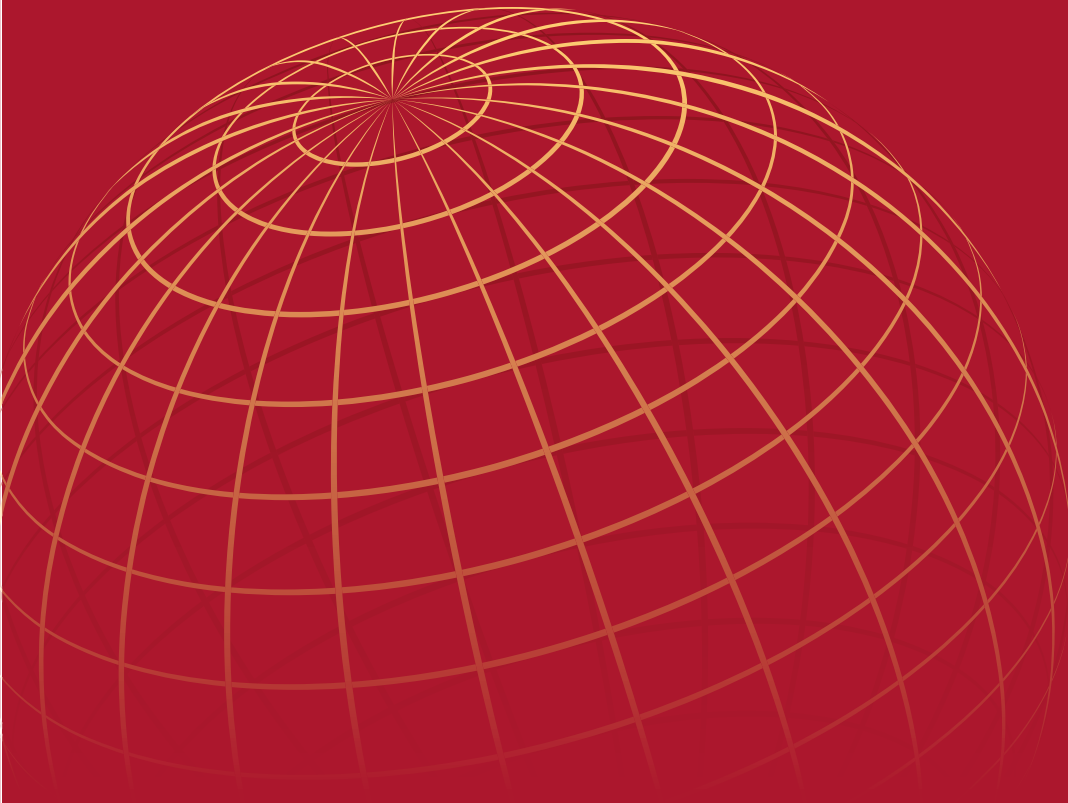


A World Bank Group  
Flagship Report

JUNE 2015

# Global Economic Prospects

**The Global Economy  
in Transition**



WORLD BANK GROUP





# Global Economic Prospects



JUNE 2015

# Global Economic Prospects

The Global Economy  
in Transition

© 2015 International Bank for Reconstruction and Development / The World Bank  
1818 H Street NW, Washington, DC 20433  
Telephone: 202-473-1000; Internet: [www.worldbank.org](http://www.worldbank.org)

Some rights reserved

1 2 3 4 18 17 16 15

This work is a product of the staff of The World Bank with external contributions. The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of The World Bank, its Board of Executive Directors, or the governments they represent. The World Bank does not guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of The World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Nothing herein shall constitute or be considered to be a limitation upon or waiver of the privileges and immunities of The World Bank, all of which are specifically reserved.

#### Rights and Permissions



This work is available under the Creative Commons Attribution 3.0 IGO license (CC BY 3.0 IGO) <http://creativecommons.org/licenses/by/3.0/igo>. Under the Creative Commons Attribution license, you are free to copy, distribute, transmit, and adapt this work, including for commercial purposes, under the following conditions:

**Attribution**—Please cite the work as follows: World Bank Group. 2015. *Global Economic Prospects, June 2015: The Global Economy in Transition*. Washington, DC: World Bank. doi: 10.1596/978-1-4648-0483-0. License: Creative Commons Attribution CC BY 3.0 IGO

**Translations**—If you create a translation of this work, please add the following disclaimer along with the attribution: *This translation was not created by The World Bank and should not be considered an official World Bank translation. The World Bank shall not be liable for any content or error in this translation.*

**Adaptations**—If you create an adaptation of this work, please add the following disclaimer along with the attribution: *This is an adaptation of an original work by The World Bank. Views and opinions expressed in the adaptation are the sole responsibility of the author or authors of the adaptation and are not endorsed by The World Bank.*

**Third-party content**—The World Bank does not necessarily own each component of the content contained within the work. The World Bank therefore does not warrant that the use of any third-party-owned individual component or part contained in the work will not infringe on the rights of those third parties. The risk of claims resulting from such infringement rests solely with you. If you wish to re-use a component of the work, it is your responsibility to determine whether permission is needed for that re-use and to obtain permission from the copyright owner. Examples of components can include, but are not limited to, tables, figures, or images.

All queries on rights and licenses should be addressed to the Publishing and Knowledge Division, The World Bank, 1818 H Street NW, Washington, DC 20433, USA; fax: 202-522-2625; e-mail: [pubrights@worldbank.org](mailto:pubrights@worldbank.org).

ISBN (paper): 978-1-4648-0483-0  
ISBN (electronic): 978-1-4648-0485-4  
DOI: 10.1596/978-1-4648-0483-0

ISSN: 1014-8906

Cover design: Bill Praguski (Critical Stages)

The cutoff date for the data used in this report was May 20, 2015.

# Contents

Foreword .....	xiii	
Acknowledgments .....	xv	
Abbreviations .....	xvii	
<b>Chapter 1</b>	<b>Global Outlook: The Global Economy in Transition</b> .....	<b>1</b>
	Summary and Key Messages .....	3
	Recent Developments and Outlook in Major Economies .....	6
	Global Trends and Spillovers .....	10
	Recent Developments and Outlook in Developing Countries .....	24
	Risks to the Outlook .....	36
	Policy Challenges .....	44
	References .....	55
	<b>Boxes</b>	
	1.1 Negative Interest Rates in Europe: A Glance at Their Causes and Implications .....	13
	1.2 Low Oil Prices in Perspective .....	25
	1.3 Recent Developments in Emerging and Developing Country Labor Markets .....	49
<b>Special Feature 1</b>	<b>Hoping for the Best, Preparing for the Worst: Risks around U.S. Rate Liftoff and Policy Options.</b> .....	<b>63</b>
	Introduction .....	65
	How Have Growth Prospects and Policies in Advanced Countries Changed since the Taper Tantrum? .....	66
	What Are the Major Risks around the Liftoff? .....	67
	What Are Possible Implications of the Liftoff for Emerging Markets? .....	70
	What Are the Major Lessons for Emerging Markets from the Taper Tantrum? .....	72
	How Have Growth Prospects and Vulnerabilities in Emerging Markets Changed since the Taper Tantrum? .....	74
	What Policy Options Are Available to Prepare for Risks around Liftoff? .....	76
	Conclusion .....	78
	References .....	85
	<b>Boxes</b>	
	SF1.1 Econometric Analysis of U.S. Yields and Spillovers .....	79

<b>Special Feature 2</b>	<b>After the Commodities Boom: What Next for Low-Income Countries?</b> . . . . .	<b>91</b>
	A. Implications of the Recent Decline in Commodity Prices for Commodity Exporting, Low-Income Countries . . . . .	93
	B. Recent Developments and Near-Term Outlook in Low-Income Countries. . . . .	102
	References. . . . .	104
<b>Chapter 2</b>	<b>Regional Outlooks</b> . . . . .	<b>107</b>
	<i>East Asia and Pacific</i> . . . . .	109
	Recent Developments . . . . .	109
	Outlook . . . . .	112
	Risks. . . . .	113
	Policy Challenges . . . . .	114
	<i>Europe and Central Asia</i> . . . . .	119
	Recent Developments . . . . .	119
	Outlook . . . . .	122
	Risks. . . . .	124
	Policy Challenges . . . . .	125
	<i>Latin America and the Caribbean</i> . . . . .	131
	Recent Developments . . . . .	131
	Outlook . . . . .	134
	Risks. . . . .	135
	Policy Challenges . . . . .	136
	<i>Middle East and North Africa</i> . . . . .	141
	Recent Developments . . . . .	141
	Outlook . . . . .	143
	Risks. . . . .	144
	Policy Challenges . . . . .	145
	<i>South Asia</i> . . . . .	149
	Recent Developments . . . . .	149
	Outlook . . . . .	152
	Risks and Policy Challenges . . . . .	154
	<i>Sub-Saharan Africa</i> . . . . .	157
	Recent Developments . . . . .	157
	Outlook . . . . .	159
	Risks . . . . .	161
	Policy Challenges . . . . .	162
	<b>Boxes</b>	
	2.1 Linkages between China and Sub-Saharan Africa. . . . .	163
	References . . . . .	171
	<b>Statistical Appendix</b> . . . . .	<b>175</b>



## Figures

1.1	Global activity . . . . .	5
1.2	Global trends and policy challenges . . . . .	6
1.3	United States . . . . .	7
1.4	United Kingdom . . . . .	8
1.5	Euro Area . . . . .	9
1.6	Japan . . . . .	10
1.7	China . . . . .	11
1.8	Implications of the European Central Bank's quantitative easing for global financial conditions . . . . .	12
B1.1.1	Negative interest rates in Europe: Context . . . . .	14
B1.1.2	Negative interest rates in Europe: Some consequences . . . . .	17
1.9	Implications of the European Central Bank's quantitative easing for developing countries . . . . .	20
1.10	Implications of launch of monetary tightening in the United States . . . . .	21
1.11	Developing countries' capital flows and borrowing costs . . . . .	22
1.12	Oil markets . . . . .	24
B1.2.2	Global growth and inflation around oil price declines . . . . .	27
B1.2.3	Financial market developments around oil price declines . . . . .	29
B1.2.4	The new oil map . . . . .	30
1.13	Oil price volatility and non-oil commodity prices . . . . .	31
1.14	Global trade . . . . .	32
1.15	Developing and emerging-market growth . . . . .	33
1.16	Terms of trade effect on GDP . . . . .	35
1.17	Developing country currencies . . . . .	36
1.18	Exchange rates and competitiveness in major emerging economies . . . . .	37
1.19	Inflation in developing countries . . . . .	38
1.20	Private debt in developing countries . . . . .	39
1.21	Risk of a rough awakening . . . . .	40
1.22	Emerging market credit ratings . . . . .	41
1.23	Risk of excessive U.S. dollar appreciation . . . . .	42
1.24	Risk of stagnation and deflation in the Euro Area . . . . .	43
1.25	Risk of a hard landing in China . . . . .	44
1.26	Monetary policy in developing countries . . . . .	45
1.27	Fiscal pressures . . . . .	46
1.28	Income convergence . . . . .	47
1.29	Structural reforms . . . . .	48
B1.3.1	Global unemployment rate . . . . .	49
B1.3.2	Unemployment rate in developing and advanced economies . . . . .	50

B1.3.3	Regional unemployment rate . . . . .	50
B1.3.4	Change in employment to population ratio . . . . .	50
B1.3.5	Labor force participation rate. . . . .	51
B1.3.6	Changes in unemployment rate and GDP growth in Great Recession vs. previous recessions in developing economies . . . . .	51
B1.3.7	Estimates of Okun's Law coefficients for advanced, emerging, and frontier market economies . . . . .	51
B1.3.8	Real GDP growth and change in unemployment rates in developing economies, 2000–14 . . .	52
B1.3.9	Estimated informal employment shares in selected countries, 2011 . . . . .	52
B1.3.10	Global average annual real wage growth. . . . .	52
B1.3.11	Real wage growth in selected developing economies. . . . .	53
B1.3.12	Enterprise Survey results on key business constraints, 2013 . . . . .	53
1.30	Fuel subsidies . . . . .	57
SF1.1	Conditions in advanced countries . . . . .	67
SF1.2	Explaining movements in U.S. bond yields: monetary and real shocks. . . . .	68
SF1.3	A smooth liftoff in light of past episodes? . . . . .	69
SF1.4	U.S. bond yields and capital flows during the taper tantrum . . . . .	70
SF1.5	Market liquidity. . . . .	71
SF1.6	Implications of monetary and real shocks on activity and financial markets in emerging markets. . . . .	72
SF1.7	Surging U.S. yields and capital inflows to emerging and developing countries . . . . .	73
SF1.8	Growth prospects in emerging and developing economies . . . . .	74
SF1.9	Debt, deficits and inflation in emerging markets: Oil exporters vs. oil importers . . . . .	75
SF1.10	Evolution of vulnerabilities in emerging markets since the taper tantrum. . . . .	76
SF1.11	Foreign currency exposure and corporate debt . . . . .	77
SF2.1	Growth in low-income countries . . . . .	94
SF2.2	Trends in commodity prices, exploration and discovery . . . . .	95
SF2.3	Commodity exploration, spending and discoveries in Africa . . . . .	96
SF2.4	Impact on growth, production, and exports. . . . .	97
SF2.5	Impact on investment . . . . .	98
SF2.6	Employment and poverty. . . . .	99
SF2.7	Public sector receipts and spending . . . . .	99
SF2.8	Commodity dependence: An Achilles heel. . . . .	100
SF2.9	Drivers of growth in low-income countries . . . . .	102
SF2.10	Growth prospects. . . . .	103
SF2.11	Vulnerabilities . . . . .	103
2.1	East Asia and Pacific Regional growth and performance in China . . . . .	110
2.2	Key exports . . . . .	111

2.3	Inflation and real exchange rates . . . . .	112
2.4	Debt . . . . .	113
2.5	Policy issues . . . . .	114
2.6	Russian Federation: Growth and oil price . . . . .	120
2.7	Selected economies, EMBI spreads . . . . .	120
2.8	Ukraine: Recent developments. . . . .	121
2.9	Selected economies: Exports by selected destinations (average 2011–14) . . . . .	121
2.10	Selected economies: Remittances inflows, 2014 . . . . .	122
2.11	Selected economies: Remittances inflows from Russia . . . . .	122
2.12	Selected economies: Central bank policy rates . . . . .	122
2.13	Selected economies: Inflation . . . . .	123
2.14	Selected economies: Inflation . . . . .	123
2.15	EU-Central and Southeastern Europe: Drivers of growth. . . . .	123
2.16	Selected economies: Real effective exchange rates . . . . .	125
2.17	Foreign currency exposure and foreign currency vulnerability indicators, 2013 . . . . .	126
2.18	Unemployment, 2013 . . . . .	127
2.19	Non-performing loans (NPL) ratios. . . . .	127
2.20	Net foreign liabilities, 2014 . . . . .	128
2.21	Regional GDP growth . . . . .	131
2.22	Prices of key commodity exports . . . . .	132
2.23	Export shares of key commodity exports, 2013 . . . . .	132
2.24	Average annual inflation—headline and core . . . . .	133
2.25	Monthly gross capital flows to LAC region . . . . .	133
2.26a	Exchange rate against U.S. dollar . . . . .	134
2.26b	Real effective exchange rates, . . . . .	134
2.27	Central bank policy rates . . . . .	134
2.28	Regional medium-term growth outlook. . . . .	135
2.29	Share of regional merchandise exports to the U.S., EU, and China, 2013 . . . . .	135
2.30	FDI into selected countries by source country, 2012 . . . . .	135
2.31	Consensus forecasts six years ahead, 2009–15 . . . . .	136
2.32	Federal Reserve Board Vulnerability Index, 2014 . . . . .	136
2.33	Overall fiscal balance as a share of GDP. . . . .	137
2.34	Share oil/gas revenue in total government budget, 2013 . . . . .	137
2.35	Global rankings on quality and extensiveness of infrastructure, 2014–15. . . . .	138
2.36	Oil production. . . . .	142
2.37	Oil revenues, 2014. . . . .	142
2.38	Nominal effective exchange rates . . . . .	143

2.39	Inflation . . . . .	143
2.40	Share of exports to GCC and Euro Area countries, 2013 . . . . .	145
2.41	Public debt and deficits, 2014 . . . . .	145
2.42	Unemployment rate and employment growth, 2013 . . . . .	146
2.43	Business climate: distance to frontier . . . . .	146
2.44	Growth in tourism arrivals . . . . .	146
2.45	India: Real GDP growth . . . . .	149
2.46	India: Industrial production and credit . . . . .	150
2.47	Export growth . . . . .	150
2.48	Goods trade balance . . . . .	151
2.49	Exchange rates against the U.S. dollar . . . . .	151
2.50	Nominal effective exchange rates . . . . .	151
2.51	Inflation . . . . .	152
2.52	Government finances . . . . .	152
2.53	Investment . . . . .	154
2.54	India: Impaired loans . . . . .	155
2.55	Non-performing loans . . . . .	155
2.56	Credit growth . . . . .	155
2.57	Fiscal vulnerability . . . . .	157
2.58	Commodity prices . . . . .	158
2.59	Nigerian naira . . . . .	158
2.60	Exchange rates . . . . .	159
2.61	Inflation . . . . .	159
2.62	Real effective exchange rates . . . . .	159
2.63	Sovereign bond spreads . . . . .	160
2.64	Eurobond issuance . . . . .	160
2.65	GDP growth outlook . . . . .	160
B2.1.1	Growth in Sub-Saharan Africa's trade flows, by partner, 2000–13 . . . . .	163
B2.1.2	Sub-Saharan Africa's trade flows with China, 2013 . . . . .	164
B2.1.3	Sub-Saharan Africa's commodity exports to major trading partners, 2013 . . . . .	164
B2.1.4	Cumulative Chinese foreign direct investment in Sub-Saharan Africa . . . . .	164
B2.1.5	Chinese and U.S. foreign direct investment in Africa . . . . .	165
B2.1.6	Chinese foreign direct investment in Africa, by sector, 2012 . . . . .	165
B2.1.7	SSA manufacturing exports to China . . . . .	165
B2.1.8	Distribution of aid and development financing flows from China . . . . .	165
B2.1.9	Chinese development assistance and bilateral aid from OECD countries to Sub-Saharan Africa . . . . .	166

B2.1.10	Development assistance to Sub-Saharan Africa, 2013. . . . .	166
B2.1.11	Bilateral aid from OECD countries to Sub-Saharan Africa, by sector, 2013. . . . .	167
B2.1.12	Contributions to growth in gross domestic product in Sub-Saharan Africa . . . . .	167
B2.1.13	Effect of slower growth in China on South Africa . . . . .	168

## Tables

1.1	The global outlook in summary . . . . .	4
SF1.1	Studies on the effects of sudden stops . . . . .	81
SF1.2	Studies on the implications of the taper tantrum . . . . .	83
SF2.1	Low-income country growth forecasts . . . . .	104
2.1	East Asia and Pacific forecast summary . . . . .	117
2.2	East Asia and Pacific country forecasts . . . . .	117
2.3	Europe and Central Asia forecast summary . . . . .	129
2.4	Europe and Central Asia country forecasts . . . . .	130
2.5	Latin America and the Caribbean forecast summary . . . . .	139
2.6	Latin America and the Caribbean country forecasts . . . . .	140
2.7	Middle East and North Africa forecast summary . . . . .	147
2.8	Middle East and North Africa economy forecasts. . . . .	148
2.9	South Asia forecast summary . . . . .	156
2.10	South Asia country forecasts . . . . .	156
2.11	Sub-Saharan Africa forecast summary . . . . .	169
2.12	Sub-Saharan Africa country forecasts . . . . .	170
A.1	GDP growth . . . . .	177



# Foreword

Changes, which in the long-run steady-state, may be good for the global economy, can cause strain and even a slowdown in the short run brought about by the challenges of transition. This is the message that underlies much of the June issue of the World Bank Group's *Global Economic Prospects*.

