IMF RESEARCH

BULLETIN

Volume 16, Number 2 June 2015

www.imf.org/researchbulletin

In This Issue

1 Migration: An Attractive Insurance Option in African Countries?

1 Investment in Emerging Markets

6 Q&A: Seven Questions on Islamic Finance

10 IMF Working Papers

13 *IMF Economic Review*

14 Recommended Readings from IMF Publications

15 Staff Discussion Notes

Online Subscriptions

The *IMF Research Bulletin* is available exclusively online. To receive a free e-mail notification when quarterly issues are posted, please subscribe at *www.imf.org/external/cntpst.* Readers may also access the *Bulletin* at any time at *www.imf.org/researchbulletin.*

Research Summaries

Migration: An Attractive Insurance Option in African Countries?

Ahmat Jidoud

Over the last two decades, officially recorded remittances (migrants' transfers) toward African countries have reached substantial amounts. This paper assesses whether these flows help to cushion the impact of macroeconomic shocks in these countries and explores the channels through which these flows affect macroeconomic volatility. The empirical results show that remittances significantly reduce output and consumption volatilities by absorbing a significant amount of GDP shocks, but their effect on consumption fluctuations is less pronounced. A small, open–economy model augmented with remittances shows that the stabilizing effects of remittances are higher in economies where (i) remittances induce no wealth effect on labor supply, and (ii) help with promoting financial development by lessening financial frictions.

There has been widespread empirical work on the impact of remittances on African countries, both from a microeconomic and macroeconomic perspective in recent years. Although significantly underestimated, officially recorded

(continued on page 2)

Investment in Emerging Markets

Nicolas E. Magud and Sebastián Sosa

In our working paper on investment in emerging markets (2015) we document that (i) although private investment growth in emerging markets has decelerated in recent years, it came down from cyclical highs and remains close to precrisis trends; and (ii) investment-to-output ratios generally remain close to or above historical averages. Investment is positively related to expected future profitability, cash flows and debt flows, and negatively associated with leverage. Critically, it is also positively related to (country-specific) commodity export prices and capital inflows. The latter help to relax firms' financial constraints, which tend to be stronger for smaller firms and those less integrated with international financial markets. Lower commodity export prices and expected profitability, a moderation in capital inflows, and an increased leverage account for the bulk of the recent investment deceleration. Looking forward, prospects for a recovery of business investment are not promising.

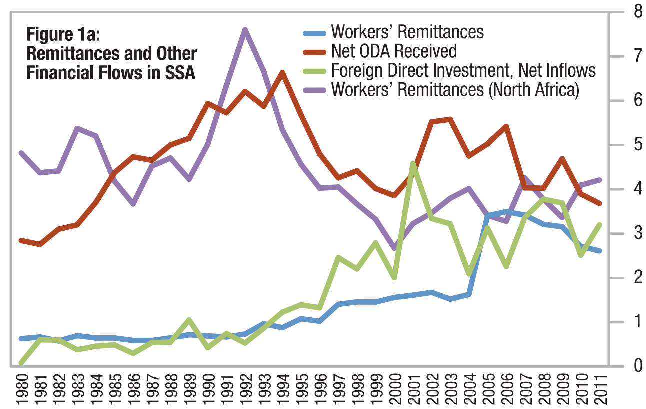
(continued on page 4)

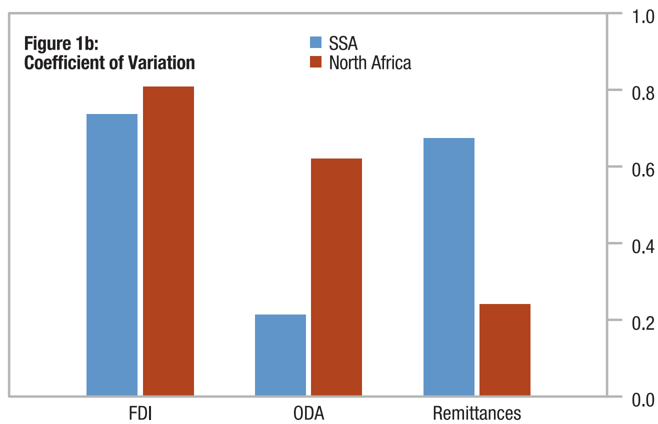
Migration: An Attractive Insurance Option in African Countries?

(continued from page 1)

remittance flows to Africa have increased from $9.1 billion in 1990 to nearly $40 billion in 2010, outweighing other financial flows (see Figure 1a). In addition, remittances tend to be more stable and persistent than other financial flows (see Figure 1b). An extensive empirical literature has recognized the microeconomic benefits of these financial flows, while a growing number of studies have looked at their macroeconomic effects. More precisely, recent research has extensively examined the impact of migrants' transfers on growth (Adam Jr. and Page 2005; Gupta, Pattillo, and Wagh 2009). This research found that both international migration and remittances significantly reduce the level, depth, and severity of poverty in developing countries. Remittances reduce poverty through their positive impact on financial development. Remittances give financially constrained households access to credit markets by collateralizing assets they build using their remittances. Hence, they can contribute to an increase in aggregate investment and savings. Another widely explored topic in this literature is the capacity of remittances to reduce macroeconomic volatility. Remittances are thus viewed as automatic stabilizers which buffer shocks and smooth aggregate fluctuations. This insurance role of remittances and migration hinges on the countercyclicality of these financial flows with respect to recipient countries' fundamentals and their resilience to economic developments within the originating countries.

The present paper fits into the second strand of the literature as it assesses the ability of remittances to stabilize business cycle volatility in a sample of African countries with available relevant data. The paper takes a double approach. First, the paper empirically evaluates the correlation between aggregate fluctuations (output and private consumption volatilities) and the size of remittances as percentage of GDP. From this perspective, our analysis follows the existing work on developing countries; nonetheless, this paper focuses only on African countries. Second, the paper probes the theoretical mechanisms through which the stabilizing or destabilizing effects of remittances spread into the economy. Although the existing literature has brought evidence of the smoothing impact of remittances in recipient countries (Chami, Hakura, and Montiel 2009; Combes and Ebeke 2011, among others), it has been silent about the theoretical mechanisms at work. This paper intends to fill this gap. Understanding these mechanisms is critical for policymakers for designing appropriate policies to effectively manage these financial flows. This theoretical exercise is the main contribution of the paper that most clearly distinguishes the analysis from similar work, in addition to tentative policy conclusions that may be derived.





Source: Author's calculations based on African Development Indicators (2011).

Note: ODA = Official Development Aid.

Do Remittances Help Stabilize Macroeconomic Fluctuations? How Much of Shocks Are Absorbed by Remittances?

