GROWTH

Sponsored by IMF's Strategy, Policy, and Review Department

The 2030 development agenda aims to achieve sustainable and inclusive growth. The road ahead is paved with challenges driven by long-term trends—such as demographics and automation—that are already shaping the future of several developing countries. Against this background, the conference will focus on the following questions: With developing economies increasingly interlinked to the global economy, how will these trends shape the economic landscape over the next two decades? What job opportunities and challenges to inclusive growth and gender equality can these long-term trends create for developing countries? What role can economic diversification and structural transformation play in this context? How can domestic policies—especially education, innovation and infrastructure policies—facilitate these opportunities and mitigate the challenges and barriers to inclusive growth?



Acemoglu, Daron, and Pascual Restrepo. 2016.

[“The Race between Machine and Man: Implications of Technology for Growth, Factor Shares and Employment.”](#)
Working Paper 22252, National Bureau of Economic Research, Cambridge, MA.

This paper examines the concerns that new technologies will render labor redundant in a framework in which tasks previously performed by labor can be automated and new versions of existing tasks, in which labor has a comparative advantage, can be created. In a static version where capital is fixed and technology is exogenous, automation reduces employment and the labor share, and may even reduce wages, while the creation of new tasks has the opposite effects. The author’s full model endogenizes capital accumulation and the direction of research towards automation and the creation of new tasks. If the long-term rental rate of capital relative to the wage is sufficiently low, the long-term equilibrium involves automation of all tasks. Otherwise, there exists a stable balanced growth path in which the two types of innovations go hand in hand. Stability is a consequence of the fact that automation reduces the cost of producing using labor, and thus discourages further automation and encourages the creation of new tasks. In an extension with heterogeneous skills, the authors show that inequality increases during transitions driven both by faster automation and introduction of new tasks, and characterize the conditions under which inequality is increasing or stable in the long run.

Autor, David H. 2015.

[“Why Are There Still So Many Jobs? The History and Future of Workplace Automation.”](#) *Journal of Economic Perspectives* 29 (3): 3–30.

In this essay, the author begins by identifying the reasons that automation has not wiped out a majority of jobs over the decades and centuries. Automation does indeed substitute for labor—as it is typically intended to do. However, automation also complements labor, raises output in ways that leads to higher demand for labor, and interacts with adjustments in labor supply. Journalists and even expert commentators tend to overstate the extent of machine substitution for human labor and ignore the strong complementarities between automation and labor that increase productivity, raise earnings, and augment demand for labor. Changes in technology do alter the types of jobs available and what those jobs pay. In the past few decades, one noticeable change has been a “polarization” of the labor market, in which wage gains went disproportionately to those at the top and at the bottom of the income and skill distribution, not to those in the middle; however, the author also argues, this polarization is unlikely to continue very far into future. The final section of this paper reflects on how recent and future advances in artificial intelligence and robotics should shape our thinking about the likely trajectory of occupational change and employment growth. The author argues that the interplay between machine and human comparative advantage

allows computers to substitute for workers in performing routine, codifiable tasks while amplifying the comparative advantage of workers in supplying problem-solving skills, adaptability, and creativity.

Canning, David, Sangeeta Raja, and Abdo S. Yazbeck. 2015.

[Africa's Demographic Transition: Dividend or Disaster?](#)
Washington, DC: World Bank.

This book lays out a range of policy actions that are needed at the various phases of the demographic transition and uses global and regional experiences to provide evidence on what has worked and what has not. Countries have a menu of options available to speed up the transition, improve investment in the resulting youth cohort, expand labor markets, and encourage savings. This book not only looks at lessons from East Asia, Latin America, and the Middle East, but also at unique demographic characteristics in sub-Saharan Africa. Harnessing the demographic dividend means, first and foremost, empowering women and girls by improving their health, enhancing their human capital through increased investment in education and skills, and providing them with greater market, social, and decision-making power. The full potential of the demographic dividend can be realized in sub-Saharan Africa with proactive policies that can help to make it happen.

Chandy, Laurence, ed. 2016.

[The Future of Work in the Developing World: Brookings Blum Roundtable 2016 Post-Conference Report.](#)
Washington, DC: Brookings.

Clements, Benedict, Kamil Dybczak, Vitor Gaspar, Sanjeev Gupta, and Mauricio Soto. 2015.

[“The Fiscal Consequences of Shrinking Populations.”](#) *Staff Discussion Note 15/21, International Monetary Fund, Washington, DC.*

This Staff Discussion Note looks at the stark fiscal challenges posed by the decline and aging of populations between now and 2100. It finds that without reforms, pensions and health spending would rise to 25 percent of GDP by end-century in more developed countries (and 16 percent of GDP in less developed countries), with potentially dire fiscal consequences. Given the uncertainty underlying the population projections and associated large fiscal risks, a multi-pronged approach will be required. This could include entitlement reform—starting now but at a gradual pace; policies that affect demographics and labor markets; and better tax systems and more efficient public expenditure.

Duttagupta, Rupa, Stefania Fabrizio, Davide Furceri, and Sweta Saxena. 2017.

[“Growth that Reaches Everyone: Facts, Factors, Tools.”](#)
IMF Blog, September 20.

Frey, Carl Benedikt, and Michael A. Osborne. 2017.

[“The Future of Employment: How Susceptible Are Jobs to Computerization?”](#) *Technological Forecasting and Social Change* 114: 254–280.

This study examines how susceptible jobs are to computerization. To assess this, the authors begin by implementing a novel methodology to estimate the probability of computerization for 702 detailed occupations, using a Gaussian process classifier. Based on these estimates, they examine expected impacts of future computerization on US labor market outcomes, with the primary objective of analyzing the number of jobs at risk and the relationship between an occupation’s probability of computerization, wages and educational attainment. According to the authors’ estimates, about 47 percent of total US employment is at risk. The study further provides evidence that wages and educational attainment exhibit a strong negative relationship with an occupation’s probability of computerization.

International Monetary Fund. 2015.

[“Financing for Development: Revisiting the Monterrey Consensus.”](#) Policy Paper, International Monetary Fund, Washington, DC.

2015 was to be a pivotal year for the international development agenda, with agreements to be reached on the objectives and policies for promoting development that is economically, socially, and environmentally sustainable through 2030. The first stage in completing the debate on these issues is the Third UN Conference on Financing for Development, held in Addis Ababa during July 13–16, 2015, which aimed to build an international consensus on the actions needed to ensure that sufficient financing is available for developing countries in pursuing sustainable development.

McKinsey Global Institute. 2017.

[*A Future that Works: Automation, Employment, and Productivity.*](#) New York, NY: McKinsey Global Institute.

United Nations Conference on Trade and Development. 2016.

[“Robots and Industrialization in Developing Countries.”](#) Policy Brief 50, United Nations Conference on Trade and Development, Geneva.

World Bank. 2016.

[*World Development Report 2016: Digital Dividends.*](#) Washington, DC: World Bank Group.

Digital technologies have spread rapidly in much of the world. Digital dividends—that is, the broader development benefits from using these technologies—have lagged behind. In many instances, digital technologies have boosted growth, expanded opportunities, and improved service delivery. Yet their aggregate impact has fallen short and is unevenly distributed. For digital technologies to benefit everyone everywhere requires closing the remaining digital divide, especially in internet access. But greater digital adoption will not be enough. To get the most out of the digital revolution, countries also need to work on the “analog complements”—by strengthening regulations that ensure competition among businesses, by adapting workers’ skills to the demands of the new economy, and by ensuring that institutions are accountable.

World Bank and International Monetary Fund. 2016.

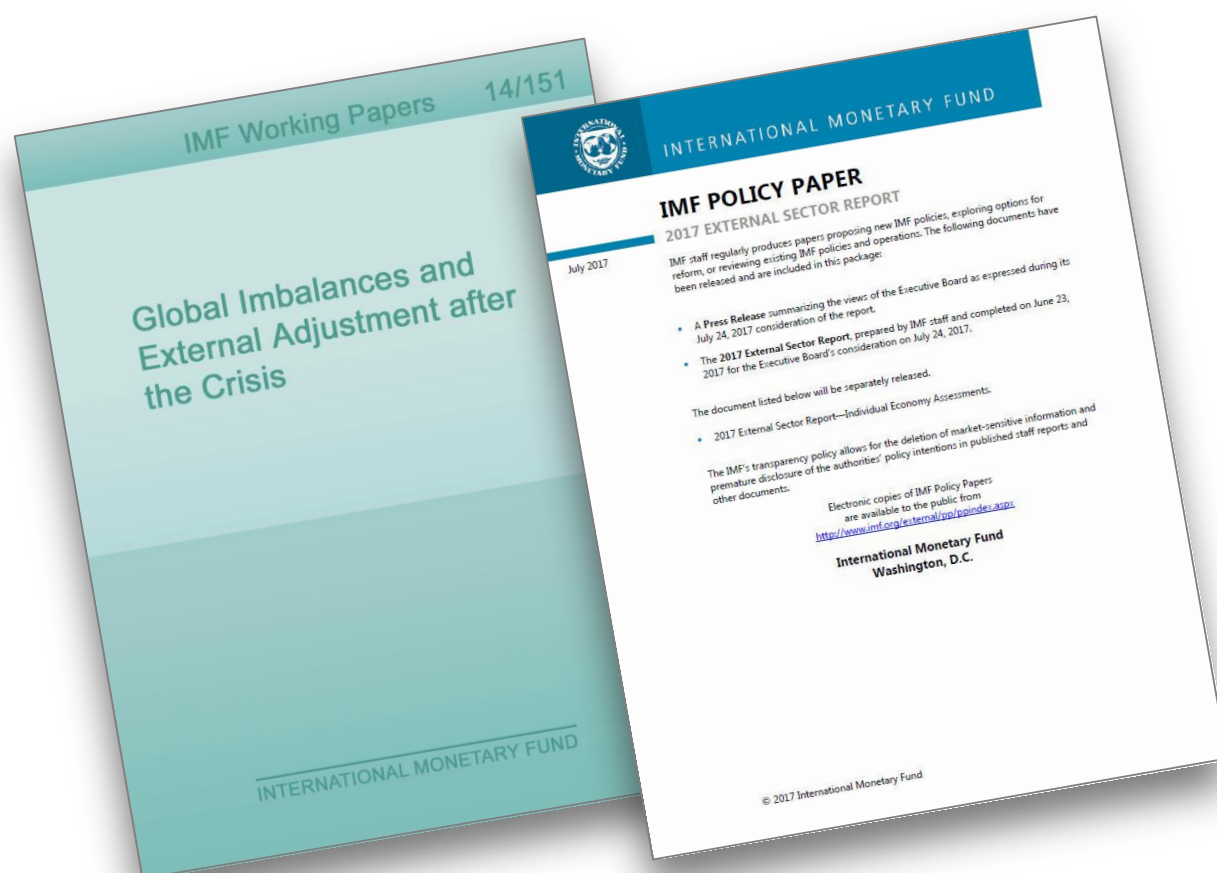
[“Development Goals in an Era of Demographic Change.”](#) Global Monitoring Report 2015/2016, World Bank Group; International Monetary Fund, Washington, DC.

The Global Monitoring Report 2015/2016, produced by the World Bank Group in partnership with the International Monetary Fund, comes at an inflection point in both the setting of global development goals and the demographic trends affecting those goals. This year marks the end of the Millennium Development Goals and the launching of the Sustainable Development Goals, while the World Bank Group has in parallel articulated the twin goals of sustainably ending extreme poverty and sharing prosperity. This report presents the latest global poverty numbers, based on the 2011 purchasing power parity data, and examines the pace of development progress through the lens of the evolving global development goals. The special theme of this year’s report examines the complex interaction between demographic change and development. With the number of children approaching a global ceiling of two billion, the world’s population is growing slower. It is also aging faster, with the share of people of working age starting a decline in 2013. But the direction and pace of these trends vary starkly across countries, with sizeable demographic disparities between centers of global poverty (marked by high fertility) and drivers of global growth (marked by rapid aging). These demographic disparities are expected to deeply affect the pursuit of the post-2015 agenda, accentuating existing challenges and creating new opportunities.

GLOBAL EXCESS IMBALANCES: RISKS AND POLICY RESPONSES

Sponsored by the IMF's Research Department; Strategy, Policy, and Review Department; and Monetary and Capital Markets Department

While global imbalances have fallen from pre-global financial crisis peaks, progress in reducing imbalances has stalled in recent years. Imbalances are also increasingly concentrated in advanced economies, and continuation of large and persistent surpluses suggest automatic adjustment mechanisms might be weak. The seminar will discuss the risks from the current configuration of excess imbalances, and the possible policy responses to correct macroeconomic policy and structural distortions, including on the trade front, to correct these excess imbalances in a growth-friendly way.



Adler, Gustavo, and Luis Cubeddu. 2017.

[“Global Imbalances: Avoiding a Tragedy of the Commons.”](#) *IMF Blog*, July 28.

As discussed in the 2017 External Sector Report, excess current account imbalances—that is, those beyond the levels warranted by country fundamentals—were broadly unchanged in 2016. They represented about one-third of total actual surpluses and deficits, with only small shifts in 2016. Since 2013, however, there has been a rotation of these excess imbalances toward advanced economies, posing new risks and policy challenges.

Bayoumi, Tamim, Joseph Gagnon, and Christian Saborowski. 2015.