In addition to charting, as usual, our detailed outlook for the global economy and for each of the world's developing regions, this report goes on to analyze two big challenges, associated with two transitions, currently confronting policy makers the world over and especially in emerging economies and low-income countries: the impact of the looming monetary tightening cycle in the United States, and the repercussions of low commodity prices.

Global growth has yet again disappointed, especially but not surprisingly in oil exporters and some large developing countries. The reason for our short-term forecast being somewhat downbeat is the expected strain of the transitions, even though the trends bode well for the medium and long terms.

Under the baseline scenario, the first U.S. monetary policy rate increase since the global financial crisis will dampen capital flows to developing countries modestly and gradually and is not expected to cause any major turbulence. This is not to deny that the first rate increase will likely cause an increase in global borrowing cost, and will be accompanied by greater investor discrimination between countries based on their vulnerabilities and structural strengths.

Commodity-exporting developing countries may be vulnerable to shifting investor sentiment since sharply lower oil prices from a year ago have already begun to reduce activity in most of them. Under a stress scenario, some countries might struggle to

adjust to the combination of these two shocks. Although resilient thus far, low-income countries could weaken over the medium term as investment in the resource sector slows. The benefits from low oil prices to growth in oil importers have thus far been slow to materialize, but some oil importers have seen their vulnerabilities decline as inflation has slowed and fiscal or current account deficits have narrowed, boosting their growth potential.

The global economy is expected to grow 2.8 percent in 2015, slightly less than forecast in January, before strengthening moderately to 3.2 percent in 2016–17. Developing country growth, buffeted by falling commodity prices, the stronger dollar, and tightening financial conditions, has been revised downward to 4.4 percent in 2015 but is expected to pick up momentum and reach 5.3 percent in 2016–17.

Risks to the outlook remain tilted to the downside, as new challenges have emerged even as preexisting ones have become more balanced. In particular, tighter global financial conditions could combine with deteriorating growth prospects, especially in commodity-exporting countries, to raise the possibility of greater financial stress. The strengthening dollar could also slow the U.S. economy more than expected earlier, leading to some global strain.

In the current environment, there will be a premium on structural reforms in developing countries to ensure a smooth adjustment to low commodity prices and gradually tightening financial conditions. Ambitious reform agendas will signal to investors that authorities are serious about promoting long-term growth prospects. Lower commodity prices underscore the importance of diversification in commodity-dependent economies.

*Kaushik Basu*  
*Chief Economist and Senior Vice President*  
*The World Bank*





# Acknowledgments

*This World Bank Group Flagship Report is a product of the Prospects Group in the Development Economics Vice Presidency. The project was managed by Ayhan Kose and Franziska Ohnsorge, under the general guidance of Kaushik Basu.*

Several people contributed substantively to the report. Chapter 1 (Global Outlook) was prepared by a team led by Franziska Ohnsorge and Marc Stocker and included Tehmina Khan and Dana Vorisek. Box 1.1 (Negative Rates) was prepared by Carlos Arteta and Marc Stocker with contributions from Eung Ju Kim and Bryce Quillin. Box 1.2 (Oil Markets) was prepared by John Baffes and Marc Stocker. Box 1.3 (Labor Markets) was prepared by Bryce Quillin. The Special Feature 1 was prepared by team led by Carlos Arteta, Ayhan Kose, Franziska Ohnsorge, and Marc Stocker and included Derek Chen, Raju Huidrom, Ergys Islamaj, Eung Ju Kim and Tianli Zhao. Research assistance was provided by Jiayi Zhang and Trang Nguyen. The Special Feature 2 was prepared by Tehmina Khan (Section A) and Gerard Kambou (Section B). Chapter 2 (Regional Outlooks) was coordinated by Franziska Ohnsorge. The authors were Ekaterine Vashakmadze (East Asia and Pacific), Allen Dennis and Ekaterine Vashakmadze with contributions from Jungjin Lee (Europe and Central Asia), Derek Chen (Latin America and the Caribbean), Damir Cosic (Middle East and North Africa), Tehmina Khan (South Asia), and Gerard Kambou (Sub-Saharan Africa). Ajai Chopra, Kevin Clinton, and David Robinson provided consultancy support. Editorial review was provided by Mark Felsenthal and Graeme Littler.

John Baffes, Damir Cosic, and Shane Streifel provided inputs on commodity markets, and Eung Ju Kim and Marc Stocker on financial markets. Modeling and data work were produced by Thi Thanh Thanh Bui, Xinghao Gong, Jungjin Lee, Trang Thi Thuy Nguyen, Kiwako Sakamoto, and Jiayi Zhang.

The online publication was produced by a team including Graeme Littler, Praveen Penmetsa, Katherine Rollins, with technical support from Marjorie Patricia Bennington, Ugendran Machakkalai and Gayathri Natrajan.

Indira Chand, Merrell Tuck-Primdahl, and Phil Hay managed media relations and the dissemination. Maria Hazel Macadangdang, Keisha Lynn McGee, Katherine Rollins, and Ann-Marie Wildman produced the hard copy publication, in collaboration with Aziz Gökdemir and Patricia Katayama.

Several reviewers offered extensive advice and comments. These included: Enrique Aldaz-Carroll, Marina Bakanova, Kevin Barnes, Kaushik Basu, Hans Anand Beck, Kirida Bhaopichitr, Gregor Binkert, Genevieve Boyreau, Cesar Calderon, Jose Lopez Calix, Vandana Chandra, Shubham

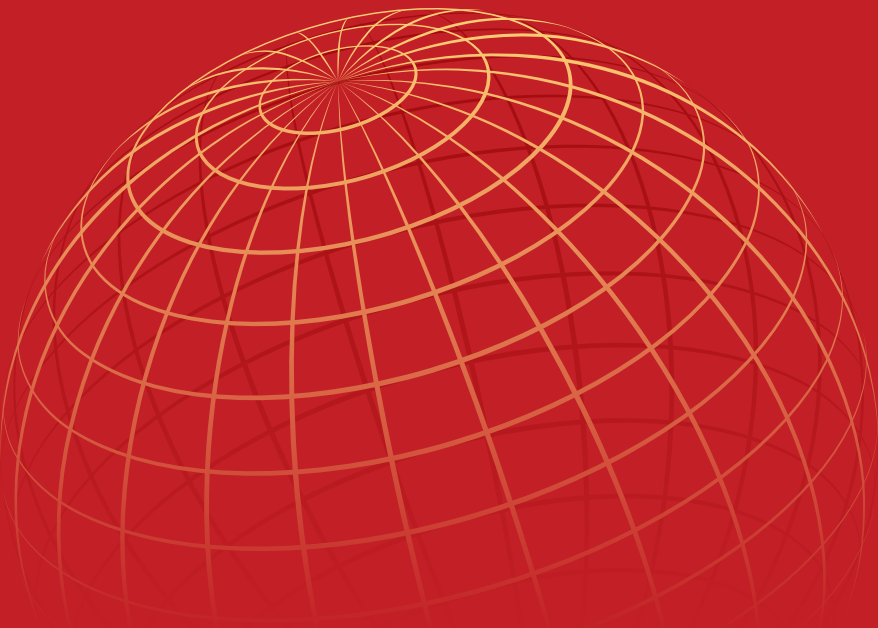
Chaudhury, Guang Zhe Chen, Marcel Chistruga, Ajai Chopra, Karl Kendrick Tiu Chua, Punam Chuhan-Pole, Kevin Clinton, Tito Cordella, Somneuk Davading, Simon Davies, Agim Demukaj, Shantayanan Devarajan, Alain W. D'Hoore, Tatiana Didier, Viet Dinh, Makhtar Diop, Ndiame Diop, Doerte Doemeland, Bakyt Dubashov, Olga Emelyanova, Marianne Fay, Erik Feyen, Cornelius Fleischhaker, Frederico Gil Sander, Indermit S. Gill, Marcelo Giugale, Chorching Goh, Anastasia Golovach, Gloria M. Grandolini, Poonam Gupta, Gohar Gyulumyah, Kiryl Haiduk, Birgit Hansl, Zahid Hasnain, Marco Hernandez, Yumeka Hirano, Sandra Hlivnjak, Bert Hofman, Vivian Y. N. Hon, Elena Ianchovichina, Stella Illieva, Ivailo Izvorski, Evans Jadotte, Saroj Kumar Jha, Markus Kitzmuller, Fritzi Koehler-Geib, Christos Kostopoulos, Auguste Tano Kouame, Ahmed Kouchouk, Aurelien Kruse, Jean Pierre Lacombe, Melanie Laloum, Daniel Lederman, Taehyun Lee, Tenzin Lhaden, Joseph Louie C. Limkin, John Litwack, Julio Ricardo Loayza, Rohan Longmore, Mark R. Lundell, Sodeth Ly, Dorsati Madani, Sanja Madzarevic-Sujster, William F. Maloney, Paul Mariano, Miguel Eduardo Martin, Khalid El Massanoui, Ernesto May, Elitza Mileva, Saiyed Shabih Ali Mohib, Lilli Mottaghi, Maria Bru Munoz, Zafer Mustafaoglu, Evgenij Najdov, Gaurav Nayyar, Antonio Nucifora, Rei Odawara, Samuel K.E. Otoo, Lucy Pan, John Panzer, Catalin Pauna, Samuel Jaime Pienknagura, Miria A. Pigato, Ruslan Piontkivsky, Catriona Mary Purfield, Rong Qian, Mahwish Qureshi, Mohammad Zia M. Qureshi, Martin Rama, Luc Razafimandimby, Elliot Joseph Riordan, David Robinson, David Rosenblatt, Michele Ruta, Pablo Saavedra, Seynabou Sakho, Ilyas Sarsenov, Cristina Savescu, Philip Schellekens, Sergio Schmukler, Lazar Sestovic, Smriti Seth, Sudhir Shetty, Saurabh Shome, Peter Siegenthaler, Alex Sienaert, Karlis Smits, Nikola Spatafora, Shane Streifel, Ashley Taylor, Mark Roland Thomas, Theo David Thomas, Hans Timmer, Augusto de la Torre, Sergei Ulatov, Ekaterina Ushakova, Robert Utz, Rogier J. E. Van Den Brink, Ralph Van Doorn, Sona Varma, Aristomene Varoudakis, Julio Velasco, Mathew Verghis, Gallina Andronova Vincelette, Adrien Vogt-Schillb, Dana Vorisek, Ekaterina Vostroknutova, Kei-Mu Yi, Ayberk Yilmaz, Hakan Yilmazkuday, Puri Shen Yoong, Albert Zeufack, Luan Zhao, May Thet Zin, and Johannes Zutt. Regional projections and write-ups were produced in coordination with country teams, country directors, and the offices of the regional chief economists.



# Abbreviations

ASEAN	Association of Southeast Asian Nations
bbl	barrel
CPI	Consumer Price Index
EAP	East Asia and Pacific
ECA	Europe and Central Asia
ECB	European Central Bank
EITI	Extractive Industries Transparency Initiative
EM	emerging market
EMBI	Emerging Markets Bond Index
FDI	foreign direct investment
FOMC	Federal Open Market Committee
FRB	Federal Reserve Board
FY	fiscal year
GCC	Gulf Cooperation Council
GDP	gross domestic product
CDS	credit default swap
GEP	Global Economic Prospects
GST	Goods and Service Tax
IMF	International Monetary Fund
LAC	Latin America and the Caribbean
LIC	low-income country
MENA	Middle East and North Africa
NPL	nonperforming loan
OECD	Organisation for Economic Co-operation and Development
OPEC	Organization of the Petroleum Exporting Countries
RHS	right-hand side (in figures)
SAR	South Asia
SSA	Sub-Saharan Africa
VAR	vector auto regression
VAT	value added tax
WDI	World Development Indicators
WEO	World Economic Outlook





CHAPTER 1

# GLOBAL OUTLOOK

The Global Economy in Transition



## Summary and Key Messages

*Global growth is expected to be 2.8 percent in 2015, lower than anticipated in January. Growth is expected to pick up to 3.2 percent in 2016–17, broadly in line with previous forecasts. Developing economies are facing two transitions. First, the widely expected tightening of monetary conditions in the United States, along with monetary expansion by other major central banks, has contributed to broad-based appreciation in the U.S. dollar and is exerting downward pressure on capital flows to developing countries. Many developing-country currencies have weakened against the U.S. dollar, particularly those of countries with weak growth prospects or elevated vulnerabilities. In some countries, this trend has raised concerns about balance sheet exposures in the presence of sizeable dollar-denominated liabilities. Currency depreciations have been significantly less in trade-weighted terms, partly due to a weakening euro and yen, thus offering only modest prospects for competitiveness gains to boost exports. Second, despite some pickup in the first quarter of 2015, lower oil prices are having an increasingly pronounced impact. In oil-importing countries, the benefits to activity have so far been limited, although they are helping to reduce vulnerabilities. In oil-exporting countries, lower prices are sharply reducing activity and increasing fiscal, exchange rate, or inflationary pressures. Risks remain tilted to the downside, with some pre-existing risks receding but new ones emerging.*

Global growth hit a soft patch at the start of the year, but remains broadly on track to reach about 2.8 percent in 2015, somewhat below earlier forecasts, with a modest pickup in 2016–17 (Table 1). However, important shifts are emerging. The recovery in high-income countries is expected to gather momentum, while a broad-based slowdown appears to be underway in developing countries this year (Figure 1.1). Looking forward, global activity should be supported by continued low commodity prices and generally still-benign financing conditions, notwithstanding the expected modest tightening in U.S. monetary policy. Among major economies, growth in the Euro Area and Japan is picking up, and the United States should continue to expand at a robust pace despite recent setbacks, while the slowdown in China is proceeding as anticipated in January. High-income countries are expected to grow by 2 percent in 2015 and 2.3 percent in 2016–17.

Developing countries are facing two transitions, as they adjust to prospects of low commodity prices over the medium-term and tighter financial conditions ahead. Oil prices appear to have found some support, upon evidence of a sharp decrease in unconventional oil production capacity in the United States, but are likely to remain low. Other commodity prices continue to be soft, on weak demand as well as ample supplies. As a result, in commodity-exporting countries, especially those with limited reserve and fiscal buffers, activity has slowed more than anticipated, currencies have weakened, and domestic and external vulnerabilities have grown.

Shrinking current account surpluses among oil-exporting countries have narrowed global current account imbalances. In contrast, commodity-importing countries have benefited from declining vulnerabilities, as current account and fiscal balances have strengthened and inflation has fallen. Offset by country-specific headwinds, low oil prices have not yet been fully reflected in stronger activity in oil-importing countries. Compared with 2014, growth in developing countries is expected to slow to 4.4 percent in 2015, 0.4 percentage point less than anticipated in January, before rising to 5.3 percent in 2016–17. Growth prospects for low-income countries (LICs) remain robust, above 6 percent in 2015–17. Among several commodity exporters, the negative impact of low commodity prices is expected to be offset by strong public investment.

In a second transition, developing countries will be at heightened risk of depreciation amid a gradual tightening of financial conditions, albeit from very accommodative levels, and moderating capital flows. The announcement of quantitative easing by the European Central Bank (ECB) in January, continued monetary easing in Japan, and the prospect of an interest rate increase in the United States have been associated with a broad-based appreciation of the U.S. dollar and some financial market volatility (Figure 1.2). Currency depreciations have been largest in developing countries with deteriorating growth prospects—most notably commodity exporters—and elevated external vulnerabilities. Currency depreciations against the U.S. dollar have raised concerns about U.S. dollar exposures in sov-

**TABLE 1.1** The global outlook summary

	2012	2013	2014e	2015f	2016f	2017f	2015f	2016f	2017f
	(percent change from previous year, except interest rates)						(percent point change from January 2015 GDP)		
<b>REAL GDP<sup>1</sup></b>									
<b>World</b>	<b>2.4</b>	<b>2.5</b>	<b>2.6</b>	<b>2.8</b>	<b>3.3</b>	<b>3.2</b>	<b>-0.2</b>	<b>0.0</b>	<b>0.0</b>
<b>High income</b>	<b>1.4</b>	<b>1.4</b>	<b>1.8</b>	<b>2.0</b>	<b>2.4</b>	<b>2.2</b>	<b>-0.2</b>	<b>0.0</b>	<b>0.0</b>
United States	2.3	2.2	2.4	2.7	2.8	2.4	-0.5	-0.2	0.0
Euro Area	-0.7	-0.4	0.9	1.5	1.8	1.6	0.4	0.2	0.0
Japan	1.7	1.6	0.0	1.1	1.7	1.2	-0.1	0.1	0.0
United Kingdom	0.7	1.7	2.8	2.6	2.6	2.2	-0.3	0.0	0.0
Russia	3.4	1.3	0.6	-2.7	0.7	2.5	0.2	0.6	1.4
<b>Developing countries</b>	<b>4.9</b>	<b>5.1</b>	<b>4.6</b>	<b>4.4</b>	<b>5.2</b>	<b>5.4</b>	<b>-0.4</b>	<b>-0.1</b>	<b>0.0</b>
<b>East Asia and Pacific</b>	<b>7.4</b>	<b>7.1</b>	<b>6.9</b>	<b>6.7</b>	<b>6.7</b>	<b>6.6</b>	<b>0.0</b>	<b>0.0</b>	<b>-0.1</b>
China	7.7	7.7	7.4	7.1	7.0	6.9	0.0	0.0	0.0
Indonesia	6.0	5.6	5.0	4.7	5.5	5.5	-0.5	0.0	0.0
Thailand	7.3	2.8	0.9	3.5	4.0	4.0	0.0	0.0	-0.5
<b>Europe and Central Asia</b>	<b>1.9</b>	<b>3.7</b>	<b>2.4</b>	<b>1.8</b>	<b>3.4</b>	<b>3.6</b>	<b>-1.2</b>	<b>-0.2</b>	<b>-0.4</b>
Kazakhstan	5.0	6.0	4.3	1.7	2.9	4.1	-0.1	-0.3	-0.6
Turkey	2.1	4.2	2.9	3.0	3.9	3.7	-0.5	0.2	-0.2
Romania	0.6	3.5	2.9	3.0	3.2	3.5	0.1	0.0	-0.4
<b>Latin America and the Caribbean</b>	<b>2.9</b>	<b>2.7</b>	<b>0.9</b>	<b>0.4</b>	<b>2.0</b>	<b>2.8</b>	<b>-1.3</b>	<b>-0.9</b>	<b>-0.5</b>
Brazil	1.8	2.7	0.1	-1.3	1.1	2.0	-2.3	-1.4	-0.7
Mexico	4.0	1.4	2.1	2.6	3.2	3.5	-0.7	-0.6	-0.3
Argentina	0.8	2.9	0.5	1.1	1.8	3.0	1.4	0.2	-0.1
<b>Middle East and North Africa</b>	<b>1.3</b>	<b>0.5</b>	<b>2.2</b>	<b>2.2</b>	<b>3.7</b>	<b>3.8</b>	<b>-0.3</b>	<b>0.7</b>	<b>0.3</b>
Egypt <sup>2</sup>	2.2	2.1	2.2	4.2	4.5	4.8	0.7	0.7	0.8
Iran	-6.6	-1.9	3.7	1.0	2.0	2.0	0.1	1.0	-0.2
Algeria	3.3	2.8	4.1	2.6	3.9	4.0	-0.7	0.4	0.5
<b>South Asia</b>	<b>5.4</b>	<b>6.3</b>	<b>6.9</b>	<b>7.1</b>	<b>7.3</b>	<b>7.5</b>	<b>1.0</b>	<b>0.7</b>	<b>0.7</b>
India <sup>2</sup>	5.1	6.9	7.3	7.5	7.9	8.0	1.1	0.9	1.0
Pakistan <sup>2,3</sup>	3.5	4.4	5.4	6.0	3.7	4.5	1.4	-1.1	-0.4
Bangladesh <sup>2</sup>	6.0	6.1	5.6	6.3	6.7	6.7	0.1	0.2	-0.3
<b>Sub-Saharan Africa</b>	<b>4.1</b>	<b>4.2</b>	<b>4.6</b>	<b>4.2</b>	<b>4.6</b>	<b>5.0</b>	<b>-0.4</b>	<b>-0.3</b>	<b>-0.1</b>
South Africa	2.5	1.9	1.5	2.0	2.1	2.4	-0.2	-0.4	-0.3
Nigeria	4.3	5.4	6.2	4.5	5.0	5.5	-1.0	-0.8	-0.7
Angola	8.4	6.8	4.4	4.5	3.9	5.1	-0.8	-1.1	-0.1
<b>MEMORANDUM ITEMS</b>									
<b>Real GDP</b>									
World (2010 PPP weights)	3.1	3.3	3.4	3.4	3.9	4.0	-0.2	-0.1	0.0
OECD	1.2	1.3	1.7	2.1	2.4	2.1	-0.2	0.0	0.0
Non-OECD	3.8	2.6	2.2	0.9	2.4	3.2	0.0	0.0	0.3
Developing countries excluding BRICS	3.5	4.3	3.9	4.3	4.6	4.6	-0.7	-0.3	-0.5
BRICS	5.4	5.4	5.0	4.7	5.5	5.6	-0.4	0.0	0.0
Low-income countries	6.5	6.2	6.2	6.2	6.6	6.6	0.1	0.2	0.1
World trade volume <sup>4</sup>	3.1	3.3	3.6	4.4	4.9	4.9	-0.1	0.1	0.1
Oil price <sup>5</sup>	1.0	-0.9	-7.5	-39.7	9.6	5.6	-7.8	4.7	0.9
Non-oil commodity price index	-8.6	-7.2	-4.6	-11.0	1.2	1.3	-9.9	1.0	1.0
Manufactures unit export value <sup>6</sup>	-1.2	-1.4	-0.2	-0.2	1.9	1.7	0.0	0.0	0.0
6-month U.S. LIBOR interest rate (percent) <sup>7</sup>	0.7	0.4	0.3	0.4	...	...	...	...	...
6-month Euro LIBOR interest rate (percent) <sup>7</sup>	0.8	0.3	0.3	0.1	...	...	...	...	...
<b>International capital flows to developing countries (% of GDP)<sup>8</sup></b>									
<b>Developing countries</b>	<b>5.0</b>	<b>5.9</b>	<b>5.4</b>	<b>5.1</b>	<b>5.0</b>	<b>4.8</b>	<b>-0.4</b>	<b>-0.3</b>	<b>...</b>
East Asia and Pacific	4.6	6.4	5.7	5.1	4.9	4.6	-0.8	-0.6	...
Europe and Central Asia	8.0	7.5	5.0	5.0	5.8	6.5	-1.0	-0.4	...
Latin America and the Caribbean	5.4	5.9	5.9	5.4	5.5	5.2	-0.5	-0.2	...
Middle East and North Africa	1.9	2.5	2.1	2.2	2.1	2.2	0.4	0.2	...
South Asia	5.7	4.5	5.8	5.8	5.6	5.5	0.5	0.3	...
Sub-Saharan Africa	5.4	5.2	4.3	4.2	4.0	3.9	-0.5	-0.8	...