In responding to the first question, our working paper follows the existing work in assessing the correlation between business cycle volatility and remittances by estimating the semi-elasticity of volatility (measured by the standard deviation of GDP or consumption) on cross-section data. The sample comprises 27 African countries with yearly data covering 1980–2005 all from the African Development Indicators (2011) from the World Bank. Data are averaged over this period. The model controls for other relevant determinants of volatility identified in the literature such as per capita income, financial development, government size, development aid, and terms of trade volatility. Standard endogeneity tests (Correlation and Nakamura and Nakamura tests) rule out the endogeneity of remittances in the model. The model is estimated using generalized least squares method to account for potential heteroskedasticity in the residuals. The empirical results show that remittances reduce both output and consumption fluctuations. Specifically, an increase in workers' remittances-to-GDP of one percentage point reduces the log of the standard deviation of per real capita GDP growth by 3.2 percent while the volatility of real per capita consumption decreases by two percent. This small stabilizing effect on consumption seems rather counterintuitive, but at least two arguments can be put forward to explain it. First, households' consumption in developing economies encompasses both consumption of durables and non-durables. It might be that remittances actually reduce the consumption instability, but only of the non-durable component of aggregate consumption. If this is the case, the inability to disentangle these two components makes it harder to observe a significant effect on aggregate consumption fluctuations. Second, surveys at microeconomic levels in some African countries have brought evidence that more than half of households receiving remittances from outside Africa are in the top two consumption quintiles (Mohapatra and Ratha 2011), minimizing the consumption smoothing effect of remittances may, since these households have access to alternative means (e.g., credit markets), help to smooth out consumption shocks.

Our analysis also quantifies how much of GDP shocks are absorbed by remittances, that is the risk-sharing through migration using a very simple econometric panel framework designed by Asdrubali, Sorensen, and Yosha (1996). The results suggest that around 4 to 22 percent of GDP shocks are smoothed through remittances channel. In a context where remittances data are severely underestimated due to informal channels, misreporting or misclassification in other revenues (e.g., non resident's deposits), the stabilizing virtues of remittances are potentially underestimated as well.

How Do Remittances Affect Macroeconomic Volatility? A DSGE Model Approach

We present a small open economy dynamic stochastic general equilibrium (DSGE) model to provide a theory consistent with the preceding empirical results. In particular, we probe into the channels through which remittances affect macroeconomic fluctuations. For this purpose we used a small open economy a la Schmitt-Grohe and Uribe (2003) enriched with financial frictions which play a significant role in driving aggregate fluctuations, in particular, the excess volatility of consumption with respect to output. The model is calibrated to replicate the average economy formed in the sample of the economies. The quantitative experiments suggest that the stabilization benefits of remittances depend on two key factors: (i) the size of the wealth effect of remittances on labor supply and (ii) the ability of remittances to promote financial development. The first mechanism is highlighted by comparing the predictions of the model with two types of utility specifications: Greenwood, Hercovitz, and Huffman (1988), or GHH, which induce a zero wealth effect and King, Ploser and Rebelo (1988), or KPR, with a negative wealth effect on labor supply. This channel implies that the impact of remittances on macroeconomic fluctuations is higher in countries where the labor supply does not decrease following an increase in response to an increase in remittances (no wealth effect). In this case, the elasticity of labor supply is constant and irresponsive to changes in households' income, implying a moderate response of output and consumption in response to shocks. However, in an environment where migrants' transfers induce a negative wealth effect on the recipients' labor supply, an increase in remittances deepens the business cycle as macroeconomic variables respond strongly to exogenous shocks. In order to highlight the second channel, we assume that remittances could reduce households' borrowing costs through a lower risk-premium. This mechanism suggests remittances are more stabilizing in countries with a shallow financial sector while remittances are channeled through this sector. The reason is that remittances help credit-rationed borrowers to access financial services as they build physical assets which they can use as collateral. This finding underscores the need for recipient countries to promote financial development so as to channel remittances through the financial system and to help the poor have greater access to credit.

References

Adams, Jr., R.H., and J. Page. 2005. "Do International Migration and Remittance Reduce Poverty in Developing Countries?," *World Development*, 33(10): 1645–1669.

Asdrubali, P., B. E. Sorensen, and O. Yosha. 1996. "Channels of Interstate Risk Sharing: United States 1963–1990," *Quarterly Journal of Economics*, 111(4): 1081-1110.

(continued on page 4)

Migration: An Attractive Insurance Option in African Countries?

(continued from page 3)

Bugamelli, M., and F. Paterno. 2009. "Output Growth Volatility and Remittances," *Economica*, 78(311): 480-500.

Chami, R., Hakura, D., and Montiel, P. 2009. "Remittances: An Automatic Output Stabilizer?" IMF Working Paper 09/91, International Monetary Fund, Washington, D.C.

Combes, J-L., and C. Ebeke, 2011. "Remittances and Households Consumption Volatility in Developing Countries," *World Development Issues*, 39(7): 1076–1089.

Gupta, S., Pattillo, C., and Wagh, S. 2009. "Effect of Remittances on Poverty and Financial Development in Sub-Saharan Africa," *World Development*, 37(1): 104–115.

Greenwood, J., Hercovitz, Z. and Huffman, G.W. 1988. "Investment, Capacity Utilization, and the Real Business Cycle," *American Economic Review*, 78(3): 402-417.

Jidoud, Ahmat. 2015. "Remittances and Macroeconomic Volatility in African Countries," IMF Working Paper 15/49, International Monetary Fund, Washington, D.C.

King, R., C.I. Plosser, and S.T. Rebelo. 1988. "Production, Growth and the Business Cycles: The Basic Neoclassical Model," *Journal of Monetary Economics*, 21(2-3): 195–232.

Mohapatra, S. and D. Ratha. 2011. "Remittances Markets in Africa," The World Bank, Washington, D.C., pp. 3–88.

Schmitt-Grohe , S., Uribe, M. 2003. "Closing Small Open Economy Models," *Journal of International Economics*, 61(1): 163–185.

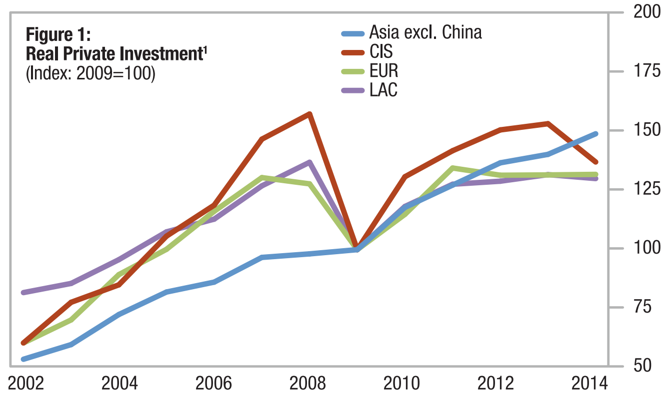
Investment in Emerging Markets

(continued from page 1)

Emerging market economies (EMEs) exhibited strong investment growth in 2003–11, interrupted only temporarily in 2009 by the global financial crisis. After peaking in 2011, however, investment growth has waned in most of these economies. Furthermore, real output growth forecasts have been revised down significantly, to a large extent because of the lower-than-projected actual investment. But what explains this weakness in investment? What is the role of external factors? Is the slowdown a generalized phenomenon across EMEs? Moreover, can recent investment trends be explained by the standard determinants? How concerned should policymakers be about the recent investment disappointment?