[“Official Financial Flows, Capital Mobility, and Global Imbalances.”](#) *Journal of International Money and Finance* 52 (April): 146–174.

The authors use a cross-country panel framework to analyze the effect of net official flows (chiefly foreign exchange intervention) on current accounts. They find that net official flows have a large but plausible effect on current account balances. The estimated effects are larger with instrumental variables (42 cents to the dollar on average compared to 24 without instruments), reflecting a possible downward bias in regressions without instruments owing to an endogenous response of net official flows to private financial flows. The authors consistently find larger impacts of net official flows when international capital flows are restricted and smaller impacts when capital is highly mobile. A further result is that there is an important positive effect of lagged net official flows (embodied in the lagged stock of official assets) on current accounts that the authors believe operates through the portfolio balance channel.

Beckmann, Joscha, and Robert Czudaj. 2017.

[“Effective Exchange Rates, Current Accounts and Global Imbalances.”](#) *Review of International Economics* 25 (3): 500–533.

This study analyzes the dynamics between real effective exchange rates and current accounts from a novel perspective. It starts by dissecting long-term and time-varying short-term dynamics as well as causalities between both variables. Following this, the authors extend their framework by including short-term interest rates. Finally, they examine common exchange rate and current account dynamics across countries based on common factors. The results show that a real appreciation coincides with a worsening of the current account in most cases. The adjustment pattern is time-varying but suggests that the causality mainly runs from effective exchange rates to current accounts. However, an extension of the authors’ framework based on monthly data shows that trade balance adjustment is observed less frequently, suggesting that

valuation effects play an important role for the relationship between current accounts and exchange rates. From a global point of view, cross-country trends which drive exchange rates and current accounts also share similar dynamics over the long-term, which is an important finding in the context of global imbalances.

Bergsten, C. Fred, and Joseph E Gagnon. 2017.

[Currency Conflict and Trade Policy: A New Strategy for the United States.](#) Washington, DC: Peterson Institute for International Economics.

Conflicts over currency valuations are a recurrent feature of the modern global economy. To strengthen their international competitiveness, many countries resort to buying foreign currencies to make their exports cheaper and their imports more expensive. In the first decade of the 21st century, for example, China’s currency manipulation practices were so flagrant that they produced a backlash in the United States and other trading partners, prompting threats of retaliation. How damaging is the practice of currency manipulation—and how extensive is the problem? This book by C. Fred Bergsten and Joseph E. Gagnon—two leading experts on trade, investment, and the effects of currency manipulation—traces the history, causes, and effects of currency manipulation and analyzes a range of policy responses that the United States could adopt. The book is an indispensable guide to a complex and serious problem and what might be done to solve it.

Borio, Claudio. 2014.

[“The International Monetary and Financial System: Its Achilles Heel and What to Do About It.”](#) Working Paper 203, Federal Reserve Bank of Dallas, Dallas, Texas.

This essay argues that the Achilles heel of the international monetary and financial system is that it amplifies the “excess financial elasticity” of domestic policy regimes—that is, it exacerbates their inability to prevent the build-up of financial imbalances, or outsize financial cycles, that lead to serious financial crises and macroeconomic dislocations. This excess financial elasticity view contrasts sharply with two more popular ones, which stress the failure of the system to prevent disruptive current account imbalances and its tendency to generate a structural shortage of safe assets—the “excess saving” and “excess demand for safe assets” views, respectively. In particular, the excess financial elasticity view highlights financial rather than current account imbalances and a persistent expansionary rather than contractionary bias in the system. The failure to adjust domestic policy regimes and their international interaction raises a number of risks: entrenching instability in the global system; returning to the modern-day equivalent of the divisive competitive devaluations of the interwar years; and, ultimately, triggering an epoch-defining seismic rupture in policy regimes, back to an era of trade and financial protectionism and, possibly, stagnation combined with inflation.

Caballero, Ricardo, Emmanuel Farhi, and Pierre-Olivier Gourinchas. 2015.

[“Global Imbalances and Currency Wars at the ZLB.” Working Paper 21670, National Bureau of Economic Research, Cambridge, MA.](#)

This paper explores the consequences of extremely low equilibrium real interest rates in a world with integrated but heterogeneous capital markets and nominal rigidities. In this context, the authors establish five main results: (1) Economies experiencing liquidity traps pull others into a similar situation by running current account surpluses; (2) Reserve currencies have a tendency to bear a disproportionate share of the global liquidity trap, a phenomenon they dub the “reserve currency paradox”; (3) While more price and wage flexibility exacerbates the risk of a deflationary global liquidity trap, it is the more rigid economies that bear the brunt of the recession; (4) Beggar-thy-neighbor exchange rate devaluations provide stimulus to the undertaking country at the expense of other countries (zero-sum); and (5) Safe public debt issuances, helicopter drops of money, and increases in government spending in any country are expansionary for all countries (positive-sum). The authors use these results to shed light on the evolution of global imbalances, interest rates, and exchange rates since the beginning of the global financial crisis.

Chinn, Menzie. 2017.

[“The Once and Future Global Imbalances? Interpreting the Post-Crisis Record.” Paper presented at the Federal Reserve Bank of Kansas City Annual Economic Policy Symposium, Jackson Hole, August 24–26.](#)

Global current account imbalances have reappeared, although the extent and distribution of these imbalances are noticeably different from those experienced in the middle of the past decade. What does that recurrence mean for our understanding of the origin and nature of such imbalances? Will imbalances persist over time? Informed by empirical estimates of the determinants of current account imbalances encompassing the period after the global recession, the author finds that—as before—the observable manifestations of the factors driving the global saving glut have had limited explanatory power for the time series variation in imbalances. Nonetheless, fiscal factors have accounted for a noticeable share of the recent variation in imbalances, including in the United States and Germany. Examining observable policy actions, it’s clear that net official flows have been associated with some share of imbalances, although tracing out the motivations for intervention is difficult. Looking forward, it’s clear that policy can influence global imbalances, although some component of the US deficit will likely remain given the US role in generating safe assets.

Chinn, Menzie D., Barry Eichengreen, and Hiro Ito. 2011.

[“A Forensic Analysis of Global Imbalances.” Working Paper 17513, National Bureau of Economic Research, Cambridge, MA.](#)

This paper investigates whether the determinants of current account balances changed in the run-up to the 2009 financial crisis. Although changes in the budget balance appear to be an important factor for advanced current account deficit countries, such as the United States, the effect of the “saving glut variables”—that is, financial development and openness and legal development, has been relatively stable for emerging market countries, suggesting that those factors cannot explain the bulk of current account movements in recent years. The authors also find a structural break in current account behavior in 2006–08, in emerging market economies in particular, and attribute the anomalous behavior of precrisis current account balances to financial exuberance as opposed to the nature of the fiscal and monetary policy stance. The authors’ projections suggest that absent drastic policy changes, the imbalances of the United States and China are unlikely to disappear.

Chinn, Menzie, Barry Eichengreen and Hiro Ito. 2012.

[“Rebalancing Global Growth.” In *Ascent after Decline: Regrowing Global Economies after the Great Recession*, edited by Otaviano Canuto and Danny Leipziger, 35–86. Washington, DC: World Bank.](#)

Describes the specific policy challenges facing the principal national and regional economies, and analyzes how much adjustment in current account imbalances to expect in the short and long run. Although the United States plays a disproportionately large role in the problem of global imbalances, the task of rebalancing global growth is not simply a US issue or even a US and China issue. A substantial number of countries, advanced and emerging, participated in the development of these imbalances, including Northern Europe, Southern Europe, and other East Asian countries. Several measures in policy action can make imbalances safe for growth during the transitional period: (1) Redouble regulatory reform efforts; (2) Coordinate financial reform internationally; (3) Apply regulation more countercyclically; (4) Monitor and limit foreign-currency-denominated borrowing; (5) Redefine the central banks’ role; (6) Adjust fiscal policy more proactively; (7) Hasten correction of global imbalances; and (8) Slow foreign exchange reserve accumulation.

Eichengreen, Barry. 2014.

["A Requiem for Global Imbalances."](#) *Project Syndicate*, January 13.

Eichengreen, Barry. 2006.

[*Global Imbalances and the Lessons of Bretton Woods.*](#) Cambridge, MA: MIT Press.

In *Global Imbalances and the Lessons of Bretton Woods*, Barry Eichengreen takes issue with the argument that today's international financial system is largely analogous to the Bretton Woods System of the period 1958 to 1973. Then, as now, it has been argued, the United States ran balance of payment deficits, provided international reserves to other countries, and acted as export market of last resort for the rest of the world. Then, as now, the story continues, other countries were reluctant to revalue their currencies for fear of seeing their export-led growth slow and suffering capital losses on their foreign reserves. Eichengreen argues in response that the power of historical analogy lies not just in finding parallels but in highlighting differences, and he finds important differences in the structure of the world economy today. Such differences, he concludes, mean that the current constellation of exchange rates and payments imbalances is unlikely to last as long as the original Bretton Woods System.

Fogli, Alessandra, and Fabrizio Perri. 2015.

["Macroeconomic Volatility and External Imbalances."](#) *Working Paper 20872, National Bureau of Economic Research, Cambridge, MA.*

Does macroeconomic volatility/uncertainty affect accumulation of net foreign assets? In OECD economies over the period 1970–2012, changes in country specific aggregate volatility are, after controlling for a wide array of factors, significantly positively associated with net foreign asset position. A standard open economy model with time varying macroeconomic uncertainty can quantitatively account for this relationship. The key mechanism is precautionary motive: more uncertainty induces residents to save more, and higher savings are in part channeled into foreign assets. Data and theory suggest that volatility is an important determinant of the medium- and/or long-term evolution of external imbalances in developed countries.

Gagnon, Joseph. 2013.

["The Elephant Hiding in the Room: Currency Intervention and Trade Imbalances."](#) *Working Paper 13–2, Peterson Institute for International Economics, Washington, DC.*

Official purchases of foreign assets—a broad definition of currency intervention—are strongly correlated with current account (trade) imbalances. Causality runs in both directions, but statistical analysis using instrumental variables reveals that

the effect of official asset purchases on current accounts is very large. A country's current account balance increases between 60 and 100 cents for each dollar spent on intervention. This is a much larger effect than is widely assumed. These results raise serious questions about the efficiency of international financial markets.

International Monetary Fund. 2017.

["2017 External Sector Report."](#) *Policy Paper, International Monetary Fund, Washington, DC.*

Global current account imbalances were broadly unchanged in 2016, with minor shifts adding to the reconfiguration under way since 2013. The fall in commodity prices, uneven cyclical recoveries in systemic economies, and differences in policy responses contributed to the rotation of imbalances. Current account surpluses of oil-exporting economies, as a group, shifted from large surpluses to small deficits, while deficits in emerging and developing economies narrowed markedly. At the same time, surpluses and deficits in key advanced economies widened. These trends were generally supported by real exchange rate movements. Overall excess current account imbalances (that is, deficits or surpluses that deviate from desirable levels) represented about one-third of total global imbalances in 2016, remaining broadly unchanged since 2013, although increasingly concentrated in advanced economies. In particular, excess imbalances narrowed in emerging and developing economies, led by a smaller excess surplus in China and smaller excess deficits in others (Brazil, Indonesia, South Africa, Turkey). This narrowing, however, was accompanied by a widening of excess imbalances in some advanced economies. The persistence of large excess surpluses in several advanced economies (for example, Germany, Korea, the Netherlands, Singapore, Sweden) remains a distinguishing feature of the constellation of imbalances, an issue that is explored in greater detail in this year's report.

Ivanova, Anna. 2012.

["Current Account Imbalances: Can Structural Policies Make a Difference?"](#) *Working Paper 12/61, International Monetary Fund, Washington, DC.*

The discussion of global and regional imbalances has put the spotlight on the possible link between current accounts and structural policies. Drawing on standard empirical current account models, the paper finds that the commonly recommended structural factors cannot explain the widening of imbalances prior to the 2008–09 crisis. That said, structural factors do help explain some part of long-standing cross-country differences in the current account levels. In particular, countries with stricter credit market regulation, higher taxes on businesses, lower minimum wage (in particular, in slow growing economies) and generous unemployment benefits tend to have higher current account balances than others.

Lane, Philip, and Gian Maria Milesi-Ferretti. 2014.

[“Global Imbalances and External Adjustment after the Crisis.” Working Paper 14/151, International Monetary Fund, Washington, DC.](#)

This paper has two objectives. First, it reviews the recent dynamics of global imbalances (both “flow” and “stock” imbalances), with a special focus on the shifting position of Latin America in the global distribution. Second, it examines the cross-country variation in external adjustment over 2008–12. In particular, it shows how pre-crisis external imbalances have strong predictive power for post-crisis macroeconomic outcomes, allowing for variation across different exchange rate regimes. The authors emphasize that the bulk of external adjustment has taken the form of “expenditure reduction,” with “expenditure switching” only playing a limited role.

Lane, Philip, and Gian Maria Milesi-Ferretti. 2012.