Source: World Bank.

Notes: PPP = purchasing power parity; e = estimate; f = forecast.

World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not differ at any given moment in time.

1. Aggregate growth rates calculated using constant 2010 U.S. dollars GDP weights.

2. In keeping with national practice, data for Bangladesh, Egypt, India, and Pakistan are reported on a fiscal year basis in table 1.1. Aggregates that depend on these countries are calculated using data compiled on a calendar year basis. 2014 data for Bangladesh show growth in 2014-15.

3. GDP data for Pakistan are based on market prices.

4. World trade volume for goods and non-factor services.

5. Simple average of Dubai, Brent, and West Texas Intermediate.

6. Unit value index of manufactured exports from major economies, expressed in U.S. dollars.

7. The 2015f rates are the average of daily interest rates up to latest available data.

8. Balance of payments data for net capital inflows of foreign direct investment, portfolio investment, and other investment (BPM6).



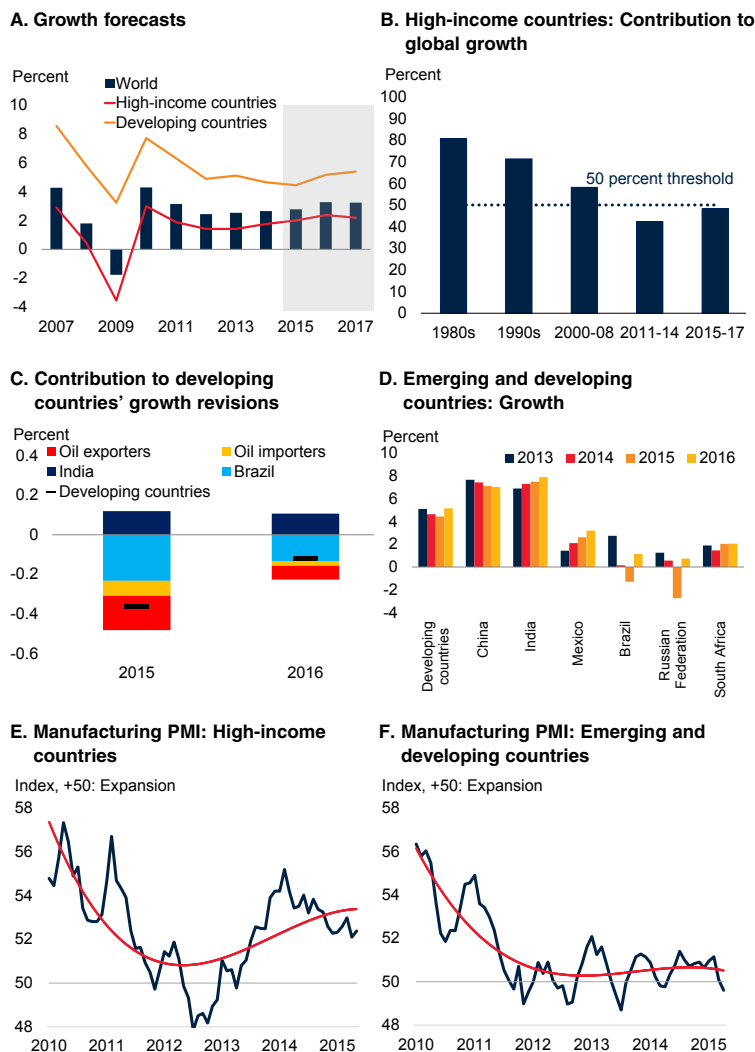
foreign and corporate balance sheets in some countries, especially those with rapid post-crisis credit growth. Since trade exposures tend to be diversified, depreciations have been considerably more modest, if not negligible, in trade-weighted terms for most developing countries and may not deliver significant competitiveness gains. With the gradual tightening in U.S. monetary policy likely to start later in 2015, capital flows are expected to ease and overall financial conditions for developing countries to tighten modestly.

The transitions to lower commodity prices and weaker currencies are having diverging inflationary consequences. In oil-importing countries and oil-exporting countries with fixed exchange rates, headline inflation has generally slowed on falling energy and transport prices, although core inflation has remained broadly stable (Figure 1.2). This disinflationary effect will be transitory as commodity prices settle around lower equilibrium levels. It will dissipate in 2016 unless lower inflation expectations become entrenched after several months of negative or below-target inflation. Falling inflation expectations would cause challenges in countries where inflation is already very low, especially where this would heighten the risk of deflation. In contrast, in many oil-exporting countries with flexible exchange rates, the pass-through of exchange rate depreciation has lifted inflation.

Low oil prices, set against the prospect of gradually tightening global financial conditions, raises diverging policy challenges and opportunities. In many oil-importing countries, lower inflation and shrinking fiscal and external vulnerabilities have created space for central banks to cut rates to support weak activity. In countries with large fuel subsidies and low energy taxation, lower oil prices also present an opportunity for subsidy and tax reform: the fiscal windfall can be used to re-build buffers against future cyclical downturns, or to expand spending on infrastructure investment and poverty-reducing activities. In oil-exporting countries, in contrast, depreciation pressures and rising inflation have narrowed central banks' room for maneuver. Several countries, faced with a policy dilemma, have raised policy rates, despite slowing growth, to defend exchange rates or reduce the risks of financial instability. In some cases, higher rates have coincided with procyclical fiscal tightening as commodity-related revenues have fallen. In most developing countries,

**FIGURE 1.1 Global activity**

*The global economy is growing somewhat more slowly than expected, with disappointments in developing countries, especially in oil exporters and Brazil. Forecasts have been revised upwards in the Euro Area and India, but downwards in the United States, Brazil and oil-exporting countries. As a result, growth in the BRICS is increasingly diverging.*



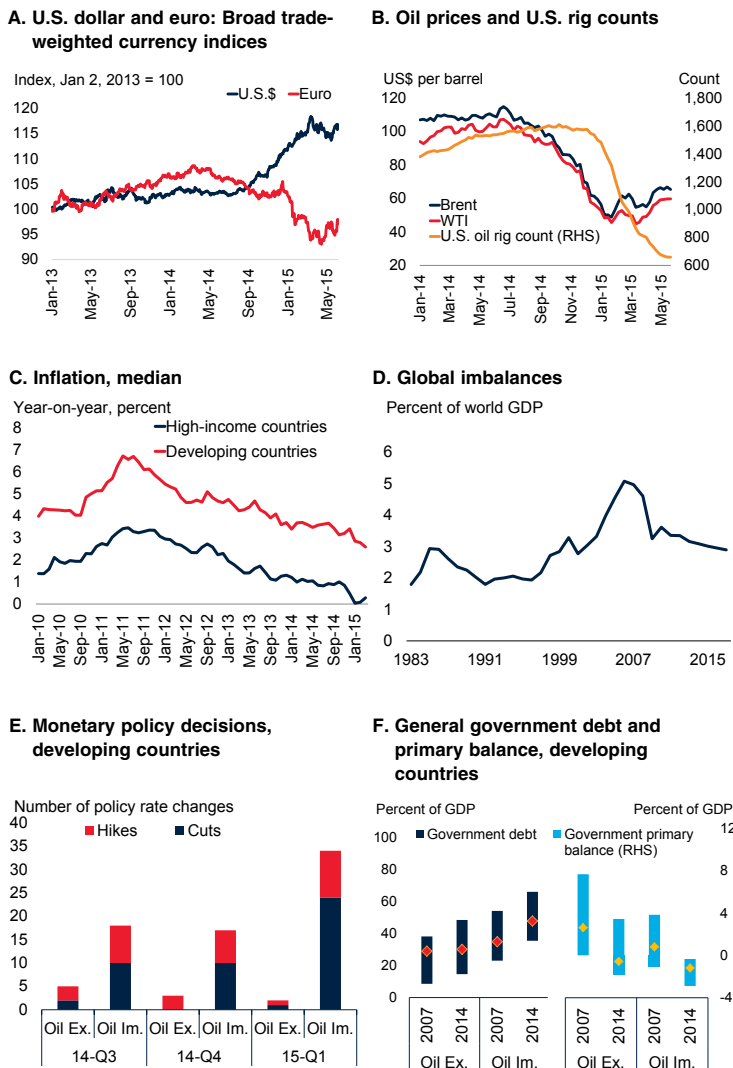
Sources: Haver Analytics; World Bank.  
 A. Shaded areas indicate forecasts.  
 C. Oil importers exclude Brazil, China, and India.  
 E. F. The red line shows the trend. The latest observation is May 2015. PMI = Purchasing Managers' Index.

the growth slowdown underway is a reminder of the need for structural reforms, including to promote diversification beyond commodity exports.

Low oil prices should generally benefit the poor, since more than 70 percent of the world's poor live in oil-importing countries. In general, as food prices respond to falling energy input costs, the majority of poor households in low-income countries should eventually enjoy rising real incomes since they tend to be net food buyers. However, a number of oil

## FIGURE 1.2 Global trends and policy challenges

Diverging monetary policy in major high-income countries has contributed to a broad-based dollar appreciation. Oil prices appear to have found a floor as unconventional supplies have begun to adjust, but are expected to remain low and have helped reduce inflation pressures and current account imbalances. Depreciations and low commodity prices present monetary and fiscal policy challenges.



Sources: World Bank; Bloomberg; Baker Hughes; International Monetary Fund.

A. The latest observation is June 05, 2015.

B. The latest observation is May 22, 2015.

C. The latest observation is March 2015. Data for 55 high-income countries (data for 45 available in March 2015) and 120 developing countries (data for 89 available in March 2015).

D. Defined as the sum of absolute current account positions for 120 countries as a percent of global GDP.

E. "Oil Ex." stands for oil-exporting countries; "Oil Im." stands for oil-importing countries.

F. Bar illustrates interquartile range. Dot shows median

exporting countries account for a significant proportion of the poor population and their livelihoods may come under pressure as growth slows.

Global risks to growth remain tilted to the downside. Deflation risks in the Euro Area remain but have receded as inflation expectations have picked

up. The beneficial effects of lower commodity prices on activity may yet materialize more strongly than currently expected. However, new risks have arisen. The likelihood of disruptive exchange rate adjustments in developing countries may have increased, as market expectations have continued to differ from those of U.S. Federal Reserve policy makers. In addition, U.S. growth may turn out to be more fragile than anticipated and slower than expected as a result of the broad-based dollar appreciation.

## Recent Developments and Outlook in Major Economies

Divergences across major economies will narrow in 2015-16 as growth plateaus in the United States and strengthens in the Euro Area and Japan. Lower oil prices will support consumer spending and hold inflation at record lows in the short term, but these effects will wane by 2016. Activity in China will continue to decelerate modestly in line with expectations, with the slowdown buffered by scaled-up monetary and fiscal accommodation.

High-income countries are expected to grow at 2.0 percent in 2015 (compared with 1.8 percent in 2014) and 2.3 percent, on average, in 2016-17. The expected growth pickup reflects the recovery in the Euro Area, continued robust activity in the United States, and increased traction from Japan's monetary, fiscal, and structural policy efforts.

In the **United States**, activity stalled at the start of the year, partly as a result of another cold winter, disruptions to port activity, sharp cutbacks in capital expenditures in the oil and gas industry and residual calendar effects. These factors are expected to dissipate, resulting in a rebound in activity later in 2015, but a strong U.S. dollar will continue to weigh on exports. For example, the almost 15 percent dollar appreciation in trade-weighted terms between mid-2014 and March 2015 has been estimated to reduce growth by as much as  $\frac{3}{4}$  percentage point this year (Laforte and Roberts 2014). Driven predominantly by private consumption, growth should strengthen modestly to 2.7 percent in 2015 and further to 2.8 percent in 2016, before slowing towards potential growth in 2017 (Figure 1.3). The unemployment rate is expected to fall to 5.2 percent by end-2015, below the level at the start of the previous monetary tightening cycle in 2004 and close to estimates of

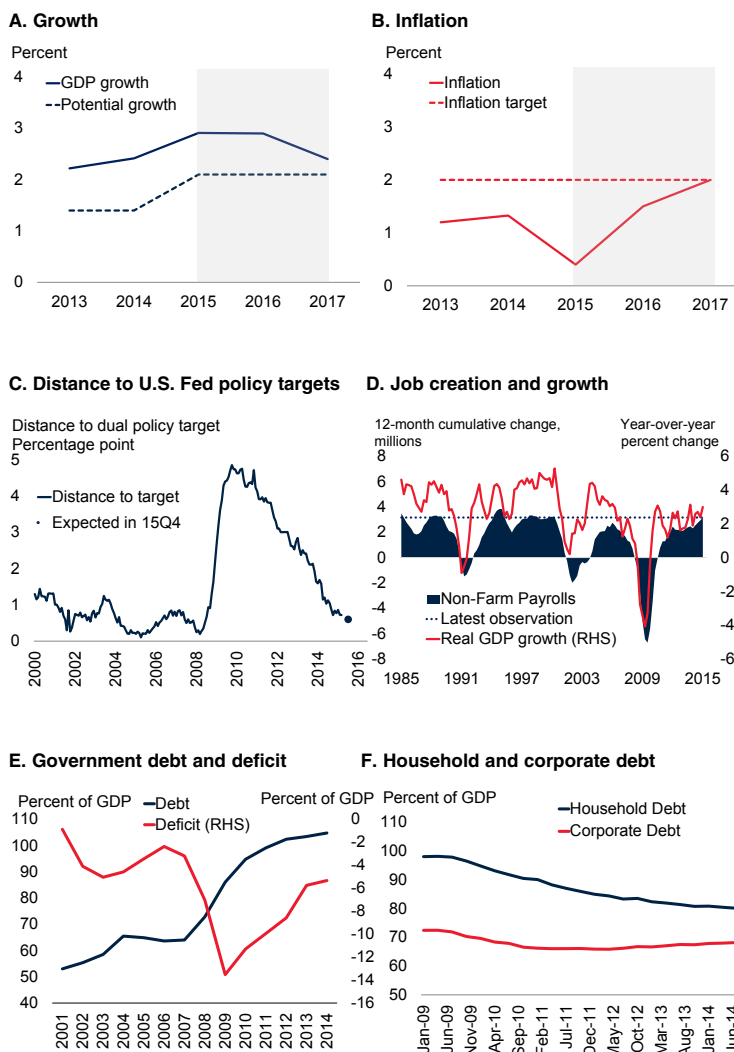
its structural level. The labor force participation rate is predicted to remain broadly unchanged at current low levels, as a return of discouraged workers is offset by the ongoing retirement of the sizeable baby-boomer cohort. Sharply lower oil prices are supporting household purchasing power (especially in lower-income households). While household saving rates initially increased, real income gains from lower energy bills are expected to continue lifting consumption in the remainder of 2015. This will help mitigate the cuts in capital expenditures in the energy sector that will dampen private sector investment in 2015.

Overall, policy in the United States is expected to remain accommodative. The fiscal stance should be broadly neutral, although unresolved discussions about legal caps on government borrowing and tax and entitlement reform are potential disruptions. As the economy closes in towards the employment and inflation objectives of the Federal Reserve's dual mandate later in 2015, a very gradual monetary tightening cycle is expected to begin. Long-term interest rates, however, would remain low. Falling oil prices and a strengthening U.S. dollar have pushed headline inflation temporarily below zero in the first quarter of 2015. Core inflation is projected to stay below the Fed's 2 percent target until the end of the year, but gradually increase towards it during 2016. The current account deficit is expected to widen modestly as the real dollar appreciation increasingly encourages imports and discourages exports.

The recovery in the **United Kingdom** remains on track despite mixed data in the first quarter, including indications of weak construction and manufacturing activity. Growth is expected to average 2.6 percent in 2015, slightly lower than in 2014 (Figure 1.4). Lower oil prices, robust job creation and rising wages will continue to bolster consumer spending. Growth should, however, gradually slow towards its potential rate by 2017, as spare capacity is absorbed. Headline inflation turned negative in the first quarter of 2015, due to falling energy prices, and will likely stay below 1 percent until end-2015. As these temporary effects unwind, inflation is expected to move closer to the 2 percent target rate towards the end of 2016. The Bank of England is expected to implement its first post-crisis policy rate increase in the first half of 2016. The strengthening resilience of U.K. bank balance sheets (Bank of England 2014) has allowed the government to begin to unwind its support measures and reduce

**FIGURE 1.3 United States**

As a result of sustained job creation, the unemployment rate is approaching structural levels and inflation is expected to move closer to the Federal Reserve's target in 2016. This, together with broadly neutral fiscal policy and healing household balance sheets, should support above-potential growth in 2015-16.



Sources: World Bank; International Monetary Fund; Congressional Budget Office (2015); Haver Analytics; Federal Reserve St. Louis; Bank for International Settlements.