We address these questions by first identifying and documenting key trends in private investment across emerging market economies, putting the recent slowdown in historical perspective. Then, we study the determinants of investment using an expanded Q-theory of investment model in panel regressions that combine firm level data for about 16,000 listed firms with country-specific macroeconomic variables—particularly commodity export prices and capital inflows—for 38 emerging market economies over the period 1990–2013. After identifying the key factors driving firms' investment decisions in EMEs, we shed light on which of these factors have been the main drivers of the recent investment weakness.

The stylized facts show that although investment in EMEs has weakened in the last few years, it came down from cyclical highs and remains broadly at precrisis levels. And although investment-to-output ratios have flattened or declined moderately, they remain close to or above historical averages for most EMEs.



Source: IMF, World Economic Outlook, and IMF staff calculations
Note: LAC=Latin America and the Caribbean; EUR=Europe; CIS=Commonwealth of Independent States
[1]PPP-weighted average.

The main results from the panel regressions can be summarized as follows:

- The usual suspects: Emerging market firms' capital expenditure is positively associated with expected profitability (proxied by Tobin's Q), cash flows (suggesting the existence of borrowing constraints), and debt flows. It is negatively associated with leverage.

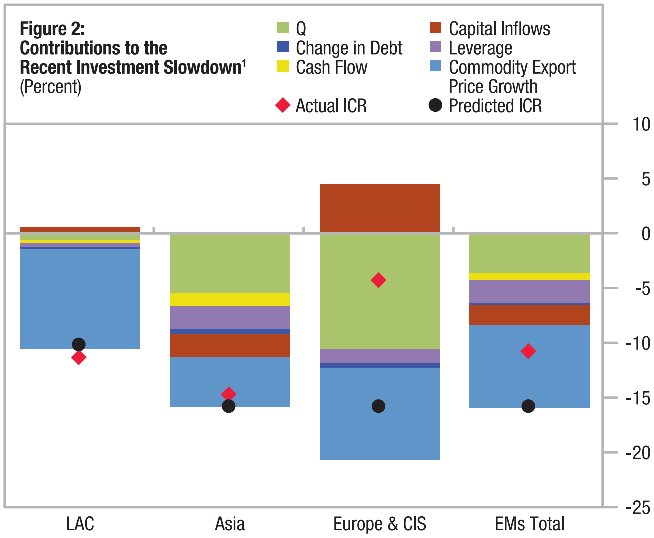
- Commodities matter: Investment is positively associated with changes in (country-specific) commodity export prices.

• Foreign financing and relaxation of financial constraints: Investment by firms in emerging markets is positively influenced by the availability of foreign (international) financing. Moreover, capital inflows help relax firms' financial constraints, with the sensitivity of investment to cash flow weakening as capital inflows increase. This effect is particularly strong for nontradable sector firms.

• After the boom: Firms' investment has not been abnormally weak in the past three years, at least not above and beyond what can be explained by the evolution of its main determinants mentioned above.

• Who is to blame? The sharp decline in commodity export prices (especially in Latin America and the Caribbean (LAC)) and the lower expected profitability of firms (which partly reflects the downward revisions to potential growth in many EMEs) have been important factors behind the recent deceleration of investment. A moderation in capital inflows to EMEs and increased leverage (particularly in Asia) have also played a significant role.

Figure 2: Contributions to the Recent Investment Slowdown[1] (Percent)



Source: Magud and Sosa (2015).

[1]Relative contribution of each factor to the 2011–13 investment slowdown.

Why does this matter? Examining the determinants of private investment is important to understand business cycle fluctuations in EMEs. But the topic is also relevant because capital accumulation is a key driver of potential output growth. The latter is of particular interest at the current juncture given that most emerging markets have been experiencing significant downward revisions to potential growth. Moreover, identifying the main drivers of the recent slowdown in investment is relevant for policymakers in emerging market economies to the extent that it helps with assessing the likely effectiveness of alternative policy measures to foster private investment and boost potential growth.

Our work is related to the extensive empirical literature on the determinants of corporate investment in emerging markets. In particular, it relates to a strand that studies financing constraints, typically relying on Tobin's Q investment models or Euler investment equations. Most of these studies have documented the importance of internal financing for firms' investment owing to capital markets imperfections. Based on this framework, for example, Fazzari and others 1988 examine the case of U.S. manufacturing firms, while Love and Zicchino 2006 study emerging market companies. The sensitivity of investment to cash flows is particularly strong for smaller firms (Fazzari and others 2000, and Carpenter and Guariglia 2008) and for firms in less financially developed economies (Love 2003). Criticism of the use of cash flow as a measure of financial frictions (e.g., Kaplan and Zingales 1997, Gomes 2001, and Abel and Eberly 2011) have been addressed by Gilchrist and Himmelberg (1995), who establish the existence of financial constraints by testing the significance of investment-cash flow sensitivities beyond the effect of the "Fundamental Q."

The study most closely linked to ours is Harrison and others 2004, which documents that foreign direct investment (FDI) flows to emerging markets are associated with a reduction in firms' financing constraints. Like us, they examine whether—and to what extent—the availability of foreign capital helps to relax financing constraints in emerging market firms by combining firm-level data on cash flows with country-specific capital flows. Forbes 2007 and Gelos and Werner 2002 also find that the latter relax when capital account restrictions are eased.

Policy Implications

The private investment weakening in emerging market economies has not represented a slump, but rather a slowdown after a period of boom. Yet, policymakers should not be complacent. First, prospects for a recovery of business investment are not promising, as the outlook for most of its determinants is generally dim. Commodity prices are expected to remain weak, capital inflows to EMEs are likely to moderate further, and external financial conditions are

(continued on page 9)

Seven Questions on Islamic Finance

Inutu Lukonga

Although still a small share of global finance, Islamic finance has grown rapidly over the past decade and is projected to continue to expand. The growth of Islamic finance presents opportunities to improve access to finance for the large underserved Muslim populations, and for small- and medium-sized enterprises, opportunities to facilitate investment in public infrastructures and to promote financial stability. However, for the potential to be realized and to safeguard financial stability, a number of challenges will need to be addressed. In their IMF Staff Discussion Note (SDN 15/05), entitled "Islamic Finance: Opportunities, Challenges and Policy Implications," the authors discuss the macroeconomic and financial stability implications of Islamic finance and the policy options. This article provides brief answers to seven commonly asked questions about Islamic finance, drawing on the findings of recently completed analytical work.

Question 1. What is Islamic finance and why does it matter?

Islamic Finance refers to the provision of financial services in accordance with Shari'ah Islamic law, principles, and rules. The main tenets of Shari'ah as applied to finance are: the prohibition of interest; excessive uncertainty and gambling; risk sharing; the requirement that finance supports real economic activities; and the adherence to ethical standards.