[“External Adjustment and the Global Crisis.” *Journal of International Economics* 88 \(2\): 252–265.](#)

The period preceding the global financial crisis was characterized by a substantial widening of current account imbalances across the world. Since the onset of the crisis, these imbalances have contracted to a significant extent. This paper analyzes the ongoing process of external adjustment in advanced economies and emerging markets. The authors find that countries whose pre-crisis current account balances were in excess of what could be explained by standard economic fundamentals have experienced the largest contractions in their external balance. They subsequently examine the contributions of real exchange rates, domestic demand and domestic output to the adjustment process (allowing for differences across exchange rate regimes) and find that external adjustment in deficit countries was achieved primarily through demand compression, rather than expenditure switching. Finally, the authors show that changes in other investment flows were the main channel of financial account adjustment, with official external assistance and ECB liquidity cushioning the exit of private capital flows for some countries.

Lee, Jaewoo, Gian Maria Milesi-Ferretti, Jonathan Ostry, Alessandro Prati, and Luca Antonio Ricci. 2008.

[“Exchange Rate Assessments: CGER Methodologies.” Occasional Paper 261, International Monetary Fund, Washington, DC.](#)

The rapid increase in international trade and financial integration over the past decade and the growing importance of emerging markets in world trade and GDP have inspired the IMF to place stronger emphasis on multilateral surveillance, macro-financial linkages, and the implications of globalization. The IMF's Consultative Group on Exchange Rate Issues—formed in the mid-1990s to provide exchange rate assessments for a number of advanced economies from a multilateral

perspective—has therefore broadened its mandate to cover both key advanced economies and major emerging market economies. This Occasional Paper summarizes the methodologies that underpin the expanded analysis.

Marchetti, Juan, Michele Ruta, and Robert Teh. 2012.

[“Trade Imbalances and Multilateral Trade Cooperation.” Working Paper 4050, CESifo, Munich.](#)

Rising current account and merchandise trade imbalances marked the years before the global financial and economic crisis. These imbalances either contributed to or precipitated the crisis and to the extent that they create systemic risks, it is desirable that they be reduced. There are many factors related to macroeconomic, structural, exchange rate and financial policies that contributed to the imbalances. The inability to manage these issues at the international level reflects the “coherence gap” in global governance. This paper examines the contribution that the World Trade Organization (WTO) can make in its three areas of activities—negotiations, rule-making and dispute settlement—to deal with trade imbalances and with the main factors leading to them, including exchange rate misalignments. First, market opening efforts in services, including in the area of financial services, can reduce policy-related distortions and market imperfections in surplus countries that lead to the build-up of unsustainable imbalances. Second, in the context of a broad international effort to coordinate macroeconomic, exchange rate and structural policies to deal with the roots of imbalances (the first-best solution), there is a general efficiency argument that could be made for the use of WTO-triggered trade actions to enforce cooperative behavior towards rebalancing. Absent this first-best response, trade rules alone would not provide an efficient instrument to compensate for the weaknesses in international co-operation in macroeconomic, exchange rate and structural policies.

Obstfeld, Maurice. 2012.

[“Does the Current Account Still Matter?” Working Paper 17877, National Bureau of Economic Research, Cambridge, MA.](#)

Do global current account imbalances still matter in a world of deep international financial markets where gross two-way financial flows often dwarf the net flows measured in the current account? Contrary to a complete markets or “consenting adults” view of the world, large current account imbalances, while very possibly warranted by fundamentals and welcome, can also signal elevated macroeconomic and financial stresses, as was arguably the case in the mid-2000s. Furthermore, the increasingly big valuation changes in countries' net international investment positions, while potentially important in risk allocation, cannot be relied upon systematically to offset the changes in national wealth implied by the current account. The same factors that dictate careful attention to global imbalances also imply, however, that data

on gross international financial flows and positions are central to any assessment of financial stability risks. The balance sheet mismatches of leveraged entities provide the most direct indicators of potential instability, much more so than do global imbalances, though the imbalances may well be a symptom that deeper financial threats are gathering.

Obstfeld, Maurice. 2017.

“Assessing Global Imbalances: The Nuts and Bolts.”
IMFBlog, June 26.

Current account imbalances can be healthy or a sign of macroeconomic and financial stress—which makes their evaluation tricky. In line with its mandate of promoting international monetary cooperation, the IMF conducts annual external assessments for the world’s largest economies. The objective is to alert the global community to potential risks that countries need to address together.

Obstfeld, Maurice. 2012.

“Financial Flows, Financial Crises, and Global Imbalances.” *Journal of International Money and Finance*
31 (3): 469–480.

In this lecture, the author documents the proliferation of gross international asset and liability positions and discuss some consequences for individual countries’ external adjustment processes and for global financial stability. In light of the rapid growth of gross global financial flows and the serious risks associated with them, one might wonder about the continuing relevance of the net financial flow measured by the current account balance. The author argues that global current account imbalances remain an essential target for policy scrutiny, for financial as well as macroeconomic reasons. Nonetheless, it is critically important for policymakers to monitor as well the rapidly evolving structure of global gross assets and liabilities

Obstfeld, Maurice, and Kenneth Rogoff. 2005.

“Global Current Account Imbalances and Exchange Rate Adjustments.” *Journal of Policy Modeling* 29 (5): 705–709.

An eventual adjustment of the outsized US current account deficit is likely to have significant impact on global exchange rates unless it occurs only over a very long period. Policy responses aimed at reducing the risk of a recession are warranted, but they will not necessarily avoid the exchange rate adjustment.

Ollivaud, Patrice, and Cyrille Schwellnus. 2013.

“The Post-Crisis Narrowing of International Imbalances Cyclical or Durable?” Working Papers 1062, Organisation for Economic Co-operation and Development, Paris.

After peaking in the first half of 2008, international imbalances declined sharply during the global crisis of 2008–09, in part reflecting cyclical factors such as large contractions in domestic demand on the back of bursting housing bubbles in a number of deficit countries, as well as large declines in cross-border capital flows, interest rates and commodity prices. This paper suggests that business and housing cycles alone account for about half of the decline in international imbalances, with real exchange rate and fiscal adjustments explaining only about one-fifth. A range of stylized scenarios for the major trading areas that extends the short-term projections in OECD Economic Outlook 93 of May 2013 to 2020 suggests that in the absence of policy adjustments beyond 2014 international imbalances could rebound as output gaps gradually close and housing markets normalize, though to levels below the pre-crisis peak. Ambitious fiscal adjustment in countries with the largest remaining fiscal imbalances and selected structural reforms could offset the cyclical rebound in international imbalances and prevent diverging net asset positions in most areas. Moreover, ambitious fiscal and structural policy adjustments would provide some margin in case upside risks to international imbalances—such as renewed housing booms that could be triggered by a rebound in cross-border capital flows or higher oil prices—materialize.

Phillips, Steven, Luis Catão, Luca A. Ricci, Rudolfs Bems, Mitali Das, Julian Di Giovanni, Filiz D. Unsal, Marola Castillo, Jungjin Lee, Jair Rodriguez, and Mauricio Vargas. 2013.

“The External Balance Assessment (EBA) Methodology.” Working Paper 13/272, International Monetary Fund, Washington, DC.

The External Balance Assessment (EBA) methodology has been developed by the IMF’s Research Department as a successor to the CGER methodology for assessing current accounts and exchange rates in a multilaterally consistent manner. Compared to other approaches, EBA emphasizes distinguishing between the positive empirical analysis and the normative assessment of current accounts and exchange rates, and highlights the roles of policies and policy distortions. This paper provides a comprehensive description and discussion of the 2013 version (“2.0”) of the EBA methodology, including areas for its further development.

Prasad, Eswar. 2009.

["A G-20 Insurance Solution for Global Imbalances."](#)
Brookings website, March 10.

Prasad, Eswar. 2009.

["Role Reversal in Global Finance."](#) Working Paper 17497,
National Bureau of Economic Research, Cambridge, MA.

The author documents that emerging markets have cast off their "original sin"—their external liabilities are no longer dominated by foreign-currency debt and have instead shifted sharply towards direct investment and portfolio equity. Their external assets are increasingly concentrated in foreign exchange reserves held in advanced economy government bonds. Given the enormous and rising public debt burdens of reserve currency economies, this means that the long-term risk on emerging markets' external balance sheets is shifting to the asset side. However, emerging markets continue to look for more insurance against balance of payments crises, even as self-insurance through reserve accumulation itself becomes riskier. The author discusses a possible mechanism for global liquidity insurance that would meet emerging markets' demand for insurance with fewer domestic policy distortions while facilitating a quicker adjustment of global imbalances. He also argues that emerging markets have become less dependent on foreign finance and more resilient to capital flow volatility. The main risk that increasing financial openness poses for these economies is that capital flows exacerbate vulnerabilities arising from weak domestic policies and institutions.

crisis, and their policy implications. A conventional view of global imbalances considers them to primarily result from macroeconomic policies and cyclical forces that cause demand for goods to outstrip supply in the United States and other rich countries and that have the opposite effect in major emerging markets. An alternative view holds that global imbalances are the result of structural distortions and slow-changing factors that primarily affect assets markets. This paper reviews the analytical underpinnings of these two perspectives and the empirical evidence of their respective merits. The paper then assesses the outlook for global imbalances after the crisis, particularly in terms of policy action to reduce their magnitude. Policy intervention is warranted to the extent that the imbalances are driven by welfare-reducing distortions, but in this case, the primary target of policy intervention should be the distortions rather than the imbalances. Finally, the paper examines various forms of international spillovers that may call for multilateral action to limit global imbalances.

Setser, Brad. 2016.

["The Return of the East Asian Savings Glut."](#) Discussion Paper, Council for Foreign Relations, New York, NY.

The combined savings of China, Japan, Korea, Taiwan, and the two city-states of Hong Kong and Singapore is about 40 percent of their collective GDP, a 35-year high. No other region of the world currently contributes more to the global glut in savings that has brought interest rates around the world down to record lows. Asia's current account surplus—its excess of savings over investment—has increased significantly in the past two years and is now about as large, relative to the GDP of its trading partners, as it was prior to the global financial crisis. Without a policy push to bring down savings, East Asia's excess savings will continue to give rise to new economic and financial risks, both inside the region and globally.

Serven, Luis, and Ha Nguyen. 2013.

["Global Imbalances: Origins and Prospects."](#) *The World Bank Research Observer* 28 (2): 191–219.

This paper surveys the academic and policy debate on the origins of global imbalances, their prospects after the global

CNN DEBATE ON THE GLOBAL ECONOMY

Sponsored by the IMF's Research Department

The global recovery has gained momentum, but how can we sustain it and ensure more people reap the benefits? Technological advancements, global integration, and the rise of the sharing economy create opportunities, but also present enormous challenges, especially for low-skilled workers. The panelists discuss how to strengthen the recovery and design public policies that create durable and inclusive growth.



Edmonds, David, and Andrew Orr. 2017.

[Uncovering Opportunities in 2017: Deleveraging Europe 2016–2017](#). London: Deloitte.

The European loan portfolio market has regained much of the momentum it established over the past number of years. Uncertainty over the terms of Brexit and the US Presidential transition temporarily delayed deal making in mid-2016, but the fundamental balance sheet and regulatory drivers of loan sale transactions proved stronger. Six months ago, the authors forecast a second half resurgence in loan portfolio sales; that is what has happened, with more to come in 2017.

He, Dong, Ross Leckow, Vikram Haksar, Tommaso Mancini-Griffoli, Nigel Jenkinson, Mikari Kashima, Tanai Khiaonaron, Céline Rochon, and Hervé Tourpe. 2017.

[“Fintech and Financial Services: Initial Considerations.” Staff Discussion Note 17/05, International Monetary Fund, Washington, DC.](#)

A new wave of technological innovations, often called ‘fintech,’ is accelerating change in the financial sector. What impact might fintech have on financial services, and how should regulation respond? This paper sets out an economic framework for thinking through the channels by which fintech might provide solutions that respond to consumer needs for trust, security, privacy, and better services, change the competitive landscape, and affect regulation. It combines a broad discussion of trends across financial services with a focus on cross-border payments and especially the impact of distributed ledger technology. Overall, the paper finds that boundaries among different types of service providers are blurring; barriers to entry are changing; and improvements in cross-border payments are likely. It argues that regulatory authorities need to balance carefully efficiency and stability trade-offs in the face of rapid changes, and ensure that trust is maintained in an evolving financial system. It also highlights the importance of international cooperation.

International Monetary Fund. 2017.

[“The Effects of Weather Shocks on Economic Activity: How Can Low-Income Countries Cope?” In *World Economic Outlook: Seeking Sustainable Growth—Short-term Recovery, Long-term Challenges*, 117–183. Washington, DC: International Monetary Fund.](#)

Global temperatures have increased at an unprecedented pace over the past 40 years, and significant further warming could occur, depending on our ability to restrain greenhouse gas emissions. This chapter finds that increases in temperature have uneven macroeconomic effects, with adverse consequences concentrated in countries with relatively hot climates, such as most low-income countries. In these countries, a rise in temperature lowers per capita output, in both the short and medium term. Sound domestic policies and development alongside investment in adaptation strategies could help to

some extent, but given the constraints faced by low-income countries, the international community must play a key role in supporting these countries’ efforts to cope with climate change.

International Monetary Fund. 2017.