A. The Congressional Budget Office estimates and projects potential output growth by adjusting observed inputs (labor force and total factor productivity) for the influence of the business cycle. The inputs' cyclical components are estimated by means of an analysis of the relationship between each input and the unemployment gap (that is, the gap between the actual unemployment rate and CBO's estimate of the underlying long-term rate of unemployment).

B. Inflation is the annual average change in the consumption deflator.

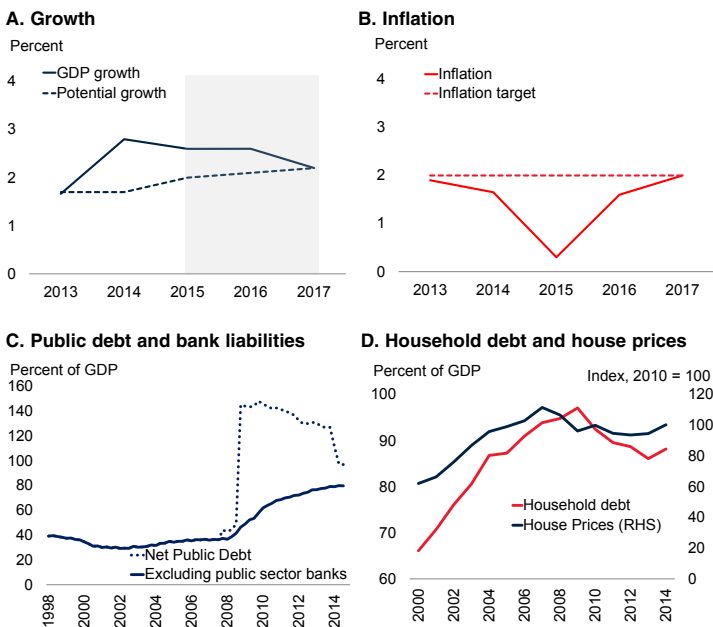
C. Distance to target is equal to  $(\pi - \pi^*)^2 + (\mu - \mu^*)^2$  where  $\pi$  is inflation,  $\pi^*$  is the target rate of inflation in percentage points,  $\mu$  is the unemployment rate and  $\mu^*$  is the long-run average rate of unemployment (Bullard 2014).

D. The latest observation is 2015Q1.

net public debt. Financial sector risks have shifted as financial activity migrated to less-regulated nonbanks since the global financial crisis. However, the Bank of England's Financial Policy Committee are now monitoring risks across the whole sector.

## FIGURE 1.4 United Kingdom

In the United Kingdom, strengthening activity—notwithstanding stabilizing housing prices—and shrinking bank balance sheets are allowing a reduction in net government debt. Substantial slack, together with low oil prices, is expected to reduce inflation temporarily.



Sources: World Bank; Haver Analytics; Office for Budget Responsibility (2014); Bank for International Settlements.

B. Inflation is the annual average change in the consumption deflator.

C. The jump in net public debt at the end of 2008 (around £1.3 trillion) was caused by banking sector support, notably by the Royal Bank of Scotland and Lloyds Banking Group.

The recovery in the **Euro Area** has progressed more rapidly than expected since late 2014, supported by a weakening euro, declining oil prices, record-low interest rates, and an improvement in bank credit supply conditions. Euro Area growth is now projected to reach 1.5 percent this year, increasing to 1.7 percent in 2016-17 (Figure 1.5). The depreciation of the euro since June 2014 should contribute around ½ percentage point to growth in the Euro Area in 2015 (OECD 2015a, European Commission 2015), while lower oil prices should support consumer spending and corporate profits. Private investment should gradually pick up, but elevated corporate leverage, persistent financial fragmentation, significant slack in the labor markets of periphery countries, lingering supply-side impediments, and weak demand continue to weigh on prospects for a swift recovery (Barkbu et al. 2015). Fiscal policy will be broadly neutral this year and next, following several years of significant consolidation efforts. The turmoil in Greece is having wide-ranging repercussions for the Greek economy itself, but has had thus far limited knock-

on effects on the Euro Area as a whole. However, the risk remains that a further deterioration affects broader Euro Area confidence.

A mix of supply and demand shocks in the aftermath of the crisis left lasting damage to output and employment across the Euro Area. Additional easing by the ECB in 2014–15, including the launch in March 2015 of a quantitative easing program, brought long-term interest rates to record lows in both core and periphery countries (Box 1.1), even as concerns about Greece's financial strains intensified. It also contributed to a 10 percent depreciation of the euro in trade-weighted terms since mid-2014, which should support activity and gradually lift headline and core inflation from currently very low levels. Inflation was negative in the first quarter of 2015, but should rise gradually from mid-year onwards as the impact of declining oil prices wanes. The Euro Area current account surplus should reach a record 3.5 percent of GDP in 2015. It is driven by a depreciated exchange rate, lower oil prices, weak import demand and competitiveness improvements in the periphery, structurally high savings in Germany, and depressed investment rates.

Activity in **Japan** started picking up in late 2014 and was robust in the first quarter of 2015. Growth is predicted to average 1.1 percent this year, before accelerating to 1.7 percent in 2016, supported by expansionary policies (Figure 1.6). Potential growth in Japan may be as low as 1 percent, as the working-age population shrinks. Following persistent economic weakness during 2014 and bolstered by a victory in general elections in December 2014, the government implemented a series of fiscal stimulus measures, and postponed to April 2017 a second sales tax increase originally scheduled for October 2015. This stimulus, combined with policy accommodation by the Bank of Japan, cost savings for firms and households due to declining energy prices, announced product and labor market reforms, and the prospect of higher earnings following spring wage negotiations, should boost activity and confidence throughout 2015. Inflation is likely to remain below the target 2 percent through 2017.

As structural adjustments and policy efforts to address financial vulnerabilities continue, growth in **China** is expected to decelerate modestly to 7.1 percent in 2015 and 6.9 percent by 2017 (Figure 1.7). Fixed asset investment growth



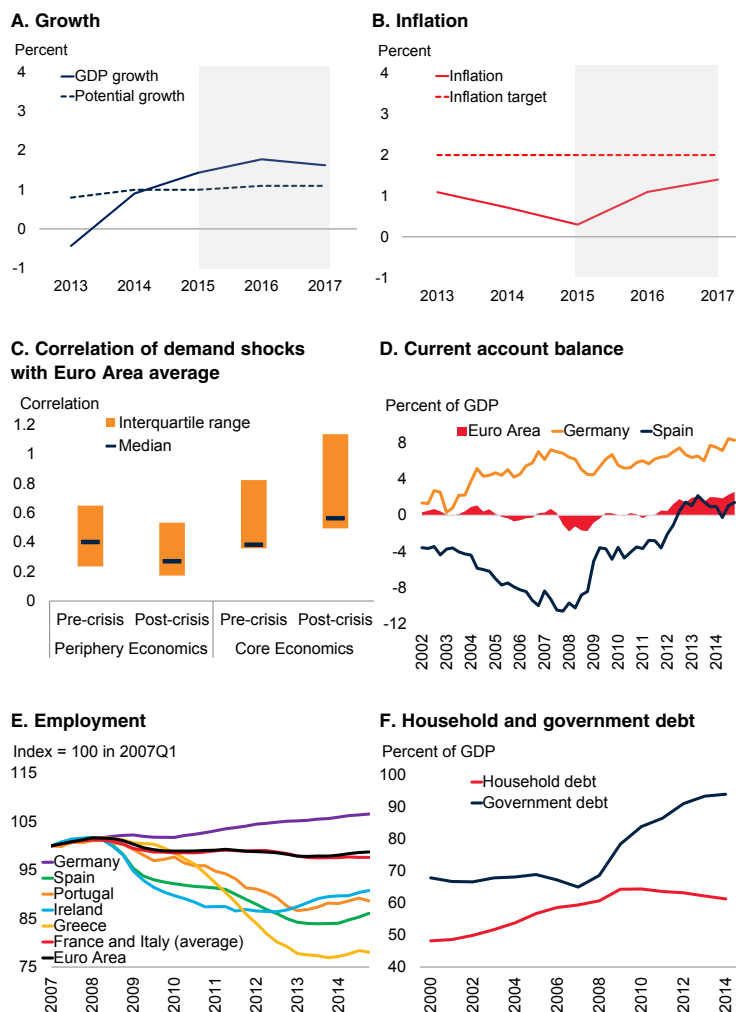
slowed to 15.2 percent in 2014, down from 19.4 percent in 2013, but is still the leading driver of aggregate demand. Despite reportedly stagnating employment in industries with overcapacity (e.g., various metals processing and mining industries and cement), the labor market appears to remain tight. The ratio of job openings to job seekers increased to multi-year highs, as a result of rapid services sector growth. Inflation, which has steadily declined since 2013, should stabilize at a low level after the effect of declining energy prices dissipates. However, producer prices are contracting significantly, particularly in industrial sectors affected by overcapacity.

To support activity amid tightening regulations on trust and interbank lending, the People's Bank of China continued to ease monetary policy in early 2015, lowering benchmark deposit and lending rates, making targeted cuts in the required reserve ratio, and announcing plans to accept municipal bonds as collateral for its refinancing and lending operations with commercial banks. As a result, there has been a shift towards greater bank lending. Tightening regulations on trust lending are being accompanied by efforts to limit local governments' off-balance sheet activities. In its 2015 budget, a RMB 1 trillion debt-for-bond swap was introduced to reduce local governments' interest burdens, and extend the maturity of existing debt. In tandem with the broad-based dollar appreciation, the renminbi has also appreciated in nominal effective terms by 1.7 percent since mid-2014. Despite the associated real appreciation, the current account surplus is expected to remain around 2 percent of GDP by 2017 as growth picks up in high-income countries. Narrowing interest rate differentials with the United States, fading expectations for further renminbi appreciation, and slowing domestic growth, have led to increased private capital outflows, and a slowing of official reserve accumulation.

Growth in **BRICS** (except China) is soft and has increasingly diverged. Falling oil prices and geopolitical sanctions have been accompanied by a steep slowdown in 2014 and are expected to result in a contraction in the Russian Federation in 2015. Fragile confidence, increases in administered prices, and low commodity prices are expected to contribute to a recession in Brazil in 2015 with a modest recovery in 2016–17. In

**FIGURE 1.5 Euro Area**

*A modest recovery is underway. Euro Area economies have diverged since the global financial crisis, with demand shocks in the core economies correlating more closely with each other, but not with those in the periphery. Import compression and improving competitiveness have turned current account deficits into surpluses; the aggregate Euro Area surplus is widening. Substantial slack, together with low oil prices, should keep inflation to near-zero in 2015. High government debt remains a burden.*



Source: World Bank; Bank for International Settlements; Dealogic; Organisation for Economic Co-Operation and Development; European Central Bank; Central Bank Rates.

B. Inflation is defined as the annual average change in consumption deflator.

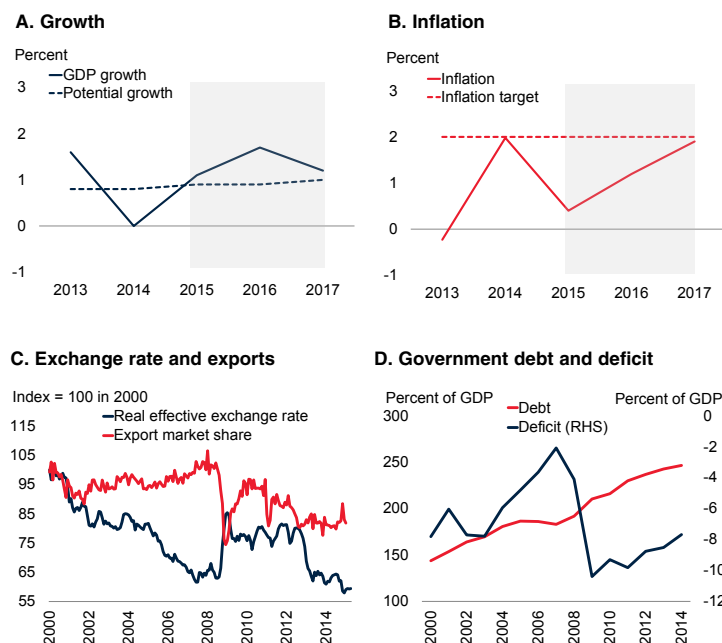
C. Values are the correlation of each country's demand shocks with the Euro Area average. Demand and supply shocks are identified as in Blanchard and Quah (1989) with country-specific vector autoregression models of unemployment rates and growth. Demand shocks are assumed to have short-term impacts, supply shocks long-term impacts.

D. The latest observation is 2014 Q4.

contrast, growth is gradually resuming in South Africa, but is held back by energy shortages, weak investor sentiment amid policy uncertainty, and by the anticipated tightening of monetary and fiscal policies. In India, activity is buoyed by stronger confidence as a reform-minded government implements its agenda and lower oil prices help contain vulnerabilities.

## FIGURE 1.6 Japan

A modest recovery in Japan is supported by rising consumer spending and exports, partly reflecting improved competitiveness from depreciation. Inflation is expected to pick up in 2016 as yen depreciation is passed through. Steadily rising government debt poses risks.



Sources: World Bank; CPB World Trade Monitor; Organisation for Economic Co-operation and Development; International Monetary Fund.

B. Inflation is defined as the annual change in the consumption deflator.

C. An increase in the real effective exchange rate denotes an appreciation. Export market share is defined as monthly real manufacturing exports divided by global real manufacturing imports

## Global Trends and Spillovers

As a result of developments in major economies, developing countries face two transitions: to tightening financial conditions which will be associated with moderating capital flows, gradually rising financing costs, and heightened risks of further currency depreciation and to persistently low oil prices over the long-term. Diverging monetary policy prospects in major economies have already caused significant depreciations and, looking ahead, are expected to contribute to moderating capital flows to developing countries and gradually tightening financial conditions. The surge in unconventional oil production in North America and Europe has altered oil markets and will keep oil prices low over the long-term. The interaction between these two forces has starkly different implications for commodity exporting and importing developing countries. It is set against the backdrop of a trend slowdown in developing country growth.

## Easy but Gradually Tightening Financial Conditions

Global borrowing costs remain low, partly as a result of monetary stimulus in the Euro Area. Quantitative easing by the ECB and the nearing prospect of U.S. Fed tightening have caused a broad-based appreciation of the U.S. dollar and have been followed by some volatility in global bond markets. On balance, global financial conditions are expected to tighten modestly, and tilt capital flows towards developing countries with sound prospects and low vulnerabilities.

The launch of the ECB's quantitative easing program has helped maintain low global financing costs. With the approaching prospect of the first post-crisis policy rate increase in the United States, the expected divergence in monetary policies has contributed to significant exchange rate movements, in particular a broad-based U.S. dollar appreciation, and some volatility in European and U.S. long-term interest rates. On balance, in light of the sizeable impact of U.S. monetary policy decisions on global financial markets, global borrowing costs are expected to rise with the launch of the tightening cycle. As world financing conditions tighten, investors are likely to increasingly discriminate based on country prospects and vulnerabilities. Many countries will also face an added debt service burden through the rise of the U.S. dollar and borrowing costs.

### Implications of the ECB's quantitative easing for developing countries

In March, the ECB launched a €1.1 trillion quantitative easing program, extending until at least September 2016. This has begun to feed into financial markets through multiple channels (Dahlhaus and Vasishta 2014; Sanchez 2013).

- *Portfolio balance channel* (a reduction in long-term sovereign bond yields, tilting investor incentives towards riskier assets). Sovereign bond yields in the Euro Area were at record-lows throughout 2014. They initially declined further after the announcement of quantitative easing in January, but increased in May during a bout of financial market volatility (Figure 1.8). In some Euro Area countries (Austria, Belgium, Finland, France, Germany, the Netherlands), yields on sovereign debt of short maturities remain negative, including as a result of increased scarcity

of highly-rated bonds eligible for the ECB's asset purchase program. Negative rates may help boost exports by leading to depreciation and lower borrowing cost but could have adverse consequences for financial stability (Box 1).

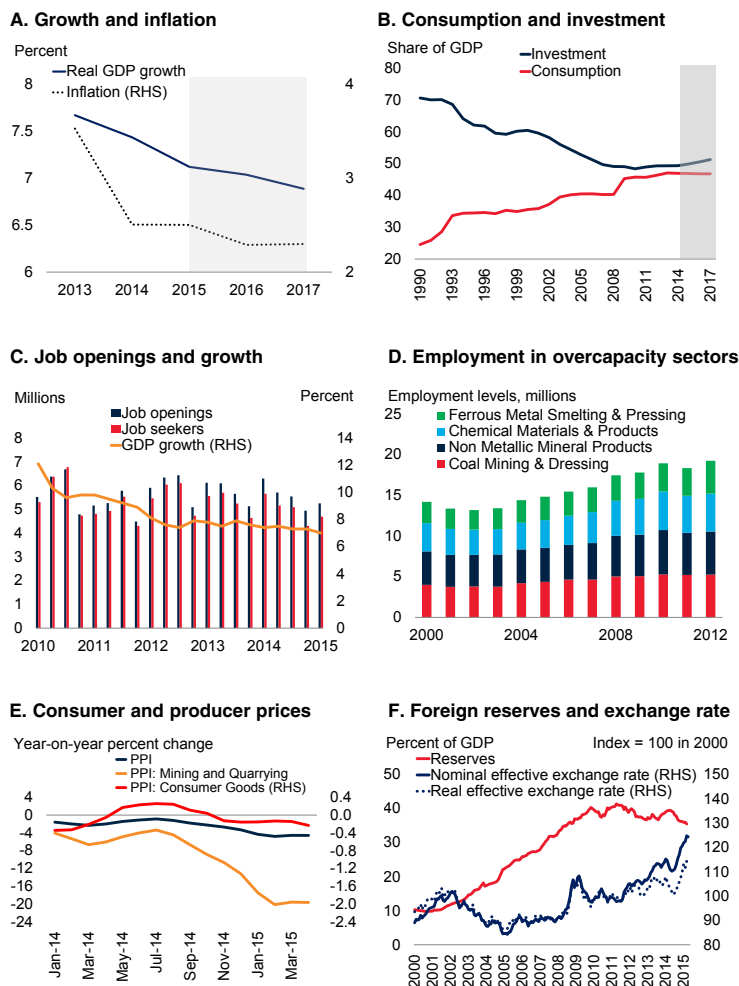
- *Signaling channel* (signaling persistently low interest rates in the Euro Area which encourages carry-trades and capital flows to non-Euro Area countries). So far, portfolio outflows from the Euro Area appear to have been disproportionately towards U.S. assets, particularly to long-term debt securities (Figure 1.9). This reallocation, besides supporting the U.S. dollar, has appeared to help keep U.S. Treasury bond yields low.<sup>1</sup>
- *Liquidity channel* (reducing liquidity premia and facilitating lending by liquidity-constrained banks). This channel has been particularly impaired in the Euro Area. Despite ample central bank liquidity since the crisis, bank credit has been held back by the need to rebuild balance sheets, uncertain growth prospects, and a gradual move to tighter regulatory requirements. Nevertheless, bank credit to the private sector, especially to non-financial corporates, has picked up (although the growth rate still remains negative in parts of the Euro Area periphery).
- *Asset price channel* (raising asset prices to lift consumer wealth). Immediately following the announcement of quantitative easing by the ECB, Euro Area equity markets gained 6 percent and continued to rise steadily to reach, by early May, 14 percent above end-2014 levels (Figure 1.9).
- *Exchange rate channel* (reducing the exchange value of the euro and improving the cost competitiveness of the Euro Area). Since ECB President Draghi's speech at Jackson Hole in August 2014 raised prospects for quantitative easing, the euro has depreciated by more than 16 percent against the U.S. dollar and 10 percent in nominal effective terms.<sup>2</sup>

<sup>1</sup>However, very low long-term interest rates in the United States still primarily reflect prospects for low inflation and real equilibrium interest rates in the United States (Hamilton et al. 2015).