The Islamic finance industry mainly comprises banking and the Sukuk or Islamic bond market which account for 80 percent and 15 percent of total Islamic financial assets, respectively. The balance is accounted for by equities, investment funds, insurance (Takaful), and microfinance. Islamic finance is growing rapidly in terms of assets and geographical reach, although the assets are concentrated in Southeast Asia and the Middle East, particularly the Gulf Cooperation Countries (GCC). The Islamic banking sector is now systemically important in a dozen countries and Sukuk is increasing its global reach to include issuers from advanced, emerging, and developing economies (Figure 1).

The growth of the Islamic finance industry offers important potential benefits. It can facilitate financial inclusion by increasing access to banking services to underserved Muslim populations; the risk-sharing characteristics of Islamic financial products can facilitate access to finance by small- and medium-sized enterprises (SMEs); and the asset-backed nature of Sukuk makes them suitable for infrastructure financing that can help spur economic development, including creating an enabling environment for private sector investment. Moreover, the requirement to finance real economic activity can reduce leverage while the risk-sharing features enhance the loss absorbency of capital.

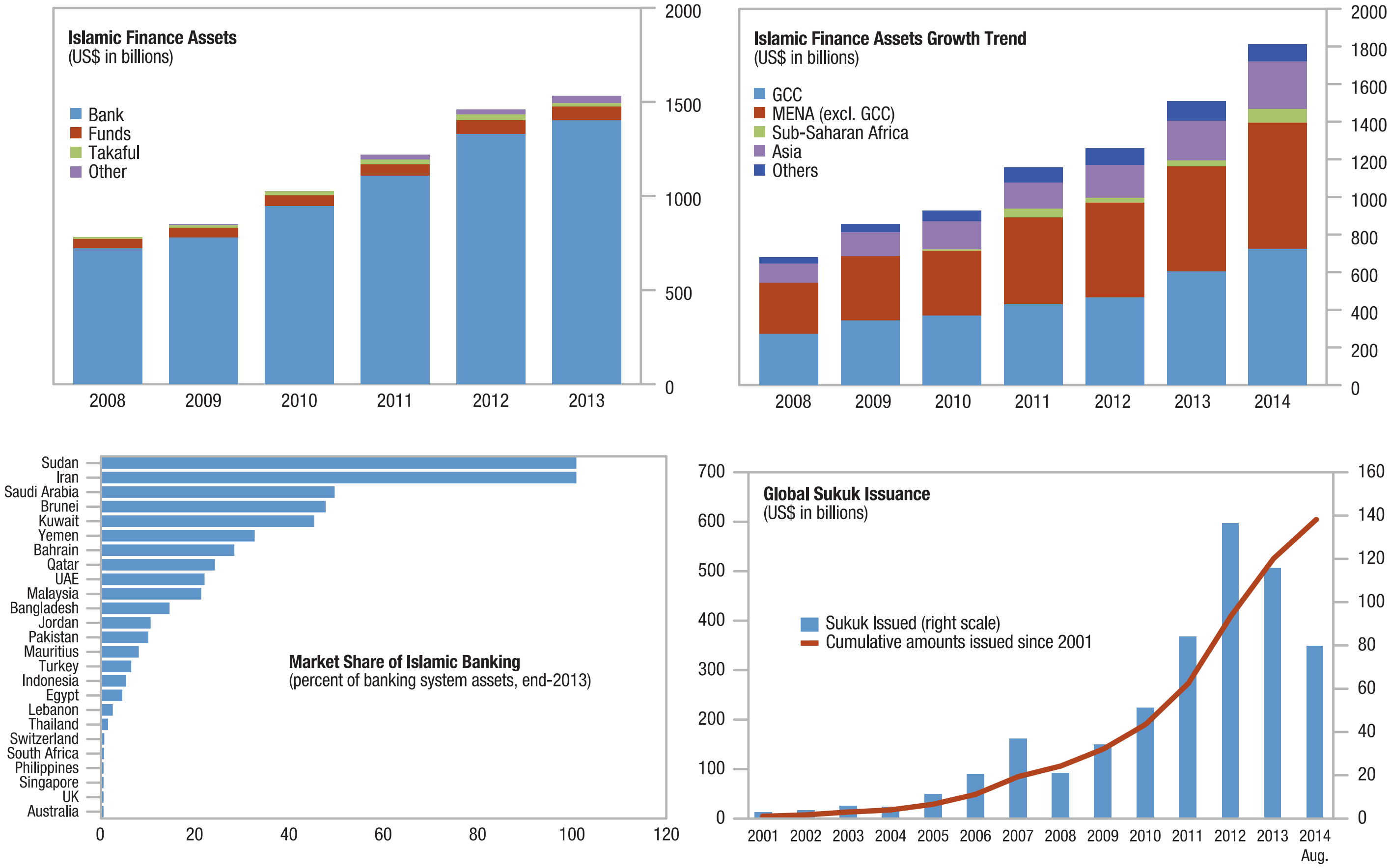
However, to realize the potential and to safeguard financial stability, countries need to adapt their regulatory, supervisory, and consumer protection frameworks to the specificities of Islamic finance; to develop Shari'ah-compliant financial markets and monetary instruments; and to build an enabling environment for Sukuk market development.

Question 2. What stability risks are unique to Islamic banking and what changes are needed to regulatory frameworks to safeguard financial stability?

Islamic financial transactions are structured differently from conventional products because of the need to comply with Shari'ah principles. Unlike conventional banks, Islamic banks are funded by current accounts that do not attract interest or by profit-sharing investment accounts (PSIA) where the investment account holder (IAH) receives a return that is determined, after the fact, by the profitability of the underlying financing and the IAH bears losses, if any. On the assets side, transactions include sales with a profit markup and deferred payments, leases, partnerships, or joint ventures. Additionally, to facilitate the investments, Islamic banks are permitted in some jurisdictions to establish subsidiaries of non-financial corporations in their groups, resulting in conglomerate corporate structures.

Consequently, in addition to standard banking risks (such as credit, market, liquidity, and operational risks), Islamic banks also face unique risks such as the displaced commercial risk (DCR) whereby shareholders may forego a part of their profits to provide competitive earnings to IAHs, equity

Figure 1:
Overview of Trends in the Islamic Finance Industry



investment risk stemming from partnership-like financing, rate of return risk in a context of dual systems where lower earnings may lead to customer flight, and Shari'ah compliance risk. Other standard banking risks such as operational, group risks, concentration, and liquidity risks could also be more heightened because of the complexity of some contracts; corporate structures that include a myriad of non-financial corporations; and underdeveloped liquidity infrastructure and safety nets. PSIAs also raise unique consumer protection issues because of inadequacies in disclosures and the asymmetric treatment of PSIA as investors without shareholder rights.