[“Global Prospects and Policies.” In *World Economic Outlook: Seeking Sustainable Growth—Short-term Recovery, Long-term Challenges*. Washington, DC: International Monetary Fund.](#)

The global upswing in economic activity is strengthening. Global growth, which in 2016 was the weakest since the global financial crisis at 3.2 percent, is projected to rise to 3.6 percent in 2017 and to 3.7 percent in 2018. The growth forecasts for both 2017 and 2018 are 0.1 percentage point stronger compared with projections earlier this year. Broad-based upward revisions in the euro area, Japan, emerging Asia, emerging Europe, and Russia—where growth outcomes in the first half of 2017 were better than expected—more than offset downward revisions for the United States and the United Kingdom.

But the recovery is not complete: while the baseline outlook is strengthening, growth remains weak in many countries, and inflation is below target in most advanced economies. Commodity exporters, especially of fuel, are particularly hard hit as their adjustment to a sharp step down in foreign earnings continues. And while short-term risks are broadly balanced, medium-term risks are still tilted to the downside. The welcome cyclical pickup in global activity thus provides an ideal window of opportunity to tackle the key policy challenges—namely to boost potential output while ensuring its benefits are broadly shared, and to build resilience against downside risks. A renewed multilateral effort is also needed to tackle the common challenges of an integrated global economy.

International Monetary Fund. 2017.

[Fostering Inclusive Growth](#). Washington, DC: International Monetary Fund.

Inclusive growth is a priority that resonates globally today. It relates to a broad sharing of the benefits of, and the opportunities for, economic growth, and reflects growth that is robust and broad-based across sectors, promotes productive employment across the labor force, embodies equal opportunities in access to markets and resources, and protects the vulnerable. The G20 has emphasized the need for inclusive growth. In this regard, the Hangzhou G20 leaders’ Summit in September 2016 renewed the emphasis on inclusive growth called for the forging of both a narrative for strong, sustainable, balanced and inclusive growth and for adopting a package of policies to make this possible. The communique stated that the G20 would “work to ensure that our economic growth serves the needs of everyone and benefits all countries and all people including in particular women, youth and disadvantaged groups, generating more quality jobs, addressing inequalities and

eradicating poverty so that no one is left behind.” G20 Ministers returned to this in March 2017 in Baden-Baden noting that: “We reiterate our determination to use all policy tools—monetary, fiscal and structural—individually and collectively to achieve our goal of strong, sustainable, balanced and inclusive growth, while enhancing economic and financial resilience.” Economic growth and inequality, the two sides of inclusion, have a complex nexus that can generate tradeoffs. Growth is the basis for generating inclusion. Across countries, growth has been instrumental in narrowing income gaps; within countries, growth has reduced poverty and made possible higher living standards and job opportunities. But policies driven by an exclusive growth focus can also set back inclusion in certain circumstances. While some inequality is integral to a market economy, high and persistent inequality can undermine the sustainability of growth itself.

International Monetary Fund. 2017.

[“Household Debt and Financial Stability?” In *Global Financial Stability Report: Is Growth at Risk?* 53-89. Washington, DC: International Monetary Fund.](#)

The October 2017 Global Financial Stability Report finds that the global financial system continues to strengthen in response to extraordinary policy support, regulatory enhancements, and the cyclical upturn in growth. It also includes a chapter that examines the short- and medium-term implications for economic growth and financial stability of the past decades’ rise in household debt. It documents large differences in household debt-to-GDP ratios across countries but a common increasing trajectory that was moderated but not reversed by the global financial crisis. Another chapter develops a new macroeconomic measure of financial stability by linking financial conditions to the probability distribution of future GDP growth and applies it to a set of 20 major advanced and emerging market economies. The chapter shows that changes in financial conditions shift the whole distribution of future GDP growth.

International Monetary Fund, World Bank, and World Trade Organization. 2017.

[“Making Trade an Engine of Growth for All: The Case for Trade and Policies to Facilitate Adjustment.” Policy Paper, International Monetary Fund, Washington, DC.](#)

The role of trade in the global economy is at a critical juncture. Increased trade integration helped to drive economic growth in advanced and developing economies in the latter part of the 20th century. Since the early 2000’s, however, a slowdown in the pace of trade reform, a post-crisis uptick in protectionism, and risk of further reversals have been a drag on trade, productivity, and income growth. At the same time, trade is leaving too many individuals and communities behind, notably also in advanced economies. To be sure, job losses in certain sectors or regions in advanced economies have resulted to a large extent from technological changes rather than from trade. But adjustment to trade can bring a human and economic downside that is frequently concentrated, sometimes harsh, and

has too often become prolonged. It need not be that way. With the right policies, countries can benefit from the great opportunities that trade brings and lift up those who have been left behind. Those policies ease adjustment to trade, as well as strengthen overall economic flexibility and performance.

Organisation for Economic Co-operation and Development. 2017.

[“Making Globalisation Work: Better Lives for All.” Meeting of the Organisation for Economic Co-operation and Development Council at Ministerial Level, Paris, June 7-8.](#)

The meeting brought together ministers from members and Partners to explore policies that could deliver a more inclusive globalization and respond to growing citizens’ concerns that globalization has not benefitted fairly to all. The MCM offered the possibility to discuss a new inclusive growth narrative centered on improving well-being for all in open and digitalized economies and define a more people-centered approach to international standard-setting.

Lagarde, Christine. 2017.

[“A Time to Repair the Roof.” Speech at Kennedy School of Government, Harvard University, Boston, October 5.](#)

Rodrik, Dani. 2017.

[“Populism and the Economics of Globalization.” Dani Rodrik \(website\), August 1.](#)

Populism may seem like it has come out of nowhere, but it has been on the rise for a while. The author argues that economic history and economic theory both provide ample grounds for anticipating that advanced stages of economic globalization would produce a political backlash. While the backlash may have been predictable, the specific form it took was less so. The author also distinguishes between left-wing and right-wing variants of populism, which differ with respect to the societal cleavages that populist politicians highlight. The first has been predominant in Latin America, and the second in Europe. The author argues that these different reactions are related to the relative salience of different types of globalization shocks.

United Nations Industrial Development Organization. 2016.

[“The Role of Technology and Innovation in Inclusive and Sustainable Industrial Development.” Industrial Development Report 2016, United Nations Industrial Development Organization, Vienna.](#)

Under what conditions can technological change trigger structural change in developing countries and lead to long-term, socially inclusive and environmentally sustainable industrial development? That is the central question addressed in this Industrial Development Report 2016. The Lima Declaration,

adopted by the Member States of the United Nations Industrial Development Organization in December 2013, set the foundation for a new vision of inclusive and sustainable industrial development (ISID). The ISID concept is part of the new Sustainable Development Goal 9 to build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation. ISID has three elements, which are the framework for this report. The first is long-term, sustained industrialization as a driver for economic development. The second is socially inclusive industrial development and society, offering equal opportunities and an equitable distribution of benefits. And the third is environmental sustainability, decoupling the prosperity generated by industrial activities from excessive natural resource use and negative environmental impact. This three-dimensional structure feeds through to the policy recommendations for dealing with the many trade-offs that countries face in sustaining economic growth, promoting social inclusiveness and moving towards greener economic transformations.

World Economic Forum. 2017.

[The Inclusive Growth and Development Report 2017.](#) Geneva: World Economic Forum.

Around the world, no bigger policy challenge preoccupies leaders than expanding social participation in the process and benefits of economic growth. The report, which covers 109 economies, seeks to improve our understanding of how countries can use a diverse spectrum of policy incentives and institutional mechanisms to make economic growth more socially inclusive without dampening incentives to work, save and invest. The Report presents a new global index, the Inclusive Development Index, providing a richer and more nuanced assessment of countries' level (and recent performance) of economic development than the conventional one based on GDP per capita alone. It also provides a policy framework showing the many factors that can drive a more inclusive growth process.

FINTECH – CHALLENGES TO REGULATION AND CENTRAL BANKING

Sponsored by the IMF's Legal Department

How much of Fintech is hype and how much is reality, and how should policy and regulation respond to this fast-changing industry? This seminar will consider how the financial services landscape may be transformed by the widespread adoption of financial technology and how central banks and regulators can mitigate potential risks to financial stability and integrity without stifling innovation.



Committee on Payments and Market Infrastructures (CPMI). 2017.

[Distributed Ledger Technology in Payment, Clearing and Settlement: An Analytical Framework.](#) Basel: Bank for International Settlements.

This report provides an analytical framework for central banks and other authorities to review and analyze the use of the distributed ledger (or blockchain) technology for payment, clearing and settlement. Market participants and other interested parties may also find this report useful. The main aim of the framework is to help understand the uses of Distributed Ledger Technology and, in doing so, identify both the opportunities and challenges associated with this technology in a critical part of the financial system. Through this framework, central banks and other interested parties can better determine the technology's potential to provide operational efficiencies and to make financial markets more robust and resilient.

Financial Stability Board. 2017.

[“Financial Stability Implications from Fintech: Supervisory and Regulatory Issues that Merit Authorities’ Attention.”](#) Reports to the G20, Financial Stability Board, Basel.

He, Dong, Ross B. Leckow, Vikram Haksar, Tommaso Mancini Griffoli, Nigel Jenkinson, Mikari Kashima, Tanai Khiaonaron, Céline Rochon, and Hervé Tourpe. 2017.

[“Fintech and Financial Services: Initial Considerations.”](#) Staff Discussion Notes 17/05, International Monetary Fund, Washington, DC.

A new wave of technological innovations, often called “fintech,” is accelerating change in the financial sector. What impact might fintech have on financial services, and how should regulation respond? This paper sets out an economic framework for thinking through the channels by which fintech might provide solutions that respond to consumer needs for trust, security, privacy, and better services, change the competitive landscape, and affect regulation. It combines a broad discussion of trends across financial services with a focus on cross-border payments and especially the impact of distributed ledger technology. Overall, the paper finds that boundaries among different types of service providers are blurring; barriers to entry are changing; and improvements in cross-border payments are likely. It argues that regulatory authorities need to balance carefully efficiency and stability trade-offs in the face of rapid changes, and ensure that trust is maintained in an evolving financial system. It also highlights the importance of international cooperation.

He, Dong, Karl F. Habermeier, Ross B. Leckow, Vikram Haksar, Yasmin Almeida, Mikari Kashima, Nadim Kyriakos-Saad, Hiroko Oura, Tahsin Saadi Sedik, Natalia Stetsenko, and Concepcion Verdugo-Yepes. 2016.

[“Virtual Currencies and Beyond: Initial Considerations.”](#) Staff Discussion Notes 16/3, International Monetary Fund, Washington, DC.

New technologies are driving transformational changes in the global financial system. Virtual currencies (VCs) and the underlying distributed ledger systems are among these. VCs offer many potential benefits, but also considerable risks. VCs could raise efficiency and in the long term strengthen financial inclusion. At the same time, VCs could be potential vehicles for money laundering, terrorist financing, tax evasion and fraud. While risks to the conduct of monetary policy seem less likely to arise at this stage given the very small scale of VCs, risks to financial stability may eventually emerge as the new technologies become more widely used. National authorities have begun to address these challenges and will need to calibrate regulation in a manner that appropriately addresses the risks without stifling innovation. As experience is gained, international standards and best practices could be considered to provide guidance on the most appropriate regulatory responses in different fields, thereby promoting harmonization and cooperation across jurisdictions.

Lagarde, Christine. 2017.

[“Fintech—a Brave New World for the Financial Sector?”](#) *IMF Blog*, International Monetary Fund, March 21.

Lagarde, Christine. 2017.

[“Fintech: Capturing the Benefits, Avoiding the Risks.”](#) *IMF Blog*, International Monetary Fund, June 20.

FRIDAY, October 13, 2017

HOW TECHNOLOGY CAN IMPROVE GROWTH IN MENA

Sponsored by the IMF's Middle East and Central Asia Department

Technology is radically changing how societies interact and adapt. As MENA countries seek new engines of growth amid lower oil prices and persistent conflicts in parts of the region, the technology revolution could help transform their economies. But technology is not a silver bullet. It brings opportunities for some while others may lose. This seminar examines how new technologies might affect the economic well-being of MENA citizens—and what policymakers can do to maximize the benefits.



Behar, Alberto. 2013.

[**"The Endogenous Skill Bias of Technical Change and Inequality in Developing Countries." Working Paper 13/50, International Monetary Fund, Washington, DC.**](#)

This paper draws on existing empirical literature and an original theoretical model to argue that globalization and skill supply affect the extent to which technology adoption in developing countries favors skilled workers. Developing countries are experiencing technical change that is skill-biased because skill-biased technologies are becoming relatively cheaper. Increased skill supply further biases technical change in favor of skilled labor. Free trade induces technology that favors skilled workers in skill-abundant developing countries and that favors unskilled workers in skill-scarce developing countries, and therefore amplifies the predicted wage effects of trade liberalization. These features aid our understanding of the observed rises in inequality within developing countries and the absence of a significant downward effect of expanded educational attainment on skill premia. They also help account for the large and differential effects of trade liberalization on inequality. These findings are pertinent for the Middle East and North Africa because of its recent increase in trade openness and remarkable rise in educational attainment.

Choi, Jieun. 2017.