<sup>2</sup>Pressures have also mounted on other high-income country currencies. To maintain its exchange rate peg against the euro, the Danish central bank accumulated reserves amounting to 15 percent of GDP in the first two months of 2015. Having already accumulated reserves of 10 percent of GDP during 2014, the Swiss central bank abandoned its currency floor against the euro in mid-January and the Swiss franc appreciated against the euro by 15 percent by end-March 2015 (Box 1).

**FIGURE 1.7 China**

The moderation in growth, especially of investment, continues as expected, buffered by fiscal and monetary policy support. Labor markets remain tight although employment in overcapacity industries has reportedly stagnated. International reserve accumulation has slowed, partly as a result of capital outflows.



Source: World Bank; Haver Analytics.  
 A. Annual averages.  
 C. The last observation is 2015 Q1.  
 F. The last observation is April 2015.

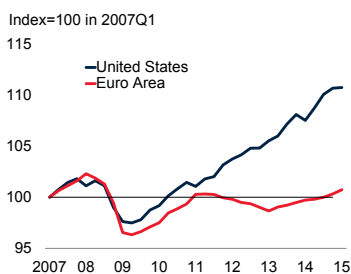
Although the ECB's decision to implement quantitative easing was anticipated, markets responded to the announcement in January and to the first bond purchases under the program in March with a sharp euro depreciation, which partially reversed later on. Taking into account developments during the run-up to the announcement of quantitative easing, the impact on bond yields appears broadly comparable to that observed previously in the United States and the United Kingdom (ECB 2015).

The ECB's quantitative easing program could have sizeable effects on capital flows to emerging mar-

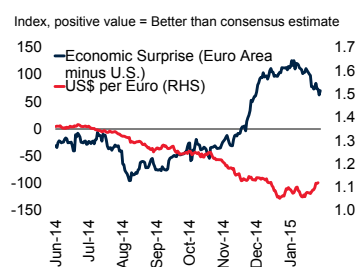
## FIGURE 1.8 Implications of the European Central Bank's quantitative easing for global financial conditions

Euro Area activity only returned to pre-crisis levels in 2014, but is expected to receive a boost from the European Central Bank's quantitative easing. This easing has helped reduce bond yields (although they spiked in May), contributed to euro depreciation and capital outflows, especially into U.S. assets. However, currency and bond market volatility has increased.

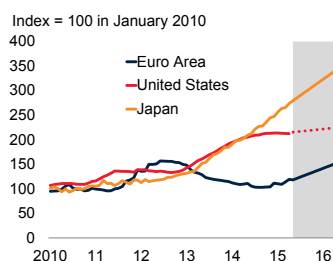
### A. Real GDP levels



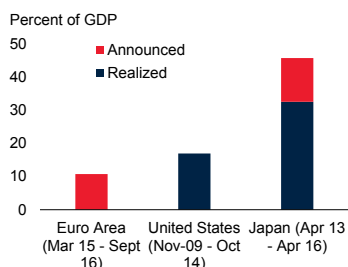
### B. Economic surprise indices for the United States and the Euro Area



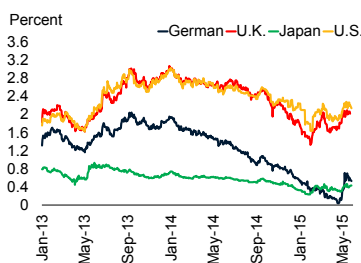
### C. Central bank balance sheets



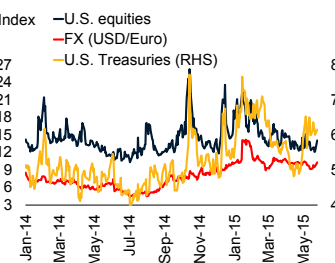
### D. Net asset purchases after the announcement of quantitative



### E. 10-year government bond yields



### F. Volatility



Source: World Bank; Bloomberg; Haver Analytics.

B. The Citigroup Economic Surprise Index is a weighted average of data surprises (actual releases versus the Bloomberg survey median). A positive reading suggests that economic releases have been better than expected. The indexes are calculated daily in a rolling three-month window.

kets. For example, quantitative easing programs in the United States in 2008-14 were associated with rising equity markets, a compression of bond yields, and considerable increases in demand for emerging market U.S. dollar-denominated bond issues (McCauley et al. 2015). U.S. dollar credit to bor-

rowers outside of the United States, comprising both bond and bank lending flows, grew at double digit rates, whereas credit to the U.S. private sector remained subdued. A similar effect is expected from the ECB's quantitative easing, although weakening fundamentals among emerging markets and greater competition from U.S. issuers could dampen positive spillovers.

The ECB's quantitative easing could shift the composition of capital flows to developing countries. A significant share of global portfolio flows to developing countries tends to originate in the United States, while European banks provide the bulk of cross-border bank lending flows. A policy rate increase by the U.S. Federal Reserve will further tilt capital flows to developing countries from bond and equity markets into bank lending. This tendency will be reinforced by the gradual healing of European banks' balance sheets, notwithstanding regulatory tightening since 2008. Regions that have been particularly reliant on bond and equity inflows (East Asia and Pacific, Latin America) could face a slowdown in capital inflows, while capital inflows may be more resilient to regions that receive predominantly bank lending-based inflows (Central Asia, Eastern Europe, Middle East and North Africa, see below).

### Implications of the launch of the U.S. monetary tightening cycle for developing countries

In the second half of 2015, the U.S. Federal Reserve is expected to raise interest rates for the first time since the 2008 financial crisis. This is likely to initiate a gradual tightening cycle from currently record-low interest rates. Rate increases will coincide with improved growth prospects for the United States, which would dampen the impact of rising financing costs on developing country trading partners (Special Feature 1).

Some previous U.S. tightening cycles (especially 1999 and 2004) were associated with a flattening of the yield curve (a narrowing of the spread between long and short-term interest rates). Some episodes (especially 1994 and 2004) were also followed by depreciating emerging market currencies and modestly declining capital flows to developing countries—if not on average across developing countries, at least for vulnerable economies (Figure 1.10). Many emerging market central banks responded with interest rate increases, especially during the 2004 tightening cycle.



### BOX 1.1 Negative Interest Rates in Europe: A Glance at Their Causes and Implications

*A number of major central banks in Europe have set key policy rates at negative levels in order to further encourage lending by making it costly for banks to hold excess reserves at their central banks. Amid negative policy rates, nominal yields on some bonds of highly-rated European governments have also dropped below zero. Explanations for the phenomenon of negative yields include very low inflation, further “flight to safety” toward fixed income assets in Europe’s core, and—perhaps the main proximate cause—the increased scarcity of highly-rated sovereign bonds eligible for the European Central Bank’s asset purchase program. Negative rates may help boost exports by encouraging currency depreciation and may support lending and domestic demand by further easing credit conditions. At the same time, they could also have some adverse consequences for financial stability through an erosion of bank profitability, through funding problems for some non-bank financial institutions, and through excessive risk-taking by investors seeking a higher rate of return. Potential implications for developing countries include a search for yield supporting capital inflows, which could help offset the impact of an approaching liftoff in U.S. policy interest rates.*

As an additional measure to stabilize inflation expectations and stave off the risk of deflation, a number of major central banks in Europe—including the European Central Bank (ECB), the Danish National Bank (DNB), the Swedish Riksbank, and the Swiss National Bank (SNB)—have pushed key short-term policy rates into negative territory.<sup>1</sup> Amid these movements, yields on some sovereign bonds at relatively short maturities in several European countries—including Austria, Denmark, Germany, the Netherlands, and Switzerland—have also fallen below zero. Negative interest rates have been an extremely rare phenomenon: even during the Great Depression, U.S. short-term rates were never negative, and during the height of the recent global financial crisis in 2008 some U.S. Treasury bill yields only very briefly fell below zero.<sup>2</sup> That they have simultaneously appeared in several European

countries at a time when global financial markets are not in crisis is unprecedented.

This box briefly explores the causes and implications of negative interest rates and yields in Europe. It aims to shed light on the following questions:

- Why are some European policy interest rates negative?
- What are the implications of negative policy rates for sovereign bond yields?
- What are the implications of negative rates and yields for activity and financial stability?
- What are the implications for developing countries?

#### Why are some European policy interest rates negative?

In June 2014, the ECB pushed the policy interest rate applied on its deposit facility below zero, with an additional cut in September 2014. (Figure B1.1.1). In February 2015, the Riksbank also cut its deposit rate below zero. The main motivation for these decisions was to further ease the already accommodative monetary policy stance to fight the growing threat of deflation amid downward pressures to inflation expectations in the second half of last year and into early 2015 (Figure B1.1.1).<sup>3</sup> The SNB and DNB have also taken similar actions at different points in the past, albeit for slightly different reasons. The DNB, which maintains its currency within a narrow fluctuation band around the euro, was actually the first central bank in Europe to set its deposit rate below zero—in July 2012, in response to rising capital inflows amid heightened financial stress in the Euro Area. It pushed the rate down again to negative territory in September 2014, following the ECB. The SNB set its deposit rate below zero in December 2014 amid currency appreciation pressures, and pushed it further down in January 2015 when it abandoned the Swiss franc’s cap against the euro.

The implementation of these negative policy interest rates have a common element. Commercial banks nor-

This box was prepared by Carlos Arteta and Marc Stocker, with contributions from Eung Ju Kim and Bryce Quillin.

<sup>1</sup>The discussion of setting policy rates below zero is not recent. For instance, Mankiw (2009) argued that the U.S. Federal Reserve should have considered this possibility during the Great Recession

<sup>2</sup>Based on closing levels, U.S. 1-month and 3-month T-bill rates fell below zero between early December and mid-December of 2008.

<sup>3</sup>In the ECB’s case, an ongoing contraction of its balance sheet in 2013 and 2014 had weakened the overall transmission of low policy rates to broader financing conditions. The ECB reacted with an extended program of asset purchases, as well as a negative deposit rate (ECB, 2015).

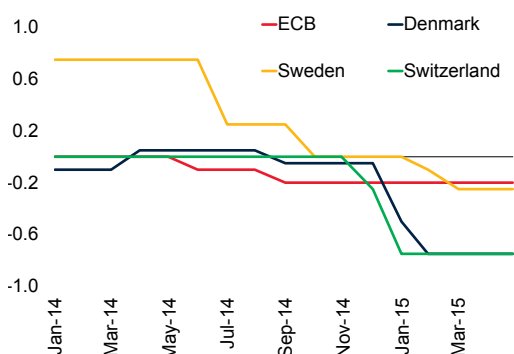
## BOX 1.1 (continued)

## Figure B1.1.1 Negative interest rates in Europe: Context

Some European central banks have pushed policy rates below zero, amid declining inflation expectations in the second half of 2014 and early 2015. Reflecting negative policy rates and increasing purchases of highly-rated sovereign bonds, some bonds now offer negative yields. Bank lending in the Euro Area is increasing, suggesting a supportive role of negative rates.

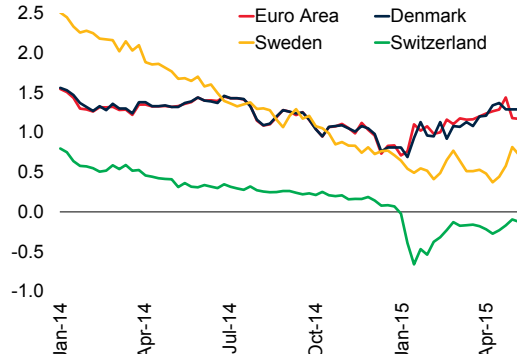
## A. Interest rates on excess reserves

Policy rate on excess reserves, percent



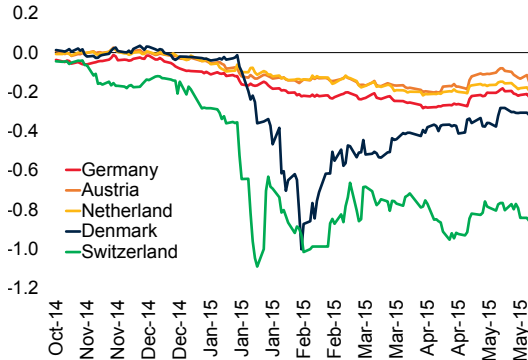
## B. Inflation expectations

4-year ahead inflation expectations, percent



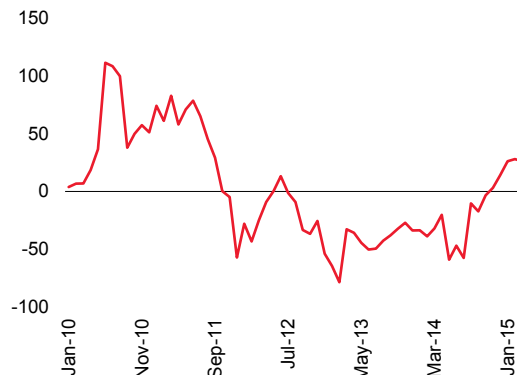
## C. Two year government bond yields

Percent



## D. Euro Area bank lending

Euro, billions, 3-month rolling sum



Source: Bloomberg, World Bank.

D. Euro Area bank loans to households and non-financial corporates. Last observation is for March 2015.

mally hold deposits at their central bank as settlement balances for clearing payments, or to meet legal minimum reserve requirements. Central banks normally pay interest—a “deposit rate”—on commercial banks’ excess reserves (i.e. reserves above the minimum level). During normal times, banks usually minimize holdings in such excess reserves, because central bank deposit rates are below typical money market rates. In the

<sup>4</sup>In addition, unconventional monetary policies and the expansion of central bank balance sheets have significantly increased the amount of banks’ excess reserves.

more uncertain environment since the global financial crisis, and with money market interest rates at very low levels, some banks have chosen to hold higher balances at central banks. That is, some of them have been holding excess reserves because of heightened risk aversion, and because the opportunity costs of hoarding reserves—in terms of profitable lending opportunities—have been quite low, given the low returns on assets and the sluggishness of economic activity.<sup>4</sup>

The four aforementioned central banks are now charging (instead of paying) commercial banks for their ex-

**BOX 1.1 (continued)**

cess reserves. Negative deposit rates should provide some encouragement to banks to buy alternative assets, and hence to put upward pressure on prices of such assets and further downward pressure on yields and borrowing costs. This would be transmitted through the economy by a general easing of credit conditions. However, as is discussed below, negative policy rates have distinct implications for sovereign bond yields and, crucially, for financial stability.

**What are the implications of negative policy rates for sovereign bond yields?**

Policy rates provide the benchmark for short-term borrowing costs throughout the economy. This includes shorter-dated bonds. Thus, negative policy rates in the Euro Area, Denmark, and Switzerland have been accompanied by negative market rates on government bonds, particularly at the shorter end of the yield curve. For example, the 2-year bond yields on highly-rated European countries such as Austria, Denmark, Germany, the Netherlands, and Switzerland have been negative during the first half of 2015, though they have generally ticked up amid recent bond market volatility (Figure B1.1.1.C). Besides the role of negative policy rates, there are several potential explanations for the emergence of negative yields, particularly those beyond the short-end of the yield curve. These include very low inflation, the persistence of the international “savings glut,” and further “flight to safety” toward low-risk fixed income assets. In consequence, sovereign bonds of certain countries in Europe that are deemed risk-free have been in heavy demand.

That said, a key reason for negative sovereign yields in core European countries appears to be technical—a result of demand pressures stemming from the ECB’s Extended Asset Purchase Program, which is in turn a consequence of the design of the program. Purchases announced by the ECB, which will amount to €60 billion per month until at least September 2016 (for a total of €1.1 trillion), will mainly be of sovereign bonds, following a defined allocation, and strict eligibility criteria. These criteria prohibit purchases beyond 25 percent of the outstanding amount of individual securities, 33 percent of any given issuer’s debt, and of bonds with yields below the ECB’s deposit rate, cur-

rently set at –20 basis points. This lower yield limit is to ensure that purchases are implemented broadly across eligible bonds, and to curb speculation on future declines in bond yields. Such speculation would encourage holders, including banks, to hoard bonds. While the ECB deposit rate might establish a lower bound for bond yields, rising demand and limited supply of highly-rated sovereign bonds could bring their yields well below that rate. In addition, since bonds can be used as collateral in repurchase agreements, they have additional value which could keep them attractive with materially negative yields.

The prospects of growing imbalances between the limited supply of eligible bonds and rising demand under the ECB quantitative easing program have pushed down yields in core Euro Area countries and, indirectly, in other European countries. Overall, the net issuance of medium- and long-term securities by all Euro Area debt management offices in 2015 is expected to be around €200 billion, against total asset purchases of €600 billion by the ECB (Cœuré 2015). In some countries, including Germany, net issuance is expected to be marginal or even negative, creating a mismatch between effective supply and the intended scale of ECB’s purchases.

Investors initially held on to core-European bonds on expectation of further capital gains, which in itself helped push yields to record low levels in April. A reversal in market sentiment in May led to an upward adjustment in yields. However, scarcity considerations will likely continue to drive core-European bond markets, potentially intensifying if the share of eligible sovereign bonds trading with negative yields approach the lower limit for eligibility. This should keep yields at exceptionally low levels, and perhaps below zero for a while longer.

Investors may hold instruments with negative returns for various reasons, such as for speculative and arbitrage reasons, institutional and regulatory requirements, or simply for lack of alternative assets.

- **Speculative and arbitrage reasons.** Investors may be expecting increased demand for bonds—for example, due to the announcement by the ECB of

**BOX 1.1 (continued)**

bond purchases discussed earlier—and rising bond valuations. Alternatively, they may be expecting currency appreciation and rising returns when bond portfolios are converted into other currencies. This might be a particularly important channel of transmission of negative yields from the Euro Area to other European bond markets facing upward currency pressures as a result of ECB actions, such as Switzerland, Denmark or Sweden. In either case, total bond returns, adjusted for expected capital gains or currency movements, could compensate investors for negative home-currency yields.

- **Institutional and regulatory requirements.** Institutional investors often maintain portfolios with large government bond holdings in pursuit of stable, risk-adjusted returns to meet long-term obligations. Regulatory requirements on the level of risk that some institutional investors can take or agreements with stakeholders may drive these portfolio decisions.
- **Lack of alternative assets.** For non-bank investors, holdings of cash at zero return may appear to be more remunerative than a negative-yield bond. However, the security, transactions, and storage costs would be prohibitive for large holdings, which would result in a potentially substantially negative rate of return of cash.

### What are the implications of negative rates and yields for activity and financial stability?

Broadly speaking, central banks use policy interest rates to achieve, over the medium term, a level of real interest rates that is consistent with a rate of inflation in line with policy objectives and a level of economic activity close to its full potential. Such levels of real inter-

est rates might be negative in an environment of weak domestic demand.<sup>5</sup> With inflation remaining below target, they could require maintaining nominal policy rates at or below zero, along with the implementation of unconventional measures to bring longer-term rates further down, including asset purchase programs.

Thus, some of the effects of negative rates are qualitatively analogous to those of very low but non-negative rates. First, insofar as negative nominal rates help keep real interest rates below the neutral level, they can boost consumption and investment. Second, the positive cash flow effects of low or negative nominal rates permits increases in spending by liquidity-constrained firms and households. Third, low or negative policy rates may help stimulate lending, as evidenced by the recent pickup in credit in the Euro Area (Figure B1.1.1.D). Fourth, declines in domestic interest rates from any level can trigger a depreciation of the currency, as suggested by the fall of the euro vis-à-vis the dollar amid negative German yields (B1.1.2.A), which boosts exports. Fifth, in countries concerned about capital flow-driven appreciation pressures (e.g. Switzerland and Denmark), they discourage capital inflows.