Therefore, to safeguard financial stability, there is need for further regulatory clarity and consistency, through greater adoption of Islamic standards developed by Islamic standard setting bodies. Countries with Islamic banks need to adopt a cross sectional approach to supervision of Islamic banks, avoid treating profit-sharing investment accounts as pure deposits while enhancing disclosures and corporate governance for the PSIA, strengthen Shari'ah governance structures, and build supervisory capacity. There is also a need to develop supporting financial infrastructures, including Shari'ah-compliant financial safety nets and appropriate resolution frameworks.

Question 3: How does Islamic banking affect monetary policy conduct given the prohibition on interest and what reforms are needed?

Monetary policy formulation and implementation are challenging in the presence of Islamic finance because of the scarcity of Shari'ah-compliant monetary policy instruments, the under development of money and interbank markets, and inadequate understanding of the monetary transmission mechanism. Shari'ah-compliant central bank facilities are also limited, reflecting the difficulty in designing market-based instruments for monetary control and limited Sukuk issuance. The shortage of Shari'ah-compliant high-quality liquid assets (HQLA) also reduces the collateral available for liquidity management and may also affect the smooth functioning of the payment systems. Therefore, a key priority

(continued on page 8)

Seven Questions *(continued from page 7)*

will be to bolster the supply of Sukuk and develop Shari'ah-compliant monetary policy instruments.

Question 4. What needs to be done to deepen the Sukuk market?

Although the Sukuk market has registered rapid growth in value and the issuer base has broadened, the markets for Sukuk are still neither deep nor liquid, and most issues of Sukuk are asset based and not asset backed. Issuance also takes place without a comprehensive strategy to develop the domestic market.

National authorities should, therefore, develop the necessary infrastructure, including developing securitization and trust laws, promoting true securitization, clarify legally the investor's rights—particularly in defaults—and promote standardization of contracts. Regular sovereign issuance, and at different maturities, is critical for deepening the market and establishing a yield (or Sukuk) curve that could provide a benchmark for corporate Sukuk. Increased sovereign issuance should also be underpinned by sound public financial management (PFM), and attention should be given to the accounting and statistical treatment of Sukuk instruments, which are currently largely overlooked in existing international standards.

Question 5. What are the tax implications of the growth of Islamic finance?

Islamic finance raises a number of taxation issues that call for policy attention at both national and international levels. The favorable treatment of debt in most tax systems relative to equity can disadvantage Islamic finance. Secondly, Islamic finance involves a series of transactions that could attract value-added, stamp, and other sales taxes that could put Islamic finance at a disadvantage relative to conventional finance. Therefore, particular attention is needed to ensure that tax systems guarantee a level playing field and that the system does not create incentives for international regulatory arbitrage.

Question 6: Does Islamic finance require changes to macroprudential policies?

Most macroprudential policies are applicable to Islamic banks with some modifications. The countercyclical capital buffer framework, conservation buffers, leverage ratio, dynamic provisioning, and sectoral risk weights could help in mitigating credit risks. Also, profit equalization reserves (PER) and investment risk reserve (IRR) can serve as countercyclical reserve buffers. However, given the business model that includes investment, modifications are needed to risk metric and stress tests for identifying and monitoring risks. Sectoral concentrations and liquidity risks also deserve greater attention because of the requirement to underpin all transactions with real economic activity and also the underdeveloped nature of Shari'ah-compliant financial markets and safety nets.

Question 7. What has prompted the IMF to focus on Islamic finance and what is the agenda going forward?

The IMF's interest in Islamic finance is not new. In the early 1980s, the IMF initiated a program of research on the theoretical underpinnings of an Islamic financial system, the operations of Islamic banking, and the conduct of monetary policy within an Islamic system. The IMF also played a key role in the establishment of the Islamic Financial Services Board in 2002. Where relevant, the IMF has been providing policy advice (Article IV consultations and its FSAP assessment) and technical assistance (TA) to strengthen the regulatory framework and monetary operations and to develop the Sukuk market.

However, with the growth of the industry, demands from member countries for policy advice and technical assistance have increased and the evolution of and innovations in the industry also present new opportunities and challenges. So to ensure coherence and consistency in our policy advice, the IMF formed an interdepartmental working group on Islamic finance to undertake analytical work on the macroeconomic and financial stability implications of Islamic finance. The IMF also established an external advisory group which helped to identify policy challenges facing the Islamic finance industry and facilitated coordination with those international institutions involved in establishing standards for the industry. The findings are summarized in the Staff Discussion Note (SDN 15/05) issued on April 6, 2015, entitled "Islamic Finance: Opportunities, Challenges, and Policy Options."

To foster policy dialogue on issues raised in the SDN, the IMF and the G20 presidency jointly organized a seminar on Islamic finance during the 2015 IMF-World Bank Spring Meetings entitled "Islamic Finance: Unlocking Its Potential and Supporting Stability." The seminar was a kickoff event for a global conference on Islamic Finance that will be held in November 2015 in Kuwait. In the interim, a series of working papers that underpinned our policy conclusions will be published and consolidated into a book. The IMF will also continue regular policy dialogue with our member countries, our financial stability assessments, our technical assistance, and training.

Investment in Emerging Markets

(continued from page 5)

set to become tighter because of the impact of the normalization of the U.S. monetary policy. The recent declines in potential growth estimates for most EMEs are also likely to be a drag on business investment going forward. Moreover, investment ratios are still relatively low in some emerging market regions, particularly in Latin America and the Caribbean, so boosting private investment remains a policy priority.

In light of our results on the size and persistence of financing constraints, especially for smaller firms, business investment in EMEs would benefit from further deepening domestic financial systems, strengthening capital market development, and promoting access to finance—of course, subject to sufficient safeguards to ensure financial stability. Strengthening financial infrastructure and legal frameworks, and enhancing capital market access to funding for small and mid-sized firms would be positive measures.

More generally, and beyond the scope of our study, structural reforms to boost productivity could help unlock private investment and output growth. The design of a policy agenda of structural reforms is a difficult task and entails country-specific considerations, but in many emerging markets, the efforts to improve infrastructure and human capital, strengthen the business climate, and foster competition are key priorities.

References

Abel, A. and J. Eberly. 2011. "How Q and Cash Flow Affect Investment Without Frictions: An Analytical Explanation," *Review of Economic Studies*, 78(March): 1179–1200.

Carpenter, R. and A. Guariglia. 2008. "Cash Flow, Investment, and Investment Opportunities: New Tests Using UK Panel Data," *Journal of Banking and Finance*, 32(September): 1894–1906.

Fazzari, S., G. Hubbard, and B. Petersen. 1988. "Financing Constraints and Corporate Investment," *Brooking Papers on Economic Activity*, 1: 1998, 141–195.

Fazzari, S., G. Hubbard, and B. Petersen. 2000. "Investment-Cash Flow Sensitivities are Useful: A Comment on Kaplan and Zingales," *Quarterly Journal of Economics*, 115(2), May, 695–705.

Gilchrist, S. and C. Himmelberg. 1995. "Evidence on the Role of Cash Flow for Investment," *Journal of Monetary Economics*, 36(December): 541–572.