[**"'Create' or 'Buy': Internal vs. External Sources of Innovation and Firm Productivity." Policy Research Working Paper 8121, World Bank Group, Washington, DC.**](#)

The role of innovation in improving productivity might vary according to a country's relative position in technology advancement. Frontier countries might benefit more from policies that promote firms' internal innovation (create), while follower countries would gain more from policies favoring the adoption of existing technologies through innovation outsourcing (buy). However, in many countries, the government policies to promote innovation narrowly focus on "creating," regardless of considerations of the level of a country's technological advancement. This paper investigates the effect of different sources of innovation on output via productivity with representative manufacturing firms in Tunisia from 1997 to 2007. It finds that "buying" has a positive effect on productivity whereas "creating" does not, which might imply that Tunisian firms do not invest sufficiently in "creating," or that "creating" is more difficult for Tunisian firms because they might be too far from the technology frontier. Meanwhile, there is no synergy from using both sources of innovation simultaneously—finding that counters literature suggesting that "creating" could enhance firms' absorptive capacity. The paper considers the possibility that "creating" and "buying" substitute for each other in Tunisia, where resources are limited, assuming the effect of innovation is not linear or requires a certain amount of investment (threshold) to positively affect productivity. The estimation result using the Tobit model supports this assumption. The findings suggest that innovation policy in

Tunisia should emphasize adoption and adaptation, rather than creation and innovation. To encourage firms' "buying," the government can promote exports and workers' skills, whereas incentives that encourage firms to hire more technicians or to acquire foreign investment might not be efficient ways to encourage "buying." Moreover, the fact that there is a minimum requirement (threshold) for innovation investment suggests that policies that aim to reduce this threshold or support firms around this threshold could catalyze the innovation investment.

Cirera, Xavier, and Leonard Sabetti. 2016.

[**"The Effects of Innovation on Employment in Developing Countries: Evidence from Enterprise Surveys." Policy Research Working Paper 7775, World Bank Group, Washington, DC.**](#)

While existing evidence in advanced economies suggests a possible role for technological innovation in job creation, its role in developing countries remains largely undocumented. This paper sheds light on the direct impact of technological as well as organizational innovation on firm level employment growth based on the theoretical model of Harrison, Jaumandreu, Mairesse, and Peters (2014) using a sample of over 15,000 firms in Africa, South Asia, Middle East and North-Africa and Eastern Europe and Central Asia. The results suggest that new sales associated with product innovations tend to be produced with just as much or higher levels of labor intensity. The effect is largest in lower income countries and the African region, where firms are further away from the technological frontier. More importantly, process innovations that involve automation of production do not have a short-term negative impact on firm employment. However, there is some evidence of a negative effect of automation on employment that manifests in increases in efficiency that reduce the elasticity of new sales to employment. Overall, these results are qualitatively similar to previous findings in advanced economies and highlight a positive direct role of innovation on the quantity of employment but at a decreasing rate as firms' transition to the technological frontier.

Ezzat, Riham Ahmed. 2015.

[**"Paving the Way for Better Telecom Performance: Evidence from the Telecommunication Sector in MENA Countries." Review of Network Economics 14 \(3\): 157–199.**](#)

Since the 1980s, developing countries started to adopt telecom reforms due to pressures from international institutions. However, Middle East and North African (MENA) countries lagged in adopting such reforms. Even after introducing telecom reforms in MENA region beginning in 1995, not all countries became better off in terms of various performance indicators. Therefore, this paper empirically assesses the effects of regulation, privatization and liberalization reforms, as well as their simultaneous presences, on the sector performance in the telecommunication sector using a sample of 17 MENA countries for the period 1995–2010. The authors assume that different

reforms are affected by institutional, political and economic determinants with respect to the level of democracy, the legal origin, the natural resources rents per country and the year of independence from colonization. They use IV-2SLS (Instrumental Variable Two-Stage Least Squares) estimation to analyze the effect of different reforms on telecom performance in terms of access, productivity and affordability in the fixed and the mobile sector. The authors find that privatization of the main incumbent operator and fixed-line market liberalization affect the sector performance negatively in terms of fixed access and affordability. Moreover, they find that the simultaneous presence of an independent regulator and a privatized incumbent helps to eliminate drawbacks on the sector performance resulting from privatization. However, the simultaneous presences of the other reforms in terms of regulation-competition and privatization-fixed competition do not help to improve the sector performance.

Gelvanovska, Natalija, Michel Rogy, and Carlo Maria Rossotto. 2014.

[**Broadband Networks in the Middle East and North Africa: Accelerating High-Speed Internet Access.**](#) Washington, DC: World Bank.

Just as the steam engine was the driving force behind the Industrial Revolution, broadband Internet is today seen as critical to the transition to knowledge-intensive economies across the world. As a general-purpose technology, broadband Internet is considered as a fundamental driver of economic growth and social development, releasing the innovative potential and energy of previously disenfranchised members of the population. Many of the countries in the Middle East and North Africa region (MENA) now recognize that broadband Internet is crucial to their efforts to reduce poverty and create job opportunities, especially for their young populations and for women. The report re-emphasizes the important contribution that broadband Internet can make and assesses the status of existing infrastructure in at least 18 MENA countries. While there is significant potential across the region, however, the take-up of broadband Internet has been slow, and the price of broadband service is high in many countries. In large part, this stems from market structures that, too often, reflect the past when telecommunications were treated as a monopoly utility service. The report finds that there are gaps in infrastructure regionally with no connectivity between neighboring countries in some cases. Similarly, there are gaps within countries exacerbating the (digital) divide between rural and urban areas. The report examines the regulatory and market bottlenecks that are hampering the growth of the Internet in these and other MENA countries: the five North African countries (Algeria, Egypt, Morocco, Libya, Tunisia); the six Mashreq countries (the Islamic Republic of Iran, Iraq, Jordan, Lebanon, Syria, and the West Bank and Gaza economy); the six Gulf countries (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, the United Arab Emirates); and Djibouti and the Republic of Yemen. The report provides policy and regulatory options for increasing effective use of existing

fixed and mobile infrastructure as well as alternative infrastructure networks such as power grids and railroads. It explains the benefits of effective cross-sector infrastructure construction frameworks, highlighting the need to adjust market structures to foster competitive behavior among service providers to bring down prices and stimulate the demand for value-added services to drive future broadband development.

International Monetary Fund. 2016.

[**"Smart Technology Takes Flight." *Finance & Development* 53 \(3\): 6–30.**](#)

"Smart Technology Takes Flight" focuses on how technology is driving growth and examines the power of smart machines and artificial intelligence to transform economic life. In the lead article, Google Chief Economist Hal Varian looks at transmission channels." As with drive-through tellers, ever-more-powerful technology allows us to streamline, replacing less efficient practices (the drive-through teller) with more efficient ones (smartphone deposits). Other articles in the cover package chronicle technology's power to transform: Sanjiv Ranjan Das examines big data's influence on economics and finance; Aditya Narain documents the rise of a new breed of hybrid financial technology—fintech—firms; and Sharmini Coorey touts distance learning for better policymaking. The contributors also look at potential downsides. Andrew Berg, Edward Buffie, and Felipe Zanna imagine a future economy dependent on smart machines—or robots. Output and productivity go up, but so does inequality—not a result the authors cheer. And Chris Wellisz probes a dark side—cybercrime and cybertheft—that routinely grabs headlines and reminds us of technology's capacity to raise the bar on mayhem.

Mnif, Sirine. 2016.

[**"Skill Biased Technological Changes: Case of the MENA Region." *Theoretical and Applied Economics* 23 \(3\): 339–350.**](#)

This study looks at the relationship between inequality and technological changes. Specifically, the authors focus on the transmission mechanisms by which technological innovations affect the inequality in access to employment. The objective of this article is to determine the effects of the diffusion of innovations on the demand for skilled and non-skilled labor. It focuses on the concept of technological bias and the role of inequality between skilled and unskilled workers. The empirical validation of this work is based on the technique of dynamic Panel. An estimate by the method of Arellano and Bond seems more relevant. Actually, there is a positive relationship between innovations and the demand for skilled labor but a negative relationship for unskilled labor. This result is confirmed in the sample of countries.

Organisation For Economic Co-operation and Development. 2017.

[“Benchmarking Digital Government Strategies in MENA Countries.” OECD Digital Government Studies, Organisation for Economic Co-operation and Development, Paris.](#)

This report benchmarks digital government strategies in MENA countries against OECD standards and best practices. Using the OECD Recommendation of the Council on Digital Government Strategies as analytical framework, the report provides an in-depth look at the efforts made by Egypt, Jordan, Lebanon, Morocco, Tunisia and the United Arab Emirates to use digital technologies strategically to support broader policy objectives. New technologies can help foster economic value creation, make institutions more inclusive, improve competitiveness and promote effective decision-making in the public sector. This report also assesses the use of information and communication technologies to strengthen trust in government through greater openness and engagement, and suggests how MENA countries can better co-ordinate and steer the digital transformation of the public sector.

Organisation For Economic Co-operation and Development. 2016.

[“Strengthening Governance and Competitiveness in the MENA Region for Stronger and More Inclusive Growth.” Better Policies Series, OECD, Paris.](#)

The MENA region registered relatively dynamic economic growth and investment rates during the first decade of the century, even during the global economic and financial crisis. This was helped by important reforms by many governments to increase economic openness, diversification, private sector development and institutional reform. The participation of Tunisia and Jordan in the Open Government Partnership, the massive investment in infrastructure by Morocco and Egypt to increase connectivity and improve participation in global trade, and the efforts of the United Arab Emirates to diversify its economy demonstrate the great potential of the region to achieve progress. However, recent political instability and security threats have considerably slowed economic prospects. Reforms have not succeeded in tackling deeper structural challenges, such as corruption, unemployment, uneven development and unequal opportunities, especially for disadvantaged regions, women and youth. Appropriate policy responses are needed to regain stability and lay the foundations for a more open economy and a more inclusive development model. While the MENA region is profoundly heterogeneous, there are significant common economic and institutional trends that support the need for more concerted action to exploit the immense potential of the region and ensure its fruitful integration into the global economy.

Sassi, Seifallah, and Mohamed Goaid. 2013.

[“Financial Development, ICT Diffusion and Economic Growth: Lessons from MENA Region.” Telecommunications Policy 37 \(4–5\): 252–261.](#)

This paper aims to test jointly two economic puzzles: the effect of financial development and information and communication technology (ICT) on economic growth. Theories predict a positive effect of financial development and ICT on growth but empirical studies on these relationships produced mixed results. Further, the authors investigate the interaction between financial development and ICT Diffusion to test whether the impact of financial development on growth is strengthened by better ICT infrastructure. This paper assesses empirically these relationships in some MENA countries. The empirical study is based on estimation of a dynamic panel model with system GMM estimators. There are three main findings. First, the empirical results join empirical literature that find a negative direct effect of financial development on economic growth. This ambiguous relationship may be linked to many phenomena but there are not yet clear explanations of this puzzle. Second, the estimates reveal a positive and significant direct effect of ICT proxies on economic growth. This implies that MENA countries need to reinforce their ICT policies and improve using of new Information and Communication Technology. Finally, the interaction between ICT penetration and financial development is found positive and significant in the growth regression. This implies that economies in Mena region can benefit from financial development only once a threshold of ICT development is reached.

Schroeder, Christopher. 2013.

[Startup Rising: The Entrepreneurial Revolution Remaking the Middle East.](#) New York, NY: St. Martin's Press.

Despite the world's elation at the Arab Spring, shockingly little has changed politically in the Middle East; even frontliners Egypt and Tunisia continue to suffer repression, fixed elections, and bombings, while Syria descends into civil war. But in the midst of it all, a quieter revolution has begun to emerge, one that might ultimately do more to change the face of the region: entrepreneurship. As a seasoned angel investor in emerging markets, Christopher M. Schroeder was curious but skeptical about the future of investing in the Arab world. Travelling to Dubai, Cairo, Amman, Beirut, Istanbul, and even Damascus, he saw thousands of talented, successful, and intrepid entrepreneurs, all willing to face cultural, legal, and societal impediments inherent to their worlds. Equally important, he saw major private equity firms, venture capitalists, and tech companies like Google, Intel, Cisco, Yahoo, LinkedIn, and PayPal making significant bets, despite the uncertainty in the region. With *Startup Rising*, he marries his own observations with the predictions of these tech giants to offer a surprising and timely look at the second stealth revolution in the Middle East—one that promises to reinvent it as a center of innovation and progress.