In addition to these effects that are largely intended by policy makers, negative nominal interest rates may have undesirable side effects on financial stability and capital market functioning.<sup>6</sup>

- **Erosion of bank profitability.** Negative rates may erode bank profitability by narrowing banks' net interest margins (the gap between commercial banks' lending and deposit rates), since banks may be unwilling to pass through negative deposit rates to their customers to avoid the erosion of their customer base (Genay and Podjasek 2014, Hannon 2015). This unwillingness is due to the fact that, for retail depositors, the costs of avoiding negative rates by substituting currency for deposits is probably lower than for larger, business, and institutional investors (McAndrews 2015). As a consequence, interest margins have recently narrowed substantially (Figure B1.1.2.B). Compressed long term interest rates also reduce profit margins on the standard banking maturity transformation of funding short-term and lending at a somewhat longer term. However, banks can realize capital

<sup>5</sup>The chronically low levels of real interest rates has led some observers to argue that advanced economies may be facing a period of “secular stagnation,” where the level of spending at any given level of interest rates is likely to have declined and may remain depressed (Summers 2014).

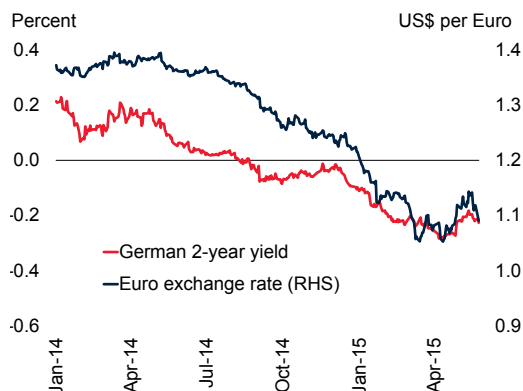
<sup>6</sup>In the United States, potential disruptions to financial market functioning are likely a key reason why negative policy rates have never been used as a policy option. First, money market funds operate under rules that make it difficult for them to pay negative interest rates. Second, the auction process for new U.S. Treasury securities does not currently permit participants to submit bids with negative rates. Third, a decrease in the interest on reserves (IOR) rate would affect the federal funds market, reducing the incentives for banks to borrow in this market (Keister 2011).

**BOX 1.1 (continued)**

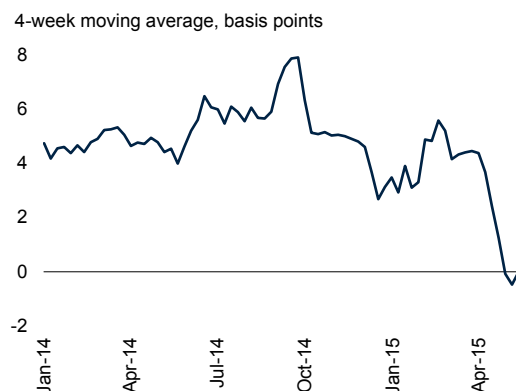
**Figure B1.1.2 Negative interest rates in Europe: Some consequences**

Negative European interest rates and yields have been accompanied by euro depreciation, despite a recent retracement. But negative rates have also been associated with a significant narrowing of spreads between bank lending and deposit rates, which may erode bank profitability. Regarding implications for developing countries, the difference between benchmark German and developing-country bond yields has widened, which has been accompanied by an acceleration in foreign inflows to developing-country bond funds.

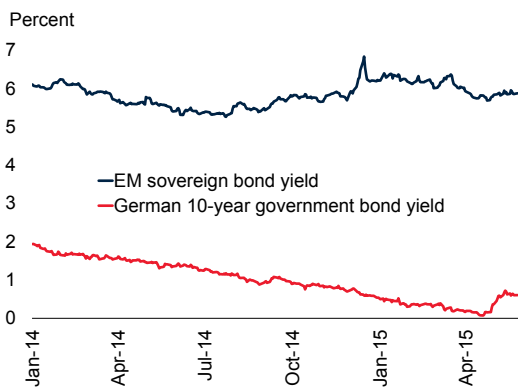
**A. Euro-dollar exchange rate and government bond yields**



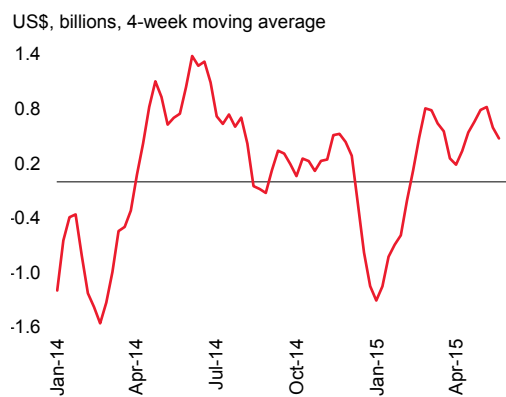
**B. Net interest margin for Euro Area banks**



**C. Benchmark government bond yields for Germany and emerging markets**



**D. Foreign portfolio flows into emerging-market bond funds**



Source: Bloomberg, Emerging Portfolio Fund Research, JPMorgan Chase, and World Bank.  
 B. Net interest margin is proxied by the difference in borrowing and lending rate of banks without compensating for the fact that the amount of earning assets and borrowed funds may be different.

gains on the sale of their government bonds to central banks and, in doing so, bolster their capital position and, therefore, their capacity to extend loans (Cœuré 2015).

- **Pressures on non-bank financial institutions.** Under negative interest rates, some non-bank financial institutions—especially pension and life insurance companies—may struggle to meet their

long-term liabilities, such as pensions or life insurance policies, offered at fixed nominal rates (Hannoun 2015). In particular, various European life insurance companies that have guaranteed payouts exceeding the yields on local 10-year government bonds are likely to face significant pressures (IMF 2015a). Insurance companies or pension funds might be constrained to hold government bonds by



**BOX 1.1 (continued)**

prudential requirements, hence contributing to the demand glut and downward pressure on yields.

- **Anomalies in the valuation of returns and payments streams.** As interest rates approach zero, the calculation of present values of streams of cash flows becomes increasingly sensitive to the discount rate.<sup>7</sup> Indeed, the present value of any stream can be made arbitrarily large by choosing a low enough discount rate. This becomes a contentious issue in the negotiation of fair value in legal settlements. As discount rates of zero or less have no economic meaning, a prolonged period of negative interest rates would create large ambiguities for the valuation of assets and liabilities.
- **Effects on money market funds.** Money market funds make conservative investments in cash-equivalent assets, such as highly-rated short-term corporate or government debt, to provide investors liquidity and capital preservation by paying a modest return. While these funds aim to avoid reductions in net asset values, this objective would not be attainable if rates in the market were negative for a substantial period.<sup>8</sup> Disruptive reactions by disappointed investors would best be avoided by clear understanding of the nature of these funds. That said, the Danish experience suggests that money market funds can pass through the negative rates without massive disruptions in the market (Huttl 2014).
- **Excessive risk-taking.** Bank and non-bank investors may be encouraged by negative rates to take excessive risk in their search for positive yield (Hannoun 2015). This is consistent with various studies that find a negative relation between short-term interest rates and bank risk-taking (e.g. Altunbas, Gambacorta, and Marqués-Ibáñez 2010; De Nicolò, Dell’Ariccia, Laeven, and Valen-

cia 2010; Dell’Ariccia, Laeven, and Suarez 2013). Greater risk-taking could contribute to the formation of asset bubbles, particularly in higher-dividend paying stocks which may already have excessive valuations.

- **Potential need to redesign the functioning of financial transactions.** The issuance of interest bearing securities at negative yields may face design problems (Garbade and McAndrews 2015). Contractual language surrounding the operation of money and capital markets may not envision the possibility of negative rates; thus, the latter may create both legal and operational challenges. More generally, if negative rates were to prevail for long, they may entail the need to redesign debt securities, certain operations of financial institutions, the recalculation of payment of interest among financial agents, and other operational innovations, whose costs may offset the benefits of negative rates (McAndrews 2015).

One key question is how deep negative rates must be for these kinds of distortions to become quantitatively important. According to some observers, in an economy like the United States, market rates (not to be confused with deposit rates on excess reserves) staying below  $-50$  basis points on a sustained basis might spawn various financial innovations to circumvent negative rates (Garbade and McAndrews 2012). Such adaptations would, in themselves impose an eventual floor, albeit somewhere below zero, on the extent to which rates could fall (Svensson 2015). However, these kinds of innovations, which uses valuable scarce resources, may impose a net loss in terms of economy-wide social value.

If they were to emerge, such financial innovations could include new services, such as the creation of new institutions to handle and store cash on behalf of others. It could also include new behavioral responses, such as making excessive tax payments to the government and earn a zero return until a refund is received from the government, thus avoiding negative rates (McAndrews 2015). At the extreme, if central banks pushed rates too far into negative territory, there is a risk that large sectors of the economy could become

<sup>7</sup>One way to describe the problem for pension and life insurance plans is to say that the steep drop in discount rates implies a steep rise in the present value of their liabilities.

<sup>8</sup>Money market funds may face adverse consequences even at zero, non-negative rates (Di Maggio and Kacperczyk. 2015).

**BOX 1.1 (continued)**

cash-based. Under these circumstances, there could even be discussions about the feasibility of a tax on money, a topic that has long been subject to debate in academic circles as a way to overcome the zero bound on interest rates (Buiter and Panigirtzoglou 2003, Ilgmann and Menner, 2011).<sup>9</sup>

The bottom line of all these factors is that, while the benefits of negative rates are broadly similar to those of very low but positive rates, they posit unique risks for financial stability.

**What are the implications of negative rates for developing countries?**

Current negative European policy rates highlight the asynchronous monetary policy stances in Europe and the United States. This could have implications for real activity and the financial sector in developing countries.

**Real effects.** The overall effect on developing-country exports via exchange rate movements is likely to be modest. The reduction in European rates has contributed to euro depreciation against the dollar. However, since developing-country currencies have also been declining against the dollar, the impact of negative rates on nominal and real effective exchange rates across developing countries may be contained.<sup>10</sup> As a result, the direct impact of negative rates on developing countries' exports may be limited as a whole, albeit with large country variations depending on specific trade exposures and currency developments.

**Financial effects.** Negative interest rates in Europe may accelerate portfolio outflows from Europe, and support continued favorable financing conditions for developing countries.

- *Widened interest rate differentials.* The interest rate differential between developing-country and European bond yields widened since the second half of 2014, as suggested by the gap between the JP Morgan EMBIG Index and the German 10-year

bond yield (Figure B1.1.2.C). Despite recent volatility, which has slightly narrowed this differential, German 10-year yields are generally following the same contour as (currently negative) short-term yields. Amid interest rate differentials, foreign inflows into emerging market bond funds have remained steady since the beginning of the year (Figure B1.1.2.D)

- *Increased search for yield and carry trade.* Negative European rates and yields could shift investor demand to higher-yielding emerging market debt and provide additional funding opportunities for developing countries in European markets. With negative nominal interest rates in Europe, there will also be incentives for increased carry trade, particularly to some higher-yielding developing-country currencies.
- *Moderated effect of eventual U.S. liftoff on developing-country capital flows.* Outflows from European sovereign to U.S. Treasury markets would have likely helped contain long-term yields in the United States, in the face of the approaching liftoff in U.S. policy rates, thus providing support to continued capital flows to developing countries.
- *Shifts in developing-country sources of funding.* Negative rates may be contributing to a gradual shift in the source of funding for some developing countries, from U.S. dollar- to euro-denominated debt instruments, and from bond to cross-border bank lending flows, which mainly originate from European lenders.

In sum, negative European interest rates may provide ongoing support to capital flows to developing countries and help reduce pressures from a gradual normalization of U.S. monetary policy (Special Feature 1). However, over the medium term, unsustainably low interest rates may render some countries more vulnerable to the eventual unwinding of exceptional stimulus measures in Europe and to a reversal of capital flows.

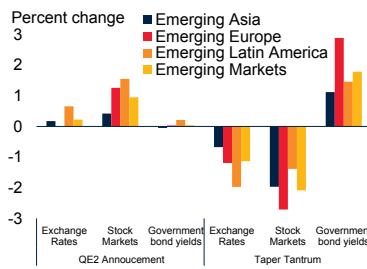
<sup>9</sup>There have even been discussions about the costs and benefits of phasing out paper currency as one way to eliminate the zero bound in interest rates (Rogoff 2014).

<sup>10</sup>Chapter 1 discusses this issue at greater length.

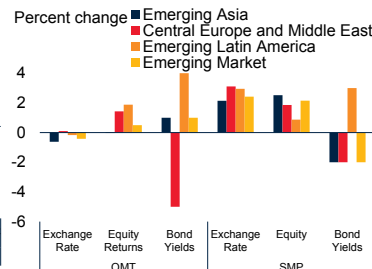
## FIGURE 1.9 Implications of the European Central Bank's quantitative easing for developing countries

The ECB's announcement of quantitative easing (QE) was followed by falling sovereign bond yields, rising equity markets, and appreciation against the euro in emerging markets. Similar to the cross-border credit expansion triggered by QE in the United States, ECB QE is expected to increase portfolio flows and, especially, bank lending to developing countries.

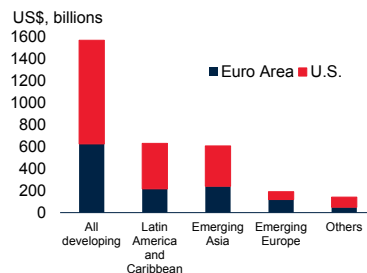
### A. Impact of the U.S. announcement of quantitative easing on emerging-market assets



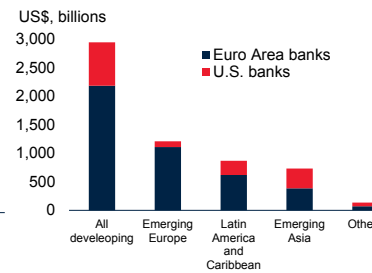
### B. Impact of the European Central Bank's announcement on developing country financial markets



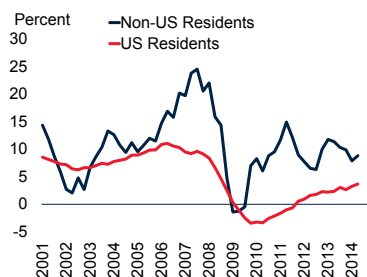
### C. Portfolio investment from the Euro Area and the United States, 2013



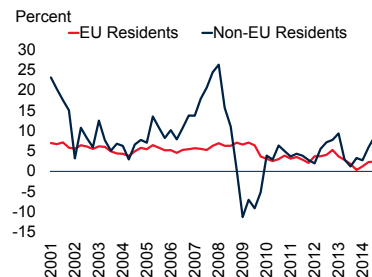
### D. BIS-reporting banks' cross-border claims, Q3 2014



### E. U.S. dollar credit growth to non-U.S. residents and U.S. residents



### F. Euro credit growth to non-E.U. residents and E.U. residents



Sources: Bank for International Settlements; McCauley, McGuire, and Sushko (2015); World Bank; International Monetary Fund; Georgiadis and Gräß (2015); Rai and Suchanek (2014); Fratzscher, Duca, and Straub (2014).

A. QE2 refers to quantitative easing announcement by the U.S. Federal Reserve in November 2010. Taper tantrum refers to the volatility following U.S. Federal Reserve remarks on May 22, 2013. "Emerging Asia" contains China; India; Indonesia; Malaysia; Philippines; Republic of Korea; Taiwan, China; and Thailand. "Emerging Europe" includes Czech Republic, Hungary, Poland, Russian Federation, South Africa, and Turkey. "Emerging Latin America" refers to Brazil, Chile, Colombia, and Mexico.

B. SMP and OMT stand for "Securities Markets Programme" and "Outright Monetary Transactions," two anti-crisis measures implemented by the ECB respectively in 2010 and 2012. "Emerging Asia" countries are China; Hong Kong SAR, China; India; Indonesia; Malaysia; Philippines; Republic of Korea; Singapore; Thailand; and Taiwan, China. "Central Europe and Middle East" includes Algeria, Israel, Morocco, Russian Federation, Turkey, and South Africa. "Emerging Latin America" countries are Argentina, Brazil, and Mexico. An increase in exchange rates denotes an appreciation against the euro.

C. Emerging Asia includes countries in East and South Asia.

D. Emerging Asia includes countries in East and South Asia. BIS = Bank for International Settlements; Q3 = third quarter.

While there is a risk that a lift-off in U.S. policy rates could lead to a sudden steepening of the U.S. yield curve with disruptive consequences for developing countries (reminiscent of the "Taper Tantrum" in May/June 2013, Special Feature 1), the baseline assumption remains that of a very gradual increase in U.S. long-term rates and a flatter yield curve, as observed during some previous tightening cycles and as expected by financial markets now. This should result in only modestly tighter global financial conditions for developing countries later in 2015 and in 2016.

As financing costs gradually rise, investors are likely to increasingly differentiate among country prospects and vulnerabilities. Both during the financial market turmoil of May/June 2013 (the "taper tantrum" following the U.S. Fed's announcement of tapering large-scale asset purchases), and during the broad-based U.S. dollar appreciation since mid-2014, exchange rates depreciated sharply against the U.S. dollar in the more vulnerable developing economies and in those with deteriorating growth prospects, in particular commodity exporters. Risks would be particularly sizable in developing countries with high external and government debt; large current account and fiscal deficits; heavy foreign currency borrowing and high debt service payments; elevated inflation; low reserve coverage; and poor growth prospects.

### Capital flows to developing countries

Portfolio flows to developing countries remained subdued in 2015, but low bond yields, and ample liquidity continued to encourage investor interest in bond issuance, particularly in China and other East Asian countries. On the whole, sovereign bond yields in emerging markets remained low despite headwinds from expectations of U.S. policy tightening, currency depreciations and increased volatility in global bond markets.

However, issuer activity has softened in Latin America (especially Brazil) and Eastern Europe, on limited funding needs, a shift to local debt markets, weakening prospects (especially in Latin America) and rising borrowing costs as market sentiment deteriorated. Corporate bond spreads for emerging market oil companies also rose sharply (Figure 1.11).

Record-low global interest rates over the past half-decade have encouraged external borrowing. As a



result, private external debt has risen since 2011, whereas sovereign external debt has generally remained moderate as sovereigns shifted towards domestic borrowing. However, several developing country sovereigns have issued heavily in international bond markets. In some countries, this has helped reduce their debt service payments. Other countries, however, may experience record-high spikes in payments over the next decade (Ghana, Jordan, Kenya, Nigeria, Zambia).

In addition, currency risk may be rising for some countries, as prospects of increasingly divergent monetary policies between the United States and other major central banks increase the potential for further appreciation of the U.S. dollar. This has encouraged a shift towards euro-denominated corporate bond issuance (to around 13 percent of the total in the first quarter of 2015).

Net capital inflows to developing countries are projected to moderate marginally, to 5.1 percent of GDP in 2015 from 5.4 percent in 2014 (Table 1.1). At the same time, a gradual shift is expected from bond financing to bank lending, and from U.S. dollar to euro-denominated funding (although the majority of emerging market debt will remain U.S. dollar-denominated). Net capital flows are expected to recover in 2016 (in absolute value terms, though not relative to GDP), as the global economy continues to improve and country-specific challenges diminish among developing countries, but are not expected to return to pre-crisis levels. Capital flows will continue to be constrained by concerns about private-sector debt sustainability, tighter regulation, and increased competition for funding as high-income country issuance rises. Furthermore, natural resource-based foreign direct investment is expected to decline as a result of weak commodity prices and declining growth prospects among commodity-exporting countries.

### Low and volatile commodity prices

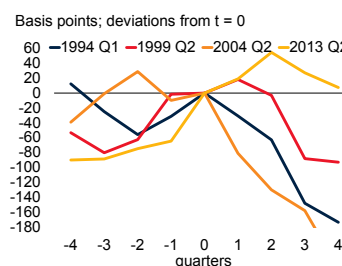
*Oil prices have begun to find some support after the sharp decline in the second half of 2014, but are expected to remain well below their 2013 levels during the next decade. Second-round effects of low oil prices on other commodities, together with robust supplies and soft demand, are expected to keep prices low for most other commodities in the medium-term.*

Oil prices have stabilized following the steep drop—more than 50 percent—to a six-year low in January

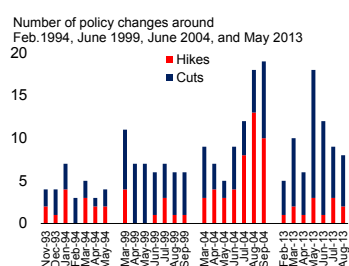
## FIGURE 1.10 Implications of launch of monetary tightening in the United States

Past episodes of first rate increases in a U.S. monetary policy tightening cycle were often accompanied by a flattening U.S. yield curve, and currency depreciations and/or monetary policy rate increases in emerging markets. The close correlation with emerging market borrowing costs suggests that lift-off in 2015 may increase global financing costs, especially for vulnerable countries.