Gomes, J. 2001. "Financing Investment," *American Economic Review*, December, 1263–1285.

Harrison, A., I. Love, and M. McMillan. 2004. "Global Capital Flows and Financing Constraints," *Journal of Development Economics*, 75(August): 269–301.

Hubbard, G. 1998. "Capital-Market Imperfections and Investment," *Journal of Economic Literature*, 36(March): 193–225.

Kaplan, S.N., and L. Zingales. 1997. "Do Investment-Cash Flow Sensitivities Provide Useful Measures of Financing Constraints?" *Quarterly Journal of Economics*, 112(February): 169–216.

Love, I. 2003. "Financial Development and Financing Constraints: International Evidence from the Structural Investment Model," *Review of Financial Studies*, 16(2003): 765–791.

Love, I. and L. Zicchino. 2006. "Financial Development and Dynamic Investment Behavior: Evidence from Panel VAR," *Quarterly Review of Economics and Finance*, 46 (2, May): 190–210.

Magud, N. and S. Sosa. 2015. "Investment in Emerging Markets: We Are Not in Kansas Anymore…Or Are We?," IMF Working Paper 15/77, International Monetary Fund, Washington, D.C.

IMF Working Papers

Working Paper 15/33
On the First-Round Effects of International Food Price Shocks: the Role of the Asset Market Structure
Rafael Portillo; Luis-Felipe Zanna

Working Paper 15/34
ASEAN Financial Integration
Geert Almekinders; Alex Mourmouras; Jian-Ping Zhou; Satoshi Fukuda

Working Paper 15/35
Private Sector Deleveraging and Growth Following Busts
Sally Chen; Minsuk Kim; Marijn Otte; Kevin Wiseman; Aleksandra Zdzienicka

Working Paper 15/36
Uncertainty and Unemployment: The Effects of Aggregate and Sectoral Channels
Sangyup Choi; Prakash Loungani

Working Paper 15/37
Value of WTO Trade Agreements in a New Keynesian Model
Giovanni Ganelli; Juha Tervala

Working Paper 15/38
Financial Decisions and Investment Outcomes in Developing Countries: The Role of Institutions
Rima Turk

Working Paper 15/39
A Phillips Curve with Anchored Expectations and Short-Term Unemployment
Laurence M. Ball; Sandeep Mazumder

Working Paper 15/40
The Sources of Business Cycles in a Low Income Country
Romain Houssa; Jolan Mohimont; Christopher Otrok

Working Paper 15/41
Are Islamic Banks More Resilient During Financial Panics?
Moazzam Farooq; Sajjad Zaheer

Working Paper 15/42
Asia's Quest for Inclusive Growth Revisited
Chie Aoyagi; Giovanni Ganelli

Working Paper 15/43
Are Foreign Banks a 'Safe Haven'? Evidence from Past Banking Crises
Gustavo Adler; Eugenio Cerutti

Working Paper 15/44
Is Banks' Home Bias Good or Bad for Public Debt Sustainability?
Tamon Asonuma; Said Bakhache; Heiko Hesse

Working Paper 15/45
Made in Mexico: Energy Reform and Manufacturing Growth
Jorge Alvarez; Fabian Valencia

Working Paper 15/46
Interconnectedness, Systemic Crises, and Recessions
Marco A. Espinosa-Vega; Steven Russell

Working Paper 15/47
Central and Commercial Bank Balance Sheet Risk Before, During, and After the Global Financial Crisis
Joseph Crowley

Working Paper 15/48
The Level of Productivity in Traded and Non-Traded Sectors for a Large Panel of Countries
Rui Mano; Marola Castillo

Working Paper 15/49
Remittances and Macroeconomic Volatility in African Countries
Ahmat Jidoud

Working Paper 15/50
A Global Projection Model for Euro Area Large Economies
Zoltan Jakab; Pavel Lukyantsau; Shengzu Wang

Working Paper 15/51
Structural Transformation — How Does Thailand Compare?
Vladimir Klyuev

Working Paper 15/52
How Delaying Fiscal Consolidation Affects the Present Value of GDP
Kevin Fletcher; Damiano Sandri

Working Paper 15/53
Pressing the Indian Growth Accelerator: Policy Imperatives
Rakesh Mohan; Muneesh Kapur

Working Paper 15/54
How Inclusive Is Abenomics?
Chie Aoyagi; Giovanni Ganelli; Kentaro Murayama

Working Paper 15/55
Women Workers in India: Why So Few Among So Many?
Sonali Das; Sonali Jain-Chandra; Kalpana Kochhar; Naresh Kumar

Working Paper 15/56
What Can Boost Female Labor Force Participation in Asia?
Yuko Kinoshita; Fang Guo

Working Paper 15/57
The Role of Bank Capital in Bank Holding Companies' Decisions
Adolfo Barajas; Thomas F. Cosimano; Dalia Hakura; Sebastian Roelands

Working Paper 15/58
A Stock-Flow Accounting Model of the Labor Market: An Application to Israel
Yossi Yakhin; Natalya Presman

Working Paper 15/59
Fiscal Decentralization and the Efficiency of Public Service Delivery
Moussé Sow; Ivohasina Fizara Razafimahefa

Working Paper 15/60
Central Banking in Latin America: From the Gold Standard to the Golden Years
Luis Ignacio Jácome

Working Paper 15/61
The Use and Effectiveness of Macroprudential Policies: New Evidence
Eugenio Cerutti; Stijn Claessens; Luc Laeven

Working Paper 15/62
Estimating Potential Growth in the Middle East and Central Asia
Pritha Mitra; Amr Hosny; Gohar Abajyan; Mark Fischer

Working Paper 15/63
Soft Power and Exchange Rate Volatility
Serhan Cevik; Richard Harris; Fatih Yilmaz

Working Paper 15/64
The Flexible System of Global Models – FSGM
Michal Andrle; Patrick Blagrave; Pedro Espaillat; Keiko Honjo; Ben Hunt; Mika Kortelainen; René Lalonde; Douglas Laxton; Eleonara Mavroeidi; Dirk Muir; Susanna Mursula; Stephen Snudden

Working Paper 15/65
Uncertainty and Investment: The Financial Intermediary Balance Sheet Channel
Sophia Chen

Working Paper 15/66
China: How Can Revenue Reforms Contribute to Inclusive and Sustainable Growth?
W. Raphael Lam and Philippe Wingender

Working Paper 15/67
Playing by the Rules: Reforming Fiscal Governance in Europe
Luc Eyraud; Tao Wu

Working Paper 15/68
Growing (Un)equal: Fiscal Policy and Income Inequality in China and BRIC+
Serhan Cevik; Carolina Correa-Caro

Working Paper 15/69
Investment Scaling-up and the Role of Government: The Case of Benin
Matteo Ghilardi; Sergio Sola

Working Paper 15/70
Spillovers in the Nordic Countries
Borislava Mircheva; Dirk Muir