World Bank. 2013.***Transforming Arab Economies: Traveling Knowledge and Innovation Road, Overview.* Washington, DC: World Bank.**

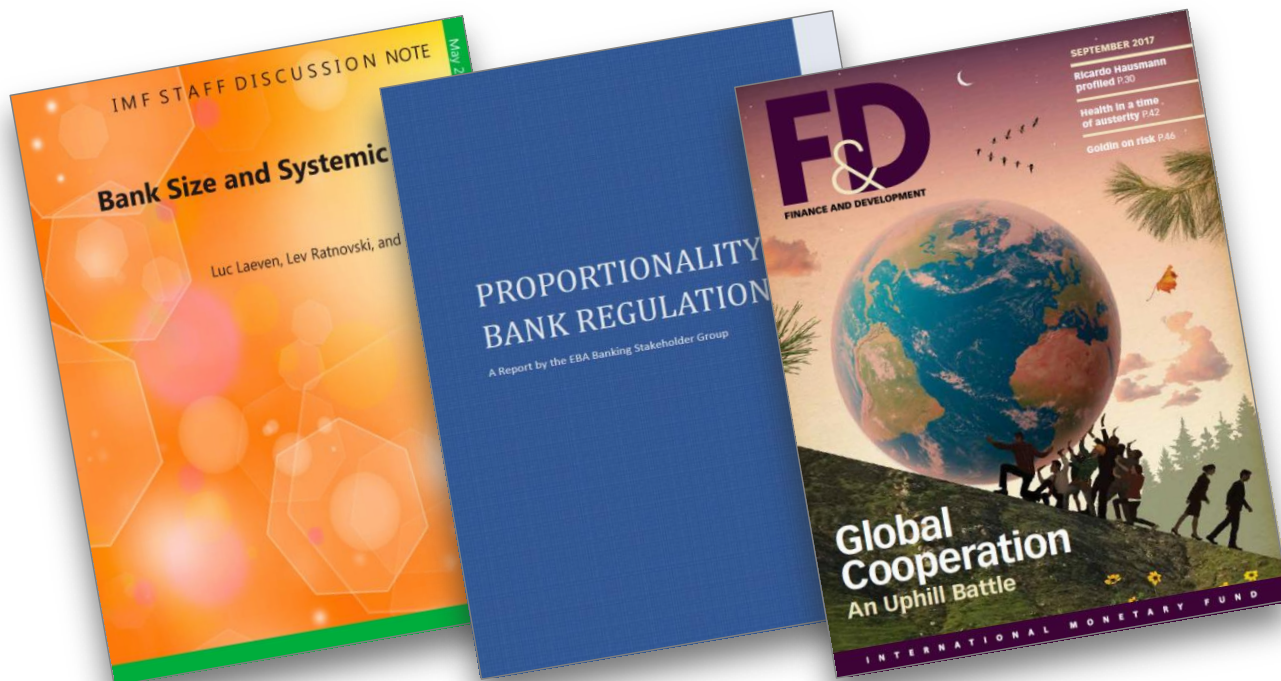
Over the past decade, some countries of the Middle East and North Africa region have spurred economic growth and improved their global competitiveness by taking the first steps in the direction of the knowledge economy. The World Bank Group focuses on Arab societies that deepen their commitment to reforms in four key policy areas: developing more open and entrepreneurial economies, preparing a better-educated and skilled population, improving capabilities for innovation and research, and expanding information and communication technologies. The success of a knowledge-economy strategy depends on coordinated progress on all four fronts, with bold approaches tailored to each country's challenges and opportunities. This report includes chapters organized into three main parts. Part 1 presents the rationale and approach for the transition to the knowledge- and innovation-driven economy. Part 2 describes the policies to be implemented in key areas of the knowledge economy: governance, education, innovation, and information and communication technology. Part 3 discusses economic diversification initiatives that can help countries make the most of their knowledge-economy investments. The three annexes to this report review the literature on the relationship between the knowledge economy and job creation in the Middle East and North Africa region, provide insights on a series of country experiences from across the world in developing knowledge-based development strategies, and survey knowledge-economy issues in several Arab countries and highlight policy initiatives that are adapted to their specific country circumstances.

SATURDAY, October 14, 2017

SMALL IS BEAUTIFUL – REGULATORY APPROACHES FOR NON-SYSTEMIC BANKS

Sponsored by the IMF's Monetary and Capital Markets Department

Small banks play a vital role in providing credit and expanding financial inclusion. While these banks taken individually are not systemic, they must contend with an increasingly complex and costly regulatory environment primarily aimed at strengthening the oversight of systemic banks. How can small banks deal with these challenges, and how can a more proportionate approach to regulation of small banks be applied to align more closely with their size and business models?



Adrian, Tobias, and Aditya Narain. 2017.

"Safe and Sound: International Financial Regulators Help Ensure the Safety and Soundness of Diverse Financial Systems" *Finance & Development* 54 (3): 14–17.

The 2008 financial crisis gave urgency to the multilateral effort to create a safer and stronger global financial system. Enhanced regulatory standards have made large international banks more resilient by requiring them to have more loss-absorbing capacity—more capital—and more cash-like assets to meet financial obligations—more liquidity. Because they focus on internationally active and systemically important institutions, the suitability of some regulatory reforms for less sophisticated financial systems, or even for less systemic institutions in the more advanced economies, has been questioned. This critique has led to vigorous discussions about the need for proportionality in the application of financial regulation—that is, the need to ensure that the standards are suitable to the financial system and/or the financial institution.

The Banking Stockholder Group (BSG) of the European Banking Authority (EBA). 2015.

***Proportionality in Bank Regulation*. London: European Banking Authority.**

This report by the BSG outlines the Principle of Proportionality from both a legal and economic perspective. Proportionality is related to balancing costs and benefits of regulation: if regulation is not proportionate in relation to its objectives, the cost-benefit calculation is likely to be worsened. Furthermore, it is important to take into account not only both the costs and benefits of each regulation independently, but also the cumulative costs, benefits and impact of the totality of regulation. The complexity of regulation and its application can, in some cases, result in excessive costs of compliance. Several recommendations, which are designed to achieve a better compliance with the Principle of Proportionality in banking and the financial industry more generally, are made throughout the report.

Carvalho, Ana Paula Castro, Stefan Hohl, Roland Raskopf, and Sabrina Ruhnau. 2017.

"Proportionality in Banking Regulation: A Cross-Country Comparison." *FSI Insights on Policy Implementation* 1, Bank for International Settlements, Basel.

The regulatory response to the 2007–09 international financial crisis resulted in a more robust but also more complex regulatory framework. This has triggered discussions on the principle of "proportionality"—that is, on how best to tailor regulatory requirements to non-internationally active banks, especially smaller and less complex ones. This note compares the proportionality approaches that have already been applied, or are planned, in six jurisdictions: Brazil, the European Union, Hong Kong SAR, Japan, Switzerland and the United States. These

approaches differ considerably, in terms of criteria and the thresholds used to decide which banks are subject to a specific set of rules, and in terms of the regulatory standards that are subject to a proportional implementation. The "proportionality strategy" should acknowledge the limits posed by other relevant policy objectives. In particular, regulators must weigh the implications for financial stability and for the domestic competitive environment. Policy choices must face complex trade-offs in this respect. It would seem reasonable to aim for a proportional compliance and reporting burden for smaller and less complex banks but without jeopardizing their minimum desired solvency and liquidity. In other words, proportionality should entail rules that are simpler but not necessarily less stringent.

Dermine, Jean, and Dirk Schoenmaker. 2010.

"In Banking, Is Small Beautiful?" *Financial Markets, Institutions & Instruments* 19 (1): 1–19.

The state-led resolution of the 2007–09 financial crisis has proven to be costly. Calls are being heard in Belgium, the Netherlands and Switzerland to cap the size of domestic banks. Is small beautiful? In this policy paper, the authors first match bailing out cost data to the relative size of banks for a sample of 14 countries and 29 banks. An important observation is that some countries with relatively small banks faced large bailout cost when correlated systemic risk affected many banks. Secondly, the authors call to the attention that capping the size of banks can have an unintended effect: a lack of credit risk diversification. Risk diversification is needed to reduce the costs of financial distress, which are quite significant in the banking industry. If reducing public bail out costs is the right objective, capping the size of banks is not the best tool. So as to keep large banks that provide highly skilled employment opportunities in a services economy, the authors discuss four policy options that help to ensure financial stability: independence and accountability of bank supervisors, prompt corrective action mechanisms, burden sharing across countries, and an end to the too-big-to-fail doctrine.

Dombret, Andreas. 2017.

"Basel Should Rethink Proportionality in Banking Regulation." *The Banker*, February 1.

Wherever bank supervisors go these days, they hear the same two concerns: first, that the regulatory burden of post-crisis reforms has become far too heavy for banks to be profitable; second, that the pending Basel III reforms will make these burdens even heavier. The Basel standards are very welcome when it comes to supervising large, significant financial institutions. But a key question is whether such standards represent a one-size-fits-all approach, and this has become even more important, as the complexity of regulations has increased so much in the context of post-crisis reforms.

Dombret, Andreas. 2017.

[“Heading towards a ‘Small Banking Box’ Which Business Model Needs What Kind of Regulation?” Presentation at the Bavarian Savings Bank Conference, Erlangen, June 29.](#)

The regulatory reforms implemented in the wake of the financial crisis are a major accomplishment—it would be a serious mistake and go against the public interest to undermine them. However, the areas in which regulation is disproportionate for small institutions need to be systematically examined. The small banking box represents a highly promising solution to the issue of establishing greater proportionality. Anyone who wants to preserve the diversity of the banking landscape ought to have the courage to graduate regulation—at least to a certain extent.

Greenwood, Robin, Samuel G. Hanson, Jeremy Stein, and Adi Sunderam. 2017.

[“The Financial Regulatory Reform Agenda in 2017.” Working Paper 2017–09, Harvard Business School, Cambridge, MA.](#)

The paper takes stock of the post-crisis financial regulatory reform agenda. It highlights and summarizes areas of clear progress, where post-crisis reforms should either be maintained or built upon. The paper then identifies several areas where the new regulations could be streamlined or rolled back in an effort to reduce the burden on the financial sector, particularly on smaller banks.

Laeven, Luc, Lev Ratnovski, and Hui Tong. 2014.

[“Bank Size and Systemic Risk.” Staff Discussion Note 14/4, International Monetary Fund, Washington, DC.](#)

The Staff Discussion Note (SDN) documents the evolution of bank size and activities over the past 20 years. It discusses whether this evolution can be explained by economies of scale or “too big to fail” subsidies. The paper then presents evidence on the extent to which bank size and market-based activities contribute to systemic risk. The paper concludes with policy messages in the area of capital regulation and activity restrictions to reduce the systemic risk posed by large banks. The analysis of the paper complements earlier Fund work, including SDN 13/04 and the recent GFSR chapter on “too big to fail” subsidies, and its policy message is in line with this earlier work.

Miklaszewska, Ewa. 2017.

[Institutional Diversity in Banking: Small Country, Small Bank Perspectives. Switzerland, Cham: Springer International Publishing.](#)

The global financial crisis led to an enormous increase in interest in the structure of banking systems around the world. There is widespread concern that the sheer size of banks and the concentration of the industry present threats to the world’s financial system. Since the crisis, an increasing regulatory burden has been imposed on all banks regardless of size or organization. While on one hand, the robust business models of alternative banking structures have been praised, these organizations have to comply with regulatory requirements that are often designed with large, systemically important financial institutions (SIFIs) in mind. The chapters in the book emphasize the impact of the financial crisis on small banks and convey a similar message: that the small banks, mostly the cooperative sector, survived the crisis quite well, but have been directly and indirectly discriminated against in post-crisis restructuring; hence they face many operational and strategic challenges today.

Yellen, Janet. 2017.

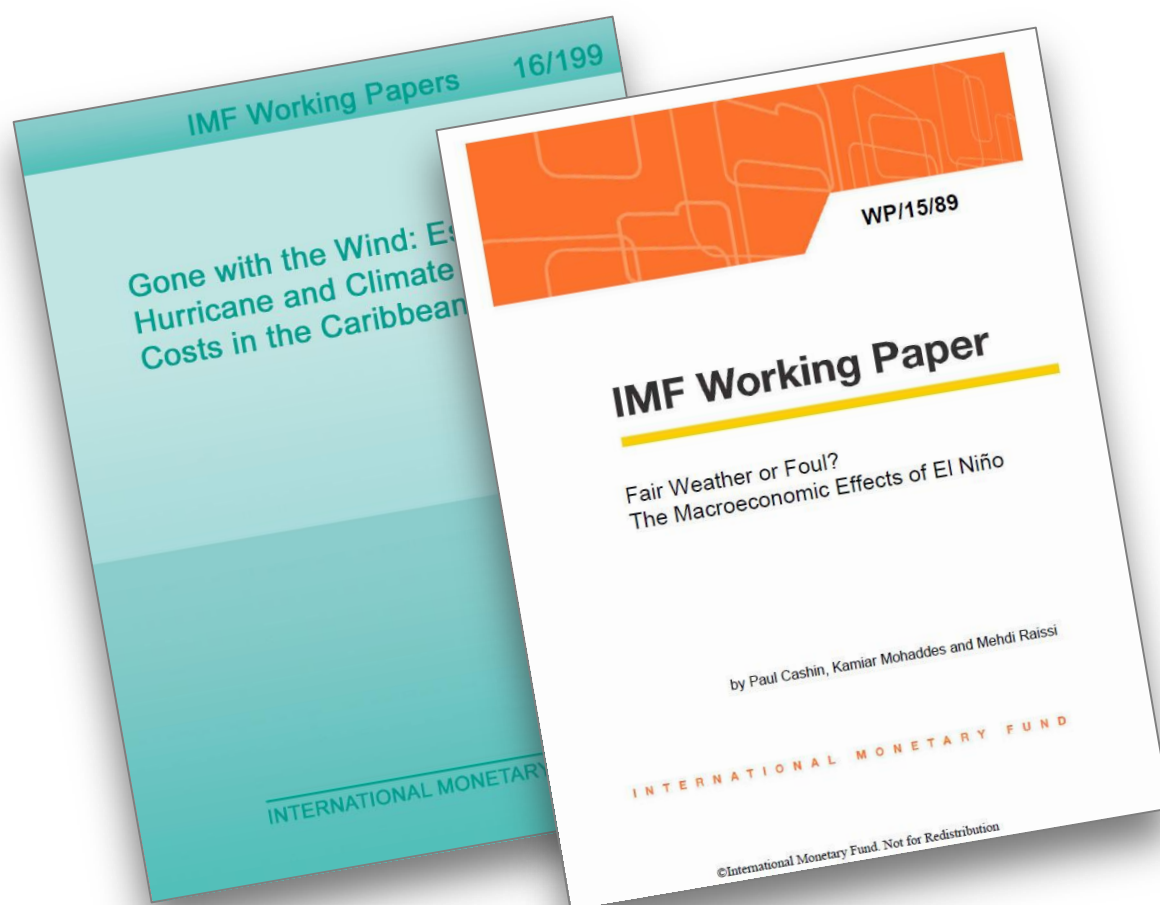
[“Financial Stability a Decade after the Onset of the Crisis.” Speech at a Symposium “Fostering a Dynamic Global Recovery,” Kansas City, August 25.](#)

Because of the reforms that strengthened our financial system, and with support from monetary and other policies, credit is available on good terms, and lending has advanced broadly in line with economic activity in recent years, contributing to today’s strong economy. The evidence shows that reforms since the crisis have made the financial system substantially safer. Enhanced resilience supports the ability of banks and other financial institutions to lend, thereby supporting economic growth through good times and bad. Small business formation is critical to economic dynamism and growth. Smaller firms rely disproportionately on lending from smaller banks, and the Federal Reserve has been taking steps and examining additional steps to reduce unnecessary complexity in regulations affecting smaller banks.