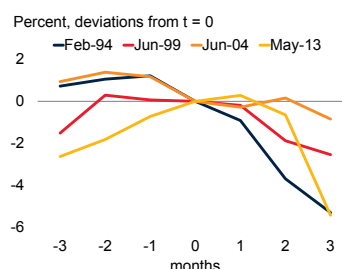
**A. U.S. term spreads around previous U.S. tightening cycles**



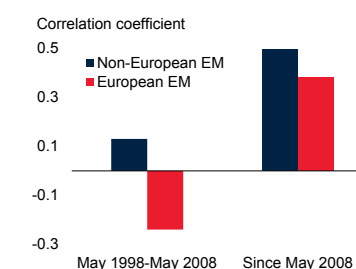
**B. Number of policy changes around past episodes of U.S. rate hikes**



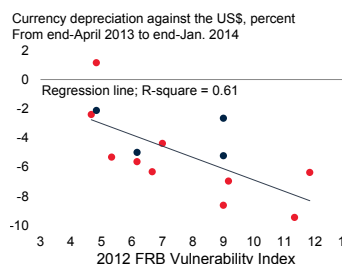
**C. Emerging markets: Nominal effective appreciation around previous U.S. tightening cycles**



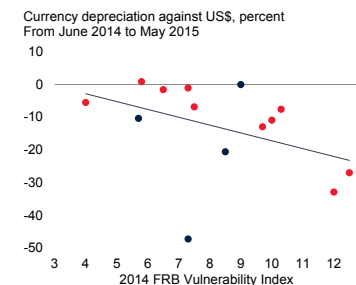
**D. Correlation between U.S. term spread and emerging market bond spreads**



**E. "Taper Tantrum": Emerging-market vulnerabilities and depreciation**



**F. Oil price plunge: Emerging-market vulnerabilities and depreciation**



Sources: Bloomberg; U.S. Federal Reserve Board; Haver Analytics; World Bank.

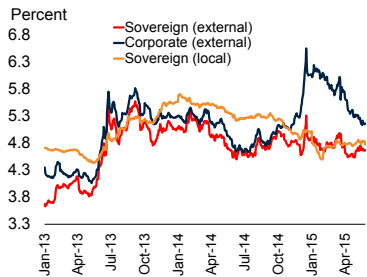
- A. Term spread denotes the difference between 10-year U.S. Treasury and 6-month T-bill yields, shown four quarters before until four quarters after the launch of each U.S. tightening cycle (t=0).
- B. Values are for emerging and frontier markets as defined in World Bank (2015a).
- C. Median of nominal effective exchange rate of BRICS and MINT countries, three months before until three months after the beginning (t=0) of U.S. monetary policy hikes. The Russian Federation is excluded from the sample of the 1994 episode.
- D. U.S. term spread is defined by the difference between the 10-year Treasury rate and the 3-month T-bill rate. Emerging market bond spread is JP Morgan's EMBIG yield spread.
- E. F. For the FRB vulnerability index, higher numbers = more vulnerable. Blue dots indicate net oil exporters.

2015. A substantial capacity adjustment in the U.S. shale oil industry (Figure 1.12) has raised prices somewhat from the January lows. The rig count—

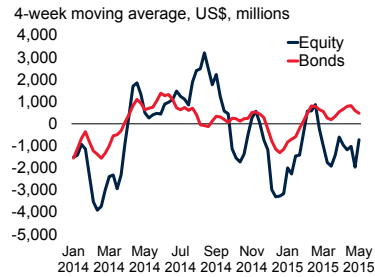
## FIGURE 1.11 Developing countries' capital flows and borrowing costs

Sovereign bond yields have mostly remained low, but corporate bond yields have risen sharply and portfolio flows have remained subdued. Post-crisis bond inflows have raised corporate foreign currency debt, which is predominantly denominated in U.S. dollar. Some sovereigns that have recently accessed international capital markets are likely to see sharp debt payment spikes. Euro-denominated bond issuances have picked-up since the start of quantitative easing in the Euro Area. As bank balance sheets heal, regions that are more dependent on bank flows than bond flows may benefit.

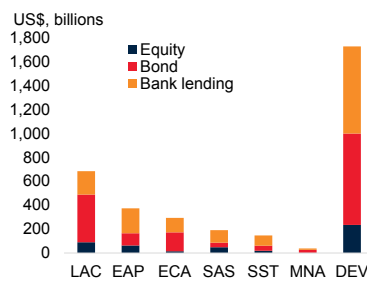
### A. Emerging-market bond yields



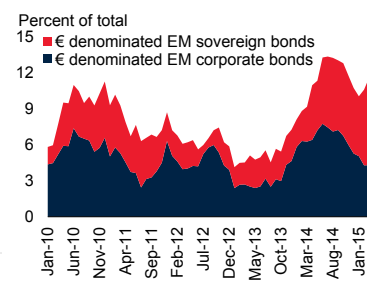
### B. Foreign portfolio inflows to EM assets



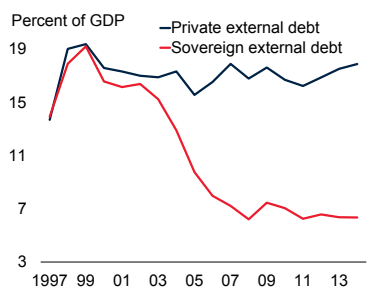
### C. Gross capital flows to developing countries since 2011



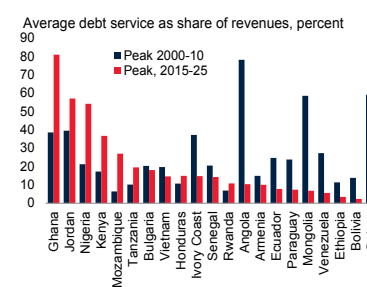
### D. Share of euro-denominated emerging market international bond issuance



### E. Emerging-market private and sovereign external debt



### F. Emerging and frontier market peak annual debt service payments



a measure of future U.S. crude oil supplies—more than halved between October 2014 and April 2015, and major oil companies have announced sharp cut-backs in investment plans. Thus far, however, U.S. shale oil production has remained robust, albeit growing more slowly. It is expected to peak in later 2015. In the short-run, continued weak demand, U.S. dollar appreciation, ample and rising global inventories, and unexpectedly solid production in conflict-torn Republic of Yemen, Iraq, and Libya, keep oil prices below their elevated 2013 levels (IEA 2015). A recently negotiated international agreement with the Islamic Republic of Iran could raise supply further.<sup>3</sup> Oil prices are expected to average about \$58 per barrel in 2015 and remain below \$70 per barrel until 2018.

The decline in oil prices since mid-2014 partly reflects a secular increase in supply as new sources of oil have been accessed. Similar to the expansion of North Sea and Mexican oil production in the mid-1980s, oil production from shale extraction, and, less so, from biofuels and Canadian oil sands expanded rapidly in the mid-2000s (Box 1.2). For now, these sources supply about 7 percent of the global market and shale oil, the most sizeable of these sources, has marginal cost in the range of \$50-70 per barrel. However, the production of shale oil is highly flexible with a relatively modest fixed cost of investment and a short lifespan of 2.5–3 years (World Bank 2015b). Absent significant demand pressures, this flexibility may limit room for oil price increases above \$80 per barrel in the medium- to long-term. As a result, oil prices are expected to return to their 2013 levels only in the next decade (by 2025).

As oil prices have found some support and begun to recover, their volatility has risen (Figure 1.13). Both the realized and implied volatilities of oil prices have increased more than three-fold since the thirty days prior to OPEC's November 27 decision to abandon the earlier price target. The level of oil price volatil-

<sup>3</sup>Iran and the five permanent United Nations Security Council member countries plus Germany have agreed on a framework that could lead to the removal of sanctions imposed on Iran by the United States and the European Union. Until then, the easing of sanctions under a deal made in November 2013 remains in place. Under that agreement, Iran's crude exports are capped at 1 million barrels per day. In the short-run, Iran's capacity to ramp up production is limited. However, over the long-term, it could add significantly to global oil supply. Before the current sanctions were imposed in 2013, Iran produced about 3.5 million barrels per day and it currently has about 20 million barrels of crude oil in storage.

Sources: World Bank; JP Morgan; Bloomberg; International Monetary Fund World Economic Outlook; Bloomberg Emerging Market Bond Index; EFPP; Dealogic.

A. The last observation is May 5, 2015.

C. China is excluded from East Asia and Pacific. DEV = total capital flows to developing countries, excluding China.

D. The last observation is April 2015.

E. Emerging countries are: Argentina, Brazil, Bulgaria, Chile, China, Colombia, Czech Republic, Dominican Republic, Ecuador, Hungary, India, Indonesia, Malaysia, Mexico, Pakistan, Panama, Peru, Philippines, Poland, Republic of Korea, República Bolivariana de Venezuela, Russian Federation, South Africa, Thailand, Turkey, Ukraine, and Uruguay.

ity remains well below spikes in 1985/86, 1990/91, and 2008/09. However, if sustained or amplified, it could induce uncertainty that deters investment and reduces employment growth, by generating costly resource reallocations to and from energy-intensive activities (Guo and Kliesen 2005; Federer 1997).

Weak global demand (including from China), U.S. dollar appreciation, and low oil prices have put pressure on non-oil commodity prices, in particular those for natural gas, fertilizers, and food.

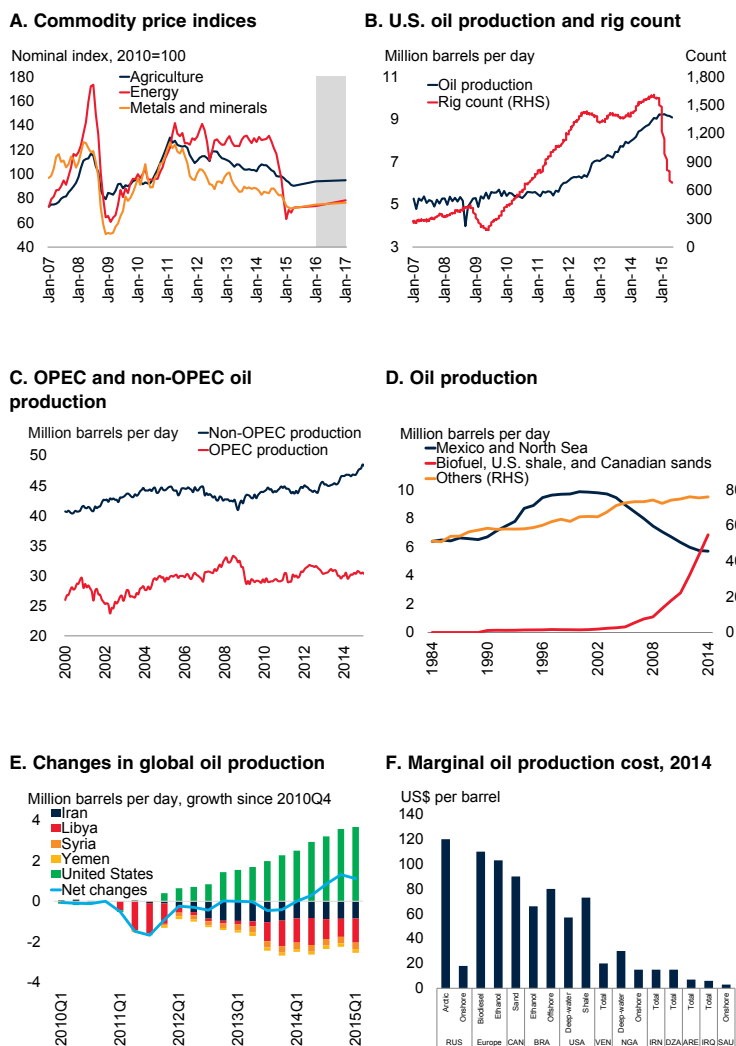
- **Natural gas.** The prices in most contracts for liquefied natural gas deliveries to Asia are linked to oil prices, though with a considerable lag. As a result, liquefied natural gas prices have already declined substantially (in Japan, by more than 15 percent since June 2014) and are expected drop further. In Europe, a natural gas market is slowly emerging such that a smaller share of gas contracts is directly linked to oil prices. This share, however, is sufficient to put downward pressure on European natural gas prices.<sup>4</sup>
- **Fertilizer.** Natural gas is a key input into fertilizer production. Already, fertilizer prices have fallen more than 40 percent below their mid-2011 peak. Following the post-2005 drop in natural gas prices in the United States (due to the shale gas boom), many fertilizer companies began moving their production plants to the United States.
- **Food commodities.** Food production is 4–5 times more energy-intensive than manufacturing. Energy, and oil in particular, is used to fuel farm machinery, for transport of farm produce to markets, and in the highly energy-intensive production of agricultural chemicals including fertilizers. Oil thus constitutes a significant proportion of the cost of food production. As a result, a 45 percent decline in oil prices could generate a 10 percent drop in food prices (Baffes et al. 2015). In addition, recent harvests have been good, contributing an additional 10 percent decline in food commodity prices since end-2014.<sup>5</sup>

<sup>4</sup>Since a fully-functioning gas market has been developed in the United States, U.S. natural gas prices have largely de-linked from oil prices and are determined by domestic gas supply and demand conditions.

<sup>5</sup>The weak El Niño event currently underway is expected to last through the summer (NOAA 2015). Its effect on global prices is likely to be limited, as most agricultural markets are well supplied.

**FIGURE 1.12 Oil markets**

Unconventional oil supplies (Mexican and North Sea Oil in the 1990s, and shale oil, biofuels and Canadian sands in the 2000s) have increased global supplies. On signs of sharp investment cuts in the shale industry in 2015, oil prices appear to have found a floor. Longer-term prospects of ample supply from unconventional, non-OPEC oil production suggest that prices will likely remain low, constrained by the marginal cost of unconventional sources.



Sources: World Bank; International Energy Agency; Bloomberg; International Monetary Fund; Deutsche Bank; Citi Research; Reuters; BP Statistical Review; U.S. Energy Information Administration; Baker Hughes.

A. The last observation is April 2015. Grey area indicates forecasts.  
 B. Oil production includes only crude oil production.  
 C. OPEC = Organization of the Petroleum Exporting Countries.  
 E. Crude oil supply for OPEC and non-OPEC producers. OPEC = Organization of the Petroleum Exporting Countries.

Falling gas, fertilizer, and agricultural commodity prices may dampen or amplify some of the benefits of lower oil prices. For oil-importing countries that depend heavily on exports of gas (Indonesia) or agricultural goods (e.g., cotton in Benin, Burkina Faso, Mali, Tajikistan, and Uzbekistan; grains in

Argentina and Brazil), lower oil prices may support energy-intensive production and consumption but export revenues will fall. Oil-importing countries that are also important food importers (Arab Republic of Egypt, Morocco) may benefit from both lower oil prices and food prices to the extent that they are passed through into local prices. The combination of lower oil and food prices will further weaken prospects in oil-exporting countries that also export foods (e.g., grain in Kazakhstan and the Russian Federation).

Metals and agricultural raw materials prices—among the most business cycle-sensitive commodity prices—fell 15 percent between mid-2014 and April 2015. Since the factors that have driven all commodity prices down since 2011 remain in place, non-oil commodity prices are expected to remain well below their 2011 peaks throughout the forecast horizon.

### Subdued and shifting global trade

*Global trade remains subdued, with a gradual shift of import demand from emerging markets towards the United States. However, global trade may receive a small boost from the decline in oil prices as a result of reduced freight costs.*

At 3.6 percent in 2014, global trade growth continued to be substantially weaker than its pre-crisis average of about 7 percent. Some recovery in global trade is projected over the next two years, but at a pace still significantly below pre-crisis averages, both in absolute terms and in relation to global GDP growth. This reflects weak import global growth as well as a maturing of supply chains and a shift in the sources of global growth from trade-intensive investment towards government and private consumption (World Bank 2015a).

Since 2014, rising demand from the United States has expanded the share of trading partner exports to the United States. Trade-intensive investment goods account for a larger share of U.S. imports compared with other high-income country imports (Figure 1.14), and this share has been increasing. Imported machinery, electrical and transportation goods, predominantly from China and Mexico, are notable examples. As a result, growing U.S. imports may provide a boost to global manufacturing trade and activity, even if fuel imports continue to decline in the face of competition from domestic oil and gas.

While the Euro Area continues to account for by far the largest share of global imports, its contribution has declined steadily as an export market destination, including in the second half of 2014. In 2015, however, Euro Area import demand is expected to expand and support key trading partners in Eastern Europe, North Africa, and Asia. Imports by emerging markets, despite decelerating since 2011, remain the most dynamic contributor to global export growth at present.

The recent oil price plunge reduces the cost of transport, and hence should encourage global trade flows. Global trade has been estimated to rise by up to two percent for every one percent decrease in the freight cost relative to the value of the shipment (Behar and Venables 2010). Since fuel accounts for 40-63 percent of operating cost for a typical shipment (UNCTAD 2010), falling oil prices could significantly bolster trade.

## Recent Developments and Outlook in Developing Countries

*The income shifts caused by falling commodity prices are having increasingly pronounced effects. Many commodity-importing countries have benefited from shrinking vulnerabilities: lower inflation and narrowing fiscal and external deficits. This has created room for central banks to support activity. In most oil-exporting countries, however, activity has slowed. Currencies have depreciated, compelling some central banks to tighten monetary policy. Governments have cut spending to offset falling resource revenues.*

### Recent growth disappointments and outlook

Growth in developing countries has again fallen short of expectations in 2014. In particular, growth was revised downward in many oil exporting countries and in Brazil, where supply-side bottlenecks, a drought, and setbacks to investment and consumer confidence from ongoing investigations appears to have a stronger impact on growth than expected. Recent softness in activity has been wide-spread, with an ongoing slowdown in China, a deepening recession in Russia, and contraction in Brazil and Venezuela dampening activity in their respective regions. In several large developing countries, manufactur-



## BOX 1.2 Low Oil Prices in Perspective

*The price of oil is expected to remain low for a considerable period of time and could become increasingly volatile. Past episodes of sustained oil price declines were often followed by relatively weak global economic recoveries, with multiple factors affecting final outcomes. The current episode has been predominantly driven by supply factors, and could lead to changes in the structure and functioning of global oil markets.*

The oil price plunge since mid-2014 was caused by changes in underlying supply and demand conditions, amplified in the short term by a sharp appreciation of the U.S. dollar, a shift in Organization of the Petroleum Exporting Countries (OPEC) policy, and abating geopolitical risks. Although the supply capacity of relatively high-cost and flexible producers, such as the shale oil industry in the United States, is already adjusting to this low-price environment, most of the underlying factors point to persisting weakness in oil prices over the medium term.

The negative impact of sharply lower prices on exporters has been immediate, and in some cases accentuated by financial market pressures, while the positive impact for importers appears more diffuse and has not yet fully materialized. Evidence from past episodes shows that sharply declining oil prices were generally followed by quite diverse global growth outcomes, pointing to other important forces either mitigating or reinforcing the impact of declining oil prices on activity. As the current decline in oil prices has been largely driven by supply factors and is expected to be persistent, the net effect for the global economy should be positive over the medium term. The distinction between supply and demand factors is of key importance, as the former has much more positive and lasting effects on activity. As a benchmark, a purely supply-driven and permanent 45 percent drop in oil prices could be associated with a 0.7–0.8 percent increase in global gross domestic product (GDP) over the medium term, with the effect peaking after two years.