Working Paper 15/71
Fiscal Multipliers in Ukraine
Pritha Mitra; Tigran Poghosyan

Working Paper 15/72
Assessing China's Corporate Sector Vulnerabilities
Mali Chivakul; Raphael W. Lam

Working Paper 15/73
Electronic Fiscal Devices (EFDs): An Empirical Study of their Impact on Taxpayer Compliance and Administrative Efficiency
Peter Casey; Patricio Castro

Working Paper 15/74
Frontiers of Monetary Policymaking: Adding the Exchange Rate as a Tool to Combat Deflationary Risks in the Czech Republic
Ali Alichi; Jaromir Benes; Joshua Felman; Irene Feng; Charles Freedman; Douglas Laxton; Evan Tanner; David Vavra; Hou Wang

Working Paper 15/75
How Did Markets React to Stress Tests?
Bertrand Candelon; Amadou N. R. Sy

Working Paper 15/76
Recent U.S. Labor Force Dynamics: Reversible or Not?
Ravi Balakrishnan; Mai Dao; Juan Sole; Jeremy Zook

Working Paper 15/77
Investment in Emerging Markets: We Are Not in Kansas Anymore…Or Are We?
Nicolas E. Magud; Sebastian Sosa

Working Paper 15/78
Macroprudential Policy and Labor Market Dynamics in Emerging Economies
Alan Finkelstein Shapiro; Andres Gonzalez

Working Paper 15/79
A Simple Multivariate Filter for Estimating Potential Output
Patrick Blagrave; Roberto Garcia-Saltos; Douglas Laxton; Fan Zhang

Working Paper 15/80
Capital Control Measures: A New Dataset
Andrés Fernández; Michael W. Klein; Alessandro Rebucci; Martin Schindler; Martin Uribe

Working Paper 15/81
Is Islamic Banking Good for Growth?
Patrick A. Imam; Kangni Kpodar

(continued on page 12)

IMF Working Papers *(continued from page 11)*

Working Paper 15/82
Hong Kong's Growth Synchronization with China and the U.S.: A Trend and Cycle Analysis
Dong He; Wei Liao; Tommy Wu

Working Paper 15/83
Do Resource Windfalls Improve the Standard of Living in Sub-Saharan African Countries?: Evidence from a Panel of Countries
Munseob Lee; Cheikh A. Gueye

Working Paper 15/84
Understanding Residential Real Estate in China
Mali Chivakul; Raphael W. Lam; Xiaoguang Liu; Wojciech Maliszewski; Alfred Schipke

Working Paper 15/85
Financial Crisis, US Unconventional Monetary Policy, and International Spillovers
Qianying Chen; Andrew Filardo; Dong He; Feng Zhu

Working Paper 15/86
Non-FDI Capital Inflows in Low-Income Developing Countries: Catching the Wave?
Juliana Dutra Araujo; Antonio David; Carlos van Hombeeck; Chris Papageorgiou

Working Paper 15/87
Determinants of Bank Interest Margins in the Caucasus and Central Asia
Raja Almarzoqi; Sami Ben Naceur

Working Paper 15/88
What has Capital Liberalization Meant for Economic and Financial Statistics
Robert M. Heath

Working Paper 15/89
Fair Weather or Foul? The Macroeconomic Effects of El Niño
Paul Cashin; Kamiar Mohaddes; Mehdi Raissi

Working Paper 15/90
From Natural Resource Boom to Sustainable Economic Growth: Lessons for Mongolia
Pranav Gupta; Grace Bin Li; Jiangyan Yu

Working Paper 15/91
The Role of Productivity, Transportation Costs, and Barriers to Intersectoral Mobility in Structural Transformation
Cem Karayalcin; Mihaela Pintea

Working Paper 15/92
The Potential Macroeconomic Impact of the Unconventional Oil and Gas Boom in the United States
Ben Hunt; Dirk Muir; Martin Sommer

Working Paper 15/93
Too Much of a Good Thing? Prudent Management of Inflows under Economic Citizenship Programs
Xin Xu; Ahmed El-Ashram; Judith Gold

Working Paper 15/94
How Important Are Debt and Growth Expectations for Interest Rates?
Sohrab Rafiq

Working Paper 15/95
The Macroeconomic Effects of Public Investment: Evidence from Advanced Economies
Abdul Abiad; Davide Furceri; Petia Topalova

Working Paper 15/96
What Drives Interest Rate Spreads in Pacific Island Countries? An Empirical Investigation
Fazurin Jamaludin; Vladimir Klyuev; Anuk Serechetapongse

Working Paper 15/97
Determinants of Firm Profitability in Colombia's Manufacturing Sector: Exchange Rate or Structural?
Naomi Griffin

Working Paper 15/98
Tax Policy in MENA Countries: Looking Back and Forward
Mario Mansour

Working Paper 15/99
How To Improve the Effectiveness of Monetary Policy in the West African Economic and Monetary Union
Alexei Kireyev

Working Paper 15/100
Does Basel Compliance Matter for Bank Performance?
Rym Ayadi; Sami Ben Naceur; Barbara Casu; Barry Quinn

Working Paper 15/101
Energy Subsidies and Public Social Spending: Theory and Evidence
Christian Ebeke; Constant Lonkeng Ngouana

Working Paper 15/102
Are African Households Heterogeneous Agents?: Stylized Facts on Patterns of Consumption, Employment, Income, and Earnings for Macroeconomic Modelers
Louise Fox

Working Paper 15/103
High Liquidity Creation and Bank Failures
Zuzana Fungacova; Rima Turk; Laurent Weill

Working Paper 15/104
Domestic and Foreign Mutual Funds in Mexico: Do They Behave Differently?
Jasmine Xiao

IMF Working Papers and other IMF publications can be downloaded in full-text format from the **Research at the IMF** website: *http://www.imf.org/research.*

IMF Economic Review

IMF Economic Review (IMFER) is dedicated to publishing peer-reviewed, high-quality, context-related academic research that addresses important policy questions, including:

» Macroeconomic implications of financial crises

» Economic and financial spillovers

» Policy responses to crises

» Fiscal policy and stabilization

» Policy responses to commodity price movements

» Monetary and macroprudential policies

The journal is essential reading for anyone interested in questions related to global economic policies, open economy macroeconomics, and international finance and trade.

Featured articles:

The *IMF Economic Review* is pleased to share highlights from recent issues, which are free to read online through July 31, 2015:

Dilemma Not Trilemma? Capital Controls and Exchange Rates with Volatile Capital Flows
Emmanuel Farhi and Iván Werning

Policy Corner: Have We Found an Age of Secular Stagnation?
Lawrence H. Summers

Visit the journal website to:

- Read this and other sample content
- Read author guidelines and submit your papers online
- Find subscription and pricing information

http://bit.ly/IMFEconRev-615

Worried About Climate Change?

Join the Energy and Climate Policy Debate hosted by the IMF eLibrary.

Visit eLibrary–collaborate.imf.org to share and discuss views and the latest research and trends in the field of energy and environmental economics.