PER JACOBSSON FOUNDATION: ECONOMIC AND FINANCIAL ISSUES RELATED TO THE IMPACT OF CLIMATE CHANGE

Sponsored by the IMF's Communications Department

At its most recent regular Annual Meetings event, Directors of the Per Jacobsson Foundation agreed to host a panel discussion on green financing and related issues at the 2017 IMF/World Bank Group Annual Meetings. The discussion will focus on the key economic and financial issues related to the impact of climate change, including systemic financial stability risks from climate change, regulatory perspectives on green financing with industry perspectives, and measuring the social cost of carbon.



Acevedo, Sebastian. 2016.

["Gone with the Wind: Estimating Hurricane and Climate Change Costs in the Caribbean."](#) Working Paper 16/199, International Monetary Fund, Washington, DC.

This paper studies the economic costs of hurricanes in the Caribbean by constructing a novel dataset that combines a detailed record of tropical cyclones' characteristics with reported damages. The author estimates the relation between hurricane wind speeds and damages in the Caribbean; finding that the elasticity of damages to GDP ratio with respect to maximum wind speeds is three in the case of landfalls. The data show that hurricane damages are considerably underreported, particularly in the 1950s and 1960s, with average damages potentially being three times as large as the reported average of 1.6 percent of GDP per year. The author documents and shows that hurricanes that do not make landfall also have considerable negative impacts on the Caribbean economies. Finally, the author estimates that the average annual hurricane damages in the Caribbean will increase between 22 and 77 percent by the year 2100, in a global warming scenario of high CO₂ concentrations and high global temperatures.

Bonen, Anthony, Prakash Loungani, Willi Semmler, and Sebastian Koch. 2016.

["Investing to Mitigate and Adapt to Climate Change: A Framework Model."](#) Working Paper 16/164, International Monetary Fund, Washington, DC.

The authors propose a macroeconomic model to assess optimal public policy decisions in the face of competing funding demands for climate change action versus traditional welfare-enhancing capital investment. How to properly delineate the costs and benefits of traditional versus adaption-focused development remains an open question. The paper places particular emphasis on the changing level of risk and vulnerabilities faced by developing countries as they allocate investment toward growth strategies, adapting to climate change and emissions mitigation.

Cabazon, Ezequiel, Leni Hunter, Patrizia Tumbarello, Kazuaki Washimi, and Yiqun Wu. 2015.

["Enhancing Macroeconomic Resilience to Natural Disasters and Climate Change in the Small States of the Pacific."](#) Working Paper 15/125, International Monetary Fund, Washington, DC.

Natural disasters and climate change are interrelated macro-critical issues affecting all Pacific small states to varying degrees. In addition to their devastating human costs, these events damage growth prospects and worsen countries' fiscal positions. This is the first cross-country IMF study assessing the impact of natural disasters on growth in the Pacific islands as a group. A panel VAR analysis suggests that, for damage and

losses equivalent to 1 percent of GDP, growth drops by 0.7 percentage point in the year of the disaster. The authors also find that, during 1980–2014, trend growth was 0.7 percentage point lower than it would have been without natural disasters. The paper also discusses a multi-pillar framework to enhance resilience to natural disasters at the national, regional, and multilateral levels and the importance of enhancing countries' risk-management capacities. It highlights how this approach can provide a more strategic and less ad hoc framework for strengthening both ex ante and ex post resilience and what role the IMF can play.

Cashin, Paul, Kamiar Mohaddes, and Mehdi Raissi. 2015.

["Fair Weather or Foul? The Macroeconomic Effects of El Niño."](#) Working Paper 15/89, International Monetary Fund, Washington, DC.

This paper employs a dynamic multi-country framework to analyze the international macroeconomic transmission of El Niño weather shocks. This framework comprises 21 country/region-specific models, estimated over the period 1979Q2 to 2013Q1, and accounts for not only direct exposures of countries to El Niño shocks but also indirect effects through third markets. The authors contribute to the climate-macroeconomy literature by exploiting exogenous variation in El Niño weather events over time, and their impact on different regions cross-sectionally, to causatively identify the effects of El Niño shocks on growth, inflation, energy and non-fuel commodity prices. The results show that there are considerable heterogeneities in the responses of different countries to El Niño shocks. While Australia, Chile, Indonesia, India, Japan, New Zealand and South Africa face a short-lived fall in economic activity in response to an El Niño shock, for other countries (including the United States and European region), an El Niño occurrence has a growth-enhancing effect. Furthermore, most countries in the sample experience short-term inflationary pressures as both energy and non-fuel commodity prices increase. Given these findings, macroeconomic policy formulation should take into consideration the Niño weather episodes.

Delbeke, Jos, and Peter Vis, eds. 2016.

[EU Climate Policy Explained.](#) London: Routledge.

The objective of the book is to explain the EU's climate policies in an accessible way, to demonstrate the step-by-step approach that has been used to develop these policies, and the ways in which they have been tested and further improved in the light of experience. The book shows that there is no single policy instrument that can bring down greenhouse gas emissions, but the challenge has been to put a jigsaw of policy instruments together that is coherent, delivers emissions reductions, and is cost-effective. The book differs from existing books by the fact it covers the EU's emissions trading system, the energy sector and other economic sectors, including their development in the context of international climate policy.

Farid, Mai, Michael Keen, Michael G. Papaioannou, Ian W.H. Parry, Catherine A. Pattillo, and Anna Ter-Martirosyan. 2016.

[“After Paris: Fiscal, Macroeconomic and Financial Implications of Global Climate Change.” Staff Discussion Notes 16/01, International Monetary Fund, Washington, DC.](#)

This paper discusses the implications of climate change for fiscal, financial, and macroeconomic policies. Most pressing is the use of carbon taxes (or equivalent trading systems) to implement the emissions mitigation pledges submitted by 186 countries for the December 2015 Paris Agreement while providing revenue for lowering other taxes or debt. Carbon pricing in developing countries would effectively mobilize climate finance, and carbon price floor arrangements are a promising way to coordinate policies internationally. Targeted fiscal measures that are tailored to national circumstances and robust across climate scenarios are needed to counter private sector under-investment in climate adaptation. And increased disclosure of carbon footprints, stress testing of asset values, and greater proliferation of hedging instruments, will facilitate low-emission investments and climate risk diversification through financial markets.

Hart, Melanie, Pete Ogden, and Kelly Sims Gallagher. 2016.

[Green Finance: The Next Frontier for US-China Climate Cooperation.](#) Washington, DC: Center for American Progress.

When it comes to the climate arena, the United States and China are enjoying a wave of international goodwill resulting from the role each played in rallying other nations to achieve the iconic Paris climate agreement. In November 2014, China and the United States stood shoulder to shoulder as the first two countries to announce their post-2020 national greenhouse gas emission reduction targets and remained constructive partners on the path to reaching a historic outcome in Paris this past December. Now, as the United States and China put new policies in place to achieve their national targets and fulfill their domestic and international commitments, both countries confront a common challenge: mobilizing sufficient investment at home to meet domestic energy, climate, and environmental protection goals, while at the same time steering outbound investments toward sustainable projects in other nations that support, rather than undermine, those nations’ climate targets. In this Center for American Progress issue brief, the authors consider the key domestic and international policies that were recently—or are currently being—put in place by China and the United States to achieve their respective climate goals. In addition, the authors evaluate the implications of these policies—both positive and negative—for green investment domestically and globally. Finally, they provide recommendations for enhanced cooperation in this space.

International Monetary Fund. 2017.

[“Climate, Environment, and the IMF.” Factsheet, International Monetary Fund, Washington, DC.](#)

Stabilizing atmospheric concentrations of greenhouse gases will require a radical transformation of the global energy system over coming decades. Fiscal instruments (carbon taxes or similar) are the most effective policies for reflecting environmental costs in energy prices and promoting development of cleaner technologies, while also providing a valuable source of revenue (including, not least, for lowering other tax burdens). Fiscal policies also have a key role to play in addressing other challenges, like building resilience to climate change and reducing local air pollution and urban congestion. Getting energy prices right has large fiscal, environmental, and health benefits at the national level, and need not wait for international action. Low energy prices, fiscal pressures, and emissions mitigation pledges made by 197 parties to the 2015 Paris Agreement create an opportune time for reform.

International Monetary Fund. 2015.

[“Powering the Planet: The Quest for Sustainable Energy.” Finance & Development 52 \(4\): 1–57.](#)

The question fuels intense debate—one that has become increasingly polarized and that frequently puts growth and sustainable energy in opposition. But are the two—growth and a more sustainable mix of energy sources—really enemies? Can a more benign mix of energy sources and technology bring power to the 1.3 billion people who don’t have it?

These questions, along with December’s UN climate summit in Paris, provided the inspiration for this issue of F&D. The answers are complex but reassuring. Nicholas Stern of the London School of Economics argues that the twin challenges of fighting poverty and climate change are not mutually exclusive. And the International Labour Organization’s Peter Poschen says we need not choose between green and jobs. Continuing with the energy theme, IMF economist Ian Parry looks at the practical problems of setting a price for carbon that reflects its true costs. And F&D analyzes the four major declines in oil prices in the past 30 years and finds an eerie similarity today to the prolonged slump that began in 1986.

Morgado, Naeeda Crishna, and Bérénice Lasfargues. 2017.

[“Engaging the Private Sector for Green Growth and Climate Action: An Overview of Development Co-Operation Efforts.” Working Paper 34, Organisation for Economic Co-operation and Development, Paris.](#)

The private sector plays an important role in supporting green growth in developing countries. As a result, there is increasing emphasis for development co-operation providers to integrate private sector engagement (PSE) approaches into their programs on green growth and climate change. This paper

provides an overview of activities in this area, estimating that 22 percent of climate-related development finance supported PSE activities in 2013. It also presents a stock-taking of efforts to: mobilize private climate investment, promote green private sector development and harness skills and knowledge of private actors. The paper highlights some challenges and lessons learned, such as the need for PSE to target a wider range of environmental issues, the importance of investing in integrated approaches to enable the development of pipelines, and the need to align private sector approaches with national contexts. The findings in this paper contribute to the discussion on how development co-operation providers can improve the effectiveness of PSE approaches to promote green growth and climate action, and may be a useful starting point to guide evidence-based policy relevant research.

be badly needed, given historically high debt-to-GDP levels, pressures on social security and medical budgets, and calls to reform taxes on personal and corporate income. This book is about the practicalities of introducing a carbon tax in the United States, set against the broader fiscal context. It consists of thirteen chapters, written by leading experts, covering the full range of issues policymakers would need to understand, such as the revenue potential of a carbon tax, how the tax can be administered, the advantages of carbon taxes over other mitigation instruments and the environmental and macroeconomic impacts of the tax. A carbon tax can work in the United States. This volume shows how, by laying out sound design principles, opportunities for broader policy reforms, and feasible solutions to specific implementation challenges.

Organisation for Economic Co-operation and Development. 2016.

[Green Investment Banks: Scaling up Private Investment in Low-carbon, Climate-resilient Infrastructure. Paris: Organisation for Economic Co-operation and Development.](#)

This report provides the first comprehensive study of publicly capitalized green investment banks (GIBs), analyzing the rationales, mandates, and financing activities of this relatively new category of public financial institution. Based on the experience of over a dozen GIBs and GIB-like entities, the report provides a non-prescriptive stock-taking of the diverse ways in which these public institutions are catalyzing private investment in low-carbon, climate-resilient infrastructure and other green sectors, with a spotlight on energy efficiency projects. The report also provides practical information to policy makers on how green investment banks are being set up, capitalized and staffed.

Parry, Ian, Adele Morris, and Roberton C. Williams III, eds. 2015.