The growing importance of unconventional oil production and technological innovations has forced OPEC to rethink its policy and role as a swing producer to stabilize prices. This changing landscape could have implica-

tions for the future structure and functioning of oil markets. This box addresses three questions:

- What happened during past episodes of rapid oil price declines?
- How is the current episode different?
- What does the current episode mean for the future structure of oil markets?

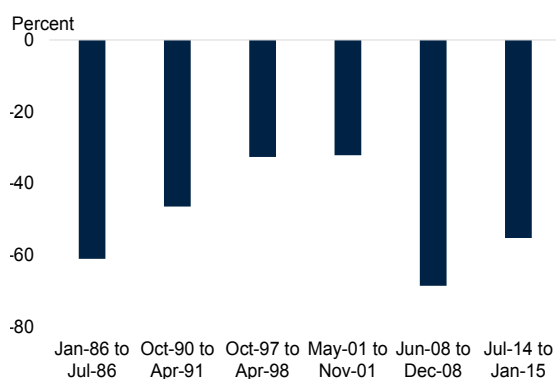
### What happened during past episodes of rapid oil price declines?

The drop in oil prices since June 2014 is the third largest among six episodes of significant declines over the past three decades (Figure B1.2.1). Previous episodes were preceded by a period of weakening global growth, which contributed to the observed decline in price

**FIGURE B1.2.1 Major oil price declines since 1984**

*The drop in oil prices in the second half of 2014 is one of six episodes of significant oil price declines over the past three decades.*

Magnitude of significant oil price drops



Sources: World Bank.

Note: Nonconsecutive episodes in which the un-weighted average of West Texas Intermediate, Dubai, and Brent oil prices dropped by more than 30 percent over a six-month period.

(Figure B1.2.2). Those episodes were followed by relatively slow recoveries, as benefits for oil importers took time to materialize and were in some cases offset by prevailing headwinds. Although virtually all episodes of significant oil price drops since 1984 were accompanied by monetary policy loosening in the United States and some other major advanced economies, several were accompanied or followed by financial market strains.

The main authors of this box are John Baffes and Marc Stocker.

**BOX 1.2 (continued)**

**1985–86.** The 1985–86 oil price slump was the episode most closely associated with changing supply conditions, as OPEC reverted to its production target of 30 million barrels per day despite rising unconventional oil supply from the North Sea and Mexico. Prices dropped 60 percent from January to July 1986, leading to a prolonged period of low real oil prices during the following two decades. Around that period, the U.S. Federal Reserve embarked on a series of interest rate cuts to fend off slowing activity and declining inflation. The lack of improvement in global activity, despite these supportive conditions, was tightly connected to a period of weak growth and significant debt problems in some large developing countries, slow growth in Japan and many European countries, and, at the end of 1987, the impact of a significant downward correction in U.S. and global stock markets.

**1990–91.** The oil price decline of 1990–91 reversed an earlier spike triggered by the first Gulf War, leaving a limited trace on the global economy. Despite being accompanied by monetary policy loosening, global growth failed to strengthen significantly. Instead, it slowed in 1992 before recovering modestly in 1993, as a recession in Europe ran its course, the recovery in the United States remained hesitant, and Japan entered a period of prolonged stagnation. In advanced countries, a process of debt reduction and balance sheet restructuring; elevated long-term real interest rates; financial and exchange rate stress, especially in Europe; and weak confidence hampered the global upturn. In contrast, growth in many developing countries was resilient, with significant capital inflows helping commodity exporters offset negative terms-of-trade effects from weakening prices.

**1998.** A sharp decline in oil prices was associated mostly with weakening demand as a result of the 1997 Asian crisis. The continued expansion of OPEC production until mid-1998 might have played a role as well (Fattouh 2007). The global recovery remained tepid for most of 1998, partly as a result of financial market stress in the United States and major emerging markets. The recovery gathered momentum only in 1999–2000 when oil prices started recovering as well, as growth in the United States, the Euro Area, and several large developing economies rebounded.

**2001.** The disruptions and uncertainty caused by the September 11 terrorist attacks in the United States intensified a growth slowdown already underway as the “dotcom” bubble deflated. Softening global activity and rising uncertainty were the main triggers behind a sharp decline in oil prices around that period. However, aggressive easing in monetary policy by the Federal Reserve and other major central banks propelled a rapid rebound in activity and lower oil prices might have provided some further support.

**2008–09.** A severe contraction in global demand sent all commodity prices tumbling during the Great Recession of 2008–09. Wide-ranging central bank and government interventions, together with resilient growth in major developing countries, gradually stabilized global activity. However, the recovery remained sluggish, constrained by financial sector restructuring, large asset price losses, and widespread deleveraging pressures in high-income countries. The combined impact of a rapid rebound in commodity prices and declining interest rates supporting capital flows to developing countries created particularly favorable conditions for commodity-exporting developing countries in 2010–12.

**How is the current episode different?**

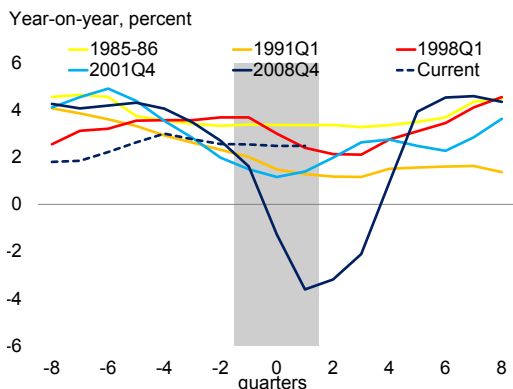
The footprint of sharply lower oil prices since mid-2014 has become increasingly visible, but has not yet translated into stronger global growth. Oil exporters have faced increasing headwinds, diverging monetary policy across major reserve currencies has led to rising exchange rate volatility, and China has continued to slow down. Global growth was subdued at the start of 2015, but is predicted to gain momentum, as the United States emerges from a soft growth patch at the start of 2015, the Euro Area continues to recover, and oil-importing emerging economies gather strength. Unlike during previous episodes of significant oil price declines, the U.S. Federal Reserve is widely expected to start hiking policy rates before the end of the year, while unconventional easing measures in the Euro Area and Japan maintain highly accommodative conditions in other parts of the world.

**BOX 1.2 (continued)**

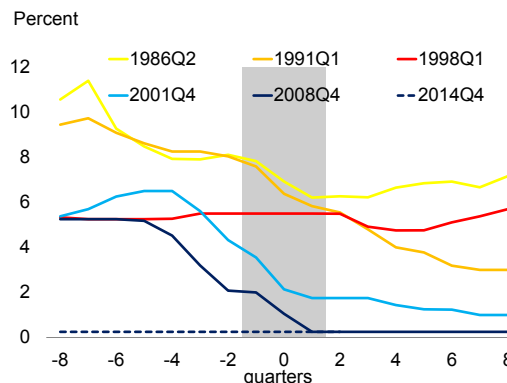
**Figure B1.2.2 Global growth and inflation around oil price declines**

Past episodes of significant oil price declines were often preceded by global growth slowdowns and followed by relatively weak recoveries in high-income and developing countries, mostly as a result of financial market stress. U.S. monetary policy eased around most of the past episodes.

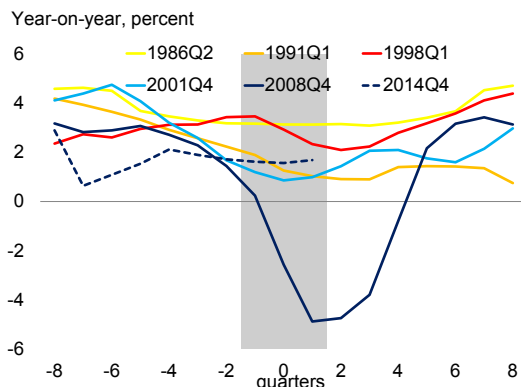
**A. Global growth**



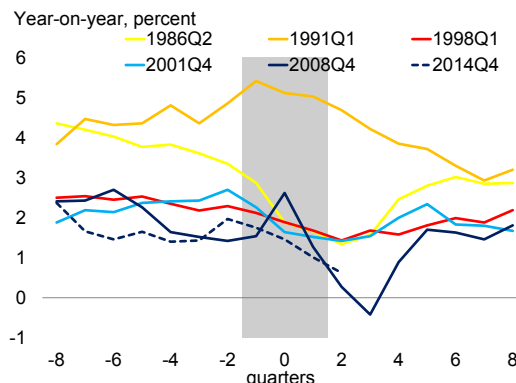
**B. U.S. monetary policy interest rates**



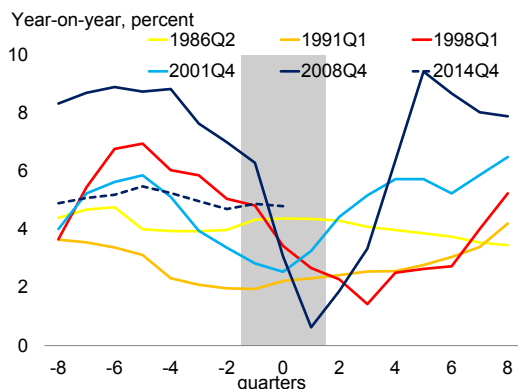
**C. High-income countries' growth**



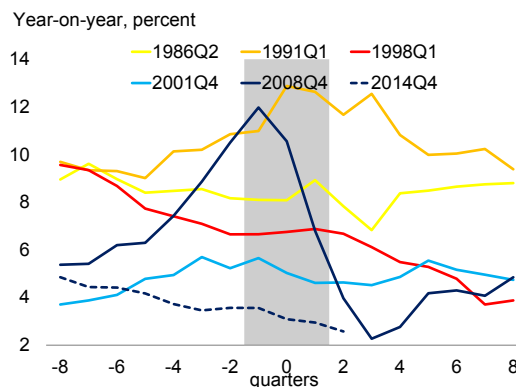
**D. High-income countries' inflation**



**E. Developing countries' growth**



**F. Developing countries' inflation**



Sources: World Bank and Federal Reserve Bank of St. Louis.

Note: Shaded areas indicate the period of the sharp oil price drop.

A. Global growth computed on the basis of a weighted average (using 2010 US\$ GDP weights) of countries for which quarterly national accounts data are available. Time "0" is the quarter of the trough of a significant oil price decline episode (30 percent drop over a seven-month period, which is the shaded region); -8 corresponds to 8 quarters before the trough and 8 corresponds to 8 quarters after the trough.

B. Effective U.S. nominal federal funds rate.

D. Consumer price index (CPI) inflation aggregated across countries using consumption weights.

F. Median CPI inflation across developing countries.

**BOX 1.2 (continued)**

Regarding the drivers of the recent crash in oil prices, a comparison with previous episodes points to a predominant role of supply factors, with important similarities to the 1985–86 episode. Both episodes followed periods of high oil prices and a rapid expansion of non-OPEC oil supplies—Alaska, North Sea, and Mexico in the former, and U.S. shale oil, Canadian oil sands, and biofuels in the latter. And in both crashes OPEC changed its policy objective, from price targeting to market share.

In contrast, other sharp declines were largely precipitated by slowing global demand or, in the case of the 1990–91 crash, associated with the first Gulf War. The 2008–09 collapse exhibited some unique characteristics. Prices during that period were highly correlated with equity and exchange rates, while co-movements across most commodity prices were twice as high compared with the historical average (and other crashes), highlighting the predominant role of deteriorating demand conditions.

The dominant role of supply factors behind the 2014–15 drop bodes well for its eventual impact on global activity. Estimates suggest that a purely supply-driven decline of 45 percent in oil prices could be associated with a 0.7–0.8 percent increase in global GDP over the medium term (Baffes et al. 2015).

However, the ultimate impact on global activity remains uncertain. First, with a confluence of cyclical and structural forces at work in the global economy, the expected gains for growth from the drop in oil prices could be lower than suggested by the standard model simulations. These mitigating factors include current financial vulnerabilities, high indebtedness, limited room for monetary policy in major economies to be loosened further, elevated unemployment, and slowing long-term growth prospects in major oil-importing economies. These factors may encourage precautionary savings by households and corporations, particularly in countries still facing important crisis legacies and weak balance sheets.

Second, the precise contributions of the supply and demand factors behind the recent oil price crash remain uncertain and subject to debate. According to Baffes et al. (2015), supply shocks have accounted for roughly twice as much as demand shocks since mid-2014, particularly after OPEC's decision to forgo price targeting

in November.<sup>1</sup> Analysis by the International Monetary Fund (IMF 2015b) points to weak demand playing a more significant role in the initial phase of the decline (July to mid-October 2014), while supply factors dominated in the subsequent period. Other studies, such as Hamilton (2014), Baumeister and Kilian (2015), and Badel and McGillicuddy (2015), point to varying effects of weakening global growth on oil prices in 2014–15.<sup>2</sup>

Some of these empirical investigations focus on the co-movement of oil prices with equity and other financial and commodity prices. The current episode has been associated with relatively strong performance of U.S. and global equity markets, which has been interpreted as evidence of a positive supply shock, reflecting expectations of more supportive conditions for activity ahead (Figure B1.2.3). Another important feature of the recent period of sharply declining oil prices has been the significant and broad-based appreciation of the U.S. dollar, in contrast with the 1985–86 episode. A strong dollar might have accentuated the decline in oil prices, contributing to lower demand in importing countries with depreciating currencies while encouraging supply from producers.

**What does the current episode mean for the future structure of oil markets?**

Over the medium term, oil prices are projected to recover gradually from their current lows, but will remain below recent peaks and could witness more volatility. The pace of the recovery in prices will largely depend on the speed at which supply will adjust to current market conditions. Given that OPEC, for now, appears to have relinquished its role as swing producer, U.S. shale oil producers, with their relatively short production cycles and low sunk costs, may see the greatest

<sup>1</sup>Looking at high-frequency co-movements between oil and global equity markets since mid-2014, Baffes et al. (2015) find that supply factors were the dominant factor. Adverse demand shocks (that reduce oil and equity prices) peaked around end-2014, whereas favorable supply shocks kept mounting until February 2015.

<sup>2</sup>Hamilton (2014) finds that two-fifths of the oil price decline in the second half of 2014 reflected new indications of weakness in the global economy, while Baumeister and Kilian (2015) report that shocks to the demand for oil inventories contributed to the recent oil price drop as well. Badel and McGillicuddy (2015) argue that the decline in oil prices during the second half of 2014 was largely driven by negative oil-specific demand shocks—in anticipation of expected abundant oil supply.

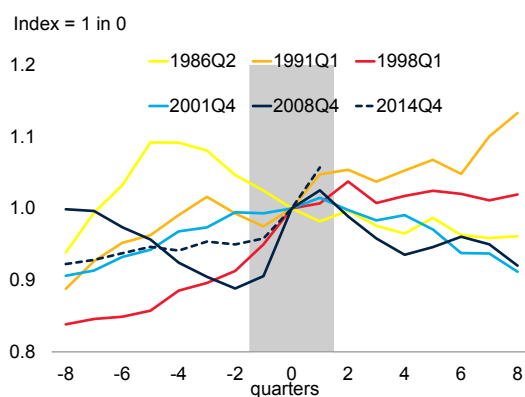


## BOX 1.2 (continued)

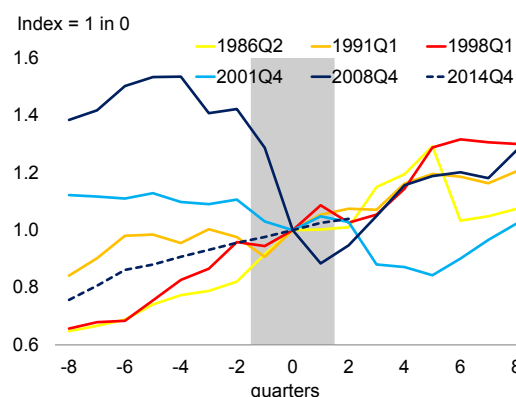
Figure B1.2.3 Financial market developments around oil price declines

The current episode has been associated with a significant appreciation of the U.S. dollar and relatively strong performance of U.S. and global equity markets.

## A. U.S. dollar



## B. U.S. stock prices



Sources: World Bank and Federal Reserve Bank of St. Louis.

A. Nominal effective exchange rate of the U.S. dollar against a trade-weighted basket of major currencies. An increase denotes a nominal effective appreciation. Time "0" is the quarter of the trough of a significant oil price decline episode (30 percent drop over a seven-month period, which is the shaded region); -8 corresponds to 8 quarters before the trough and 8 corresponds to 8 quarters after the trough.

B. U.S. equity market index in U.S. dollars.

adjustments in the short term, but could rapidly restore capacity as prices increase. This response could contribute to more volatility in prices, around a lower equilibrium level.

The increasing importance of unconventional oil production as an existing and prospective source of additional oil (Figure B1.2.4) has led to intensive debates about the long-term role of OPEC as a cartel.

Looking back, efforts to manage world commodity markets to achieve price objectives are not unique to the oil market. Several commodity agreements, often negotiated among producing and consuming nations to stabilize prices, were put in place after World War II, including wheat, sugar, tin, coffee, and olive oil (Swirling 1968). A renewed effort took place after the price boom in the 1970s, with the agreements typically backed by the United Nations and extended to other commodities, including cocoa and natural rubber (Gilbert 1996). These agreements had legal clauses regarding the tools to manage the corresponding markets, which were export restrictions and inventory management. But over the long term, the price and

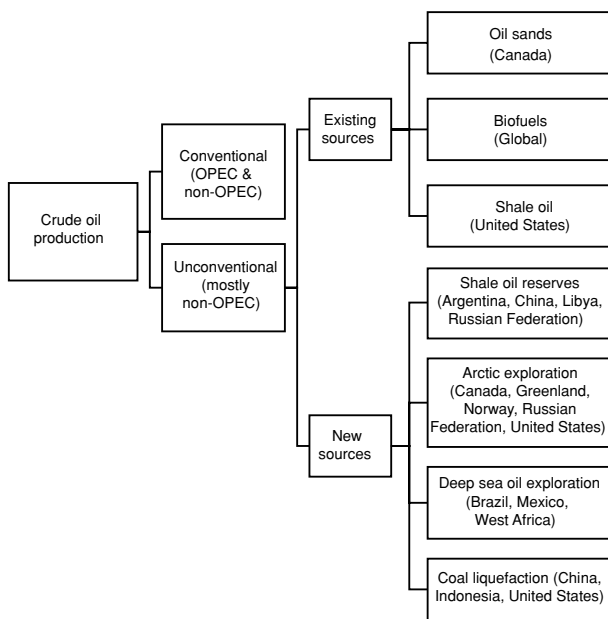
trade restrictions imposed by some of the agreements on global market conditions either encouraged the emergence of competitor products (e.g., for tin) or the entry of new producers (e.g., for coffee).<sup>3</sup> As a result, all the agreements (except crude oil) eventually collapsed.

A key difference between OPEC, the only surviving commodity organization seeking to actively manage markets, and the earlier commodity agreements is that OPEC does not have a legal clause on how to intervene when market conditions warrant. Therefore, OPEC can respond flexibly to changing circumstances.

<sup>3</sup>First negotiated in 1954, the International Tin Agreement (ITA) collapsed in 1985. Higher tin prices under the ITA encouraged new tin producers to enter the market and the development of a substitute product, aluminum, which gained market share by capturing the growing demand from the beverage can producers. In 1962, coffee-producing countries accounting for 90 percent of global coffee output and almost all developed coffee-consuming countries signed the International Coffee Agreement (ICA) with the objective of stabilizing world coffee prices through mandatory export quotas. Elevated coffee prices encouraged the emergence of new producers outside ICA, such as Vietnam, which by the early 2000s had overtaken Colombia as the world's second largest coffee producer after Brazil. The cartel was dismantled in 1989 (Baffes, Lewin, and Varangis 2005).

**BOX 1.2 (continued)****Figure B1.2.4 The new oil map**

OPEC's share of global oil supply has fallen, partly as a result of rising oil production from unconventional