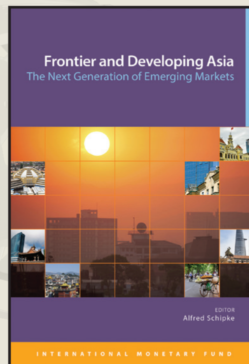
Contributors are signing up fast to join in the discussion forum about how to tackle the economic aspects of climate change.

Recent discussion topics include:

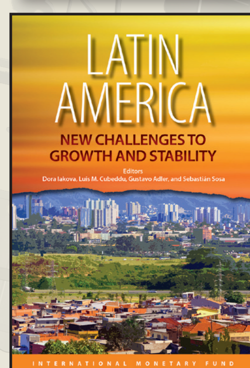
- Paris Summit—commitments not deep enough?
- Ways to reduce opposition to environmental tax reform;
- Climate change and the Catholic Church;
- The Fall of Coal;
- Tesla's battery-fueled dreams;
- Is development the best kind of climate adaptation?

Recommended Readings from IMF Publications

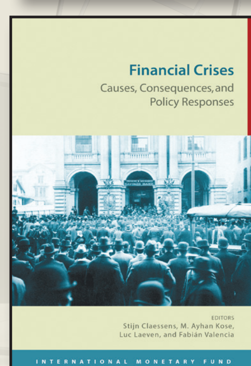
Frontier and Developing Asia: The Next Generation of Emerging Markets
edited by Alfred Schipke
$25. ©2015. 272 pp. Paperback.



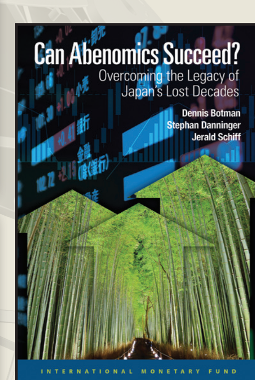
Latin America: New Challenges to Growth and Stability
edited by Dora Iakova, Luis M. Cubeddu, Gustavo Adler, and Sebastian Sosa
$25. ©2014. 270 pp. Paperback.



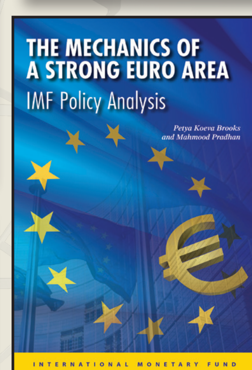
Financial Crises: Causes, Consequences, and Policy Responses
edited by Stijn Claessens, M. Ayhan Kose, Luc Laeven, and Fabián Valencia
$40. ©2014. 670 pp. Hardback



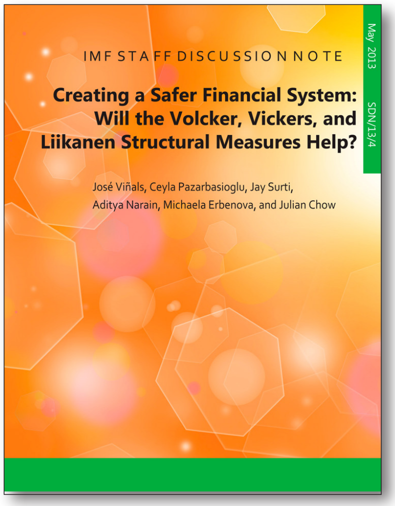
Can Abenomics Succeed? Overcoming the Legacy of Japan's Lost Decades
by Dennis Botman, Stephan Danninger, and Jerald Schiff
$25. ©2015. 201 pp. Paperback.



The Mechanics of a Strong Euro Area: IMF Policy Analysis
by Mahmood Pradhan and Petya Koeva Brooks
$40 ©2015 Approx. 250 pp. Paperback



For more information on these titles and other IMF titles, please visit imfbookstore.org/rb



Staff Discussion Notes

Staff Discussion Notes showcase new policy-related analysis and research by IMF departments. These papers are generally brief and written in nontechnical language, and are aimed at a broad audience interested in economic policy issues. For more information on this series and to download the papers in this series, please visit: *www.imf.org/external/pubs/cat/createx/Publications.aspx?page=sdn*.

No. 15/03

The New Normal: A Sector-Level Perspective on Growth and Productivity Trends in Advanced Economies (with Technical Appendix)
Era Dabla-Norris, Si Guo, Vikram Haksar, Minsuk Kim, Kalpana Kochhar, KevinWiseman, and Aleksandra Zdzienicka

No. 15/04

Tackling Small and Medium-Sized Enterprise Problem Loans in Europe
Wolfgang Bergthaler, Kenneth Kang, Yan Liu, and Dermot Monaghan

No. 15/05

Islamic Finance: Opportunities, Challenges, and Policy Options
Alfred Kammer, Mohamed Norat, Marco Piñón, Ananthakrishnan Prasad, Christopher Towe, Zeine Zeidane, and an IMF Staff Team

No. 15/06

Fiscal Policy in Latin America: Lessons and Legacies of the Global Financial Crisis (with Technical Appendix)
Oya Celasun, Francesco Grigoli, Keiko Honjo, Javier Kapsoli, Alexander Klemm, Bogdan Lissovolik, Jan Luksic, Marialuz Moreno-Badia, Joana Pereira, Marcos Poplawski-Ribeiro, Baoping Shang, and Yulia Ustyugova

No. 15/07

Revitalizing Securitization for Small and Medium-Sized Enterprises in Europe
Shekhar Aiyar, Ali Al-Eyd, Bergljot Barkbu, and Andreas A. Jobst
and
Proposed Attributes of High-Quality Securitization in Europe – Annex II of "Revitalizing Securitization for Small and Medium-Sized Enterprises in Europe
Andreas A. Jobst

No. 15/08

Rethinking Financial Deepening: Stability and Growth in Emerging Markets
Ratna Sahay, Martin Čihák, Papa N'Diaye, Adolfo Barajas, Ran Bi, Diana Ayala, Yuan Gao, Annette Kyobe, Lam Nguyen, Christian Saborowski, Katsiaryna Svirydzenka, and Seyed Reza Yousefi

IMF Research Bulletin

Rabah Arezki
Editor

Prakash Loungani
Co-Editor

Patricia Loo
Assistant Editor

Tracey Lookadoo
Editorial Assistant

Multimedia Services
Composition

The **IMF Research Bulletin** (ISSN: 1020-8313) is a quarterly publication in English and is available free of charge. The views expressed in the *Bulletin* are those of the author(s) and do not necessarily represent those of the IMF or IMF policy. Material from the *Bulletin* may be reprinted with proper attribution. Editorial correspondence may be addressed to The Editor, *IMF Research Bulletin*, IMF, Room HQ1-9-612, Washington, DC 20431 USA; or e-mailed to *resbulletin@imf.org*.

For Electronic Notification

Sign up at *www.imf.org/external/cntpst* to receive notification of new issues of the *IMF Research Bulletin* and a variety of other IMF publications. Individual issues of the *Bulletin* are available at *www.imf.org/researchbulletin*.