[Implementing a US Carbon Tax: Challenges and Debates. Washington, DC: International Monetary Fund.](#)

Although the future extent and effects of global climate change remain uncertain, the expected damages are not zero, and risks of serious environmental and macroeconomic consequences rise with increasing atmospheric greenhouse gas concentrations. Despite the uncertainties, reducing emissions now makes sense, and a carbon tax is the simplest, most effective, and least costly way to do this. At the same time, a carbon tax would provide substantial new revenues which may

SUNDAY, October 15, 2017

FIGHTING CORRUPTION

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Tackling corruption is vital for sustaining economic stability, promoting inclusive growth, and maintaining security in society and certainty in the market. The IMF plays a key role in shaping more effective and innovative policies to fight corruption, but there is more work to be done. Despite greater efforts to improve the quality of institutions and governance frameworks, corruption remains a challenge for many countries, from advanced economies to developing countries, even if its impact is most acutely felt in the latter. This seminar examines the diverse impacts of corruption and lessons learned from examples where it has been combatted effectively.



Ali, Mohamed, and Seifallah Sassi. 2016.

[“The Corruption-Inflation Nexus: Evidence from Developed and Developing Countries.”](#) *The B.E. Journal of Macroeconomics* 16 (1): 125–144.

This paper analyzes the relationship between corruption and inflation for a sample of 100 developing and developed countries representing five regions (Americas, Europe, Middle East and North Africa, sub-Saharan Africa and Asia Pacific) over the period 2000–12. Various model estimations are carried out using alternative techniques and two indicators of corruption. The findings provide evidence of a significant and positive relationship between all country corruption measures and inflation. Countries with a corrupted environment and bad governance use seigniorage as a source of revenue which induces higher monetary expansion and therefore higher inflation rates. After controlling for money supply, the results suggest that corruption is affecting inflation via other channels. The results show also that the negative effect of corruption on inflation is different across subsample countries. The lack of sound and committed institutions in developing and emerging is a key point in explaining these disparities.

Bardhan, Pranab. 2015.

[“Corruption and Development Policy: Drawing upon the Recent Indian Debate.”](#) *Journal of Public Economic Theory* 17 (4): 472–479.

There is a substantial theoretical literature now on the factors determining the incidence of corruption, suggesting some policies to fight it, but there is not a great deal of empirical evidence on the effectiveness of these policies. This paper is a brief overview, drawing upon some of the salient features of the literature and with several examples from the Indian case where corruption has become a major issue of public debate, to make remarks that may be more generally relevant for policies in developing countries.

d'Agostino, Giorgio, J. Paul Dunne, and Luca Pieroni. 2016.

[“Government Spending, Corruption and Economic Growth.”](#) *World Development* 84, 190–205.

There is considerable debate over the effects of both corruption and government spending on growth, but few studies have considered how the interaction between them might affect economic growth. This paper provides a contribution to the debate, starting with an endogenous growth model and extending it to account for the effects of corruption on components of government spending, namely military and investment spending. It then illustrates the non-negligible indirect effects of corruption on military spending and government investment expenditure using model simulations. The resulting model is then estimated on a comprehensive panel of 106 countries and the results show that the interactions between corruption and investment and corruption and military

spending have strong negative impacts on economic growth. The results also indicate important complementarities between corruption and military spending, suggesting that combating corruption will not only have direct positive effects, but is also likely to have positive indirect effects, through reducing the size of the negative impact of the military burden. They are also found to be robust across different measures of corruption, levels of economic development and groupings of countries. This suggests that policies to reduce corruption, combined with those to reduce military burdens, such as regional security agreements, would have a considerable impact on economic growth.

Fisman, Ray, and Miriam A. Golden. 2017.

[Corruption: What Everyone Needs to Know.](#) Oxford: Oxford University Press.

Corruption regularly makes front page headlines: public officials embezzling government monies, selling public offices, and trading bribes for favors to private companies generate public indignation and calls for reform. In *Corruption: What Everyone Needs to Know*®, renowned scholars Ray Fisman and Miriam A. Golden provide a deeper understanding of why corruption is so damaging politically, socially, and economically. Among the key questions examined are: is corruption the result of perverse economic incentives? Does it stem from differences in culture and tolerance for illicit acts of government officials? Why don't voters throw corrupt politicians out of office? Vivid examples from a wide range of countries and situations shed light on the causes of corruption, and how it can be combated.

Gaspar, Vitor, and Sean Hagan. 2015.

[“Corruption: A Hidden Tax on Growth.”](#) *IMF Blog*, International Monetary Fund, November 5.

International Monetary Fund. 2016.

[“Corruption: Costs and Mitigating Strategies.”](#) Staff Discussion Note 16/05, International Monetary Fund, Washington, DC.

In an environment in which growth and employment prospects in many countries remain subdued and a number of high-profile corruption cases have fueled moral outrage, and amid a growing consensus that corruption can seriously undermine a country's ability to deliver inclusive economic growth in a number of different areas, addressing corruption globally—in both developed and developing countries—has become increasingly urgent. When corruption impairs government functions, it can adversely affect a number of important determinants of economic performance, including macrofinancial stability, investment, human capital accumulation, and total factor productivity. Moreover, when systemic corruption affects virtually all state functions, distrust of government can become so pervasive that it can lead to violence, civil strife, and conflict,

with devastating social and economic implications. This Staff Discussion Note focuses on corruption that arises from the abuse of public office for private gain, whether it manifests itself transactionally (for example, a bribe) or through powerful networks between business and government that effectively result in the privatization of public policy. While designing and implementing an anticorruption strategy requires change on many different levels, the IMF's experience in assisting member countries suggests that several elements need to be given priority: transparency, rule of law, and economic reform policies designed to eliminate excessive regulation.

Kaymak, Turhan, and Eralp Bektas. 2015.

[“Corruption in Emerging Markets: A Multidimensional Study.” *Social Indicators Research* 124 \(3\): 785–805.](#)

The role played by emerging markets in the global economy is well documented. However, these markets' rapid economic development has not always been followed by commensurate advancements in their legal, political, and social institutions, which can lead to higher levels of corruption. Essentially, emerging markets may not possess the necessary governance mechanisms to deal adequately with this problem. As such, this paper uses a number of established indices to measure the relationship between corruption and a myriad of economic, financial, social, and political dimensions. A number of hypotheses linking corruption in emerging markets to these dimensions are developed and subsequently tested. The authors find that market growth rate, market intensity, market receptivity, commercial infrastructure, reduced country risk, and economic freedom are associated with lower levels of corruption in emerging markets. The study adds to the expanding literature on corruption by including variables that have not been tested before, and by focusing on how graft influences emerging markets. The authors conclude with a discussion of policy implications that are related to the findings.

López-Claros, Augusto. 2013.

[“Removing Impediments to Sustainable Economic Development: The Case of Corruption.” *Policy Research Working Papers* 6704, World Bank, Washington, DC.](#)

This paper examines causes and consequences of corruption within the process of economic development. It starts by reviewing some of the factors that, over the past couple of decades, have transformed corruption from a subject on the sidelines of economic research to a central preoccupation of policy makers and donors in many countries. Drawing on a vast treasure trove of experiences and insights accumulated during the postwar period and reflected in a growing body of academic research, the paper analyzes many of the institutional mechanisms that sustain corruption and the impact of corruption on development. This paper argues that many forms of corruption stem from the distributional attributes of the state in its role as the economy's central agent of resource allocation. What is the impact of corruption on public finances and on the

characteristics and performance of the private sector? What distortions does corruption introduce in the allocation of resources and in the relationships among economic agents in the marketplace? The paper also addresses the question of what can be done about corruption and discusses the role of economic policies in developing the right sorts of incentives and institutions to reduce the incidence of corruption. Particular attention is paid to business regulation, subsidies, the budget process, international conventions, and the role of new technologies. The paper concludes with some thoughts on the moral dimensions of corruption.

Montes, G. C., and P. C. Paschoal. 2015.

[“Corruption: What are the Effects on Government Effectiveness? Empirical Evidence Considering Developed and Developing Countries.” *Applied Economics Letters* 23 \(2\): 146–150.](#)

This study analyses the impact of corruption on government effectiveness for a sample of 130 countries. The findings suggest that less-corrupt countries have better quality of public service, better quality in the formulation and adoption of policies and greater credibility and government's commitment to such policies. The findings also suggest that the effect of corruption on government effectiveness is higher in developed countries. Moreover, the estimates also reveal that countries with the most indebted governments and with higher inflation rates have less-efficient governments, and an increase in rule of law represents a good strategy to improve government effectiveness. In turn, regarding developing countries, the findings show that countries with more democratic regimes have a higher degree of government effectiveness.

Mungiu-Pippidi, Alina. 2015.

[The Quest for Good Governance: How Societies Develop Control of Corruption.](#) Cambridge, United Kingdom: Cambridge University Press.

Why do some societies manage to control corruption so that it manifests itself only occasionally, while other societies remain systemically corrupt? This book is about how societies reach that point when integrity becomes the norm and corruption the exception with regard to how public affairs are run and public resources are allocated. It primarily asks what lessons have been learned from historical and contemporary experiences in developing corruption control, which can aid policy-makers and civil societies in steering and expediting this process. Few states now remain without either an anticorruption agency or an Ombudsman, yet no statistical evidence can be found that they actually induce progress. Using both historical and contemporary studies and easy to understand statistics, Alina Mungiu-Pippidi looks at how to diagnose, measure and change governance so that those entrusted with power and authority manage to defend public resources.

Organisation for Economic Co-operation and Development. 2013.

[“Anti-Corruption Reforms in Eastern Europe and Central Asia Progress and Challenges, 2009–2013.”](#) In *Fighting Corruption in Eastern Europe and Central Asia*. Paris: Organisation for Economic Co-operation and Development.

This report identifies progress achieved in the region as well as remaining challenges which require further action by countries. The report analyses three broad areas of anti-corruption work, including anti-corruption policies and institutions, criminalization of corruption and law-enforcement, and measures to prevent corruption in public administration and in the business sector. The analysis is illustrated by examples of good practice from various countries and comparative cross-country data. The report focuses on eight countries in the region which participate in the OECD/ACN initiative known as the Istanbul Anti-Corruption Action Plan which includes Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Ukraine and Uzbekistan. It also presents examples from other countries in the region to give a broader perspective for the analysis. The report covers the period between 2008 and 2012, when the second round of monitoring of Istanbul Action Plan countries was implemented, and is based on the results of this monitoring.

Prime Minister’s Office, United Kingdom. 2016.

[“Against Corruption: A Collection of Essays.”](#) Policy Paper 10, “The Anti-Corruption Summit,” London, May 12.

Rose-Ackerman, Susan, and Bonnie J. Palifka. 2016.

[Corruption and Government: Causes, Consequences, and Reform](#). New York, NY: Cambridge University Press.

The second edition of *Corruption and Government* updates Susan Rose-Ackerman’s 1999 book to address emerging issues and to rethink old questions in light of new data. The book analyzes the research explosion that accompanied the fall of the Berlin Wall, the founding of Transparency International, and the World Bank’s decision to give anti-corruption policy a key place on its agenda. Time has vindicated Rose-Ackerman’s emphasis on institutional reform as the necessary condition for serious progress. The book deals with routine payoffs and with corruption in contracting and privatization. It gives special attention to political corruption and to instruments of accountability. The authors have expanded the treatment of culture as a source of entrenched corruption and added chapters on criminal law, organized crime, and post-conflict societies. The book outlines domestic conditions for reform and discusses international initiatives – including both explicit anti-corruption policies and efforts to constrain money laundering.

Turedi, Salih, and Ali Altiner. 2016.

[“Economic and Political Factors Affecting Corruption in Developing Countries.”](#) *International Journal of Economics and Research* 7 (1): 120–136.

Corruption, which is defined as “the abuse of public power for private gain,” is considered as a global problem faced by all the countries in the world, notwithstanding that it is more common in developing countries that need to fight. The factors affecting corruption have to be defined in order to design policies aiming to control or reduce corruption. Accordingly, the purpose of this study is to estimate economic and political factors affecting corruption in developing countries. In this study, using the fixed effects model with Driscoll-Kraay standard error, the data of 56 countries for the period of 2002–12 is considered. According to the results of the analysis, in terms of economic factors of the countries covered; while the economic growth, economic freedom and trade openness reduce corruption, inflation promotes corruption. Additionally, democracy and political stability are determined as the political factors having a reducing effect on the corruption.

Uberti, Luca J. 2016.

[“Can Institutional Reforms Reduce Corruption? Economic Theory and Patron-Client Politics in Developing Countries.”](#) *Development and Change* 47 (2): 317–345.

The ‘anti-corruption consensus’ of the dominant development paradigm sees corruption as a governance failure and maintains that graft can be reduced or eradicated through appropriate institutional reforms, such as strengthening the judiciary, designing corruption-proof regulatory regimes, and establishing anti-corruption agencies. This article aims to cast doubt on the theoretical rationale of this family of anti-corruption interventions. The neo-classical paradigm that informs the consensus is based on a set of unsatisfactory idealizations, which undermine the explanatory power of mainstream economic models of corruption. Drawing on insights from economic sociology and anthropology, the article develops an account of the relationship between corruption, cultural norms and patron–client politics in developing countries. This account shows that corruption is embedded in socio-cultural structures that are endemic to the process of transition to industrial capitalism—a transition that all developing countries are arguably undergoing, however haltingly. This insight clarifies the theoretical limitations of mainstream corruption economics and provides a framework for constructing more empirically adequate explanations of corruption levels in specific countries.

World Bank. 2017.

[“Combating Corruption.”](#) *World Bank website on Understanding Poverty*, May 11.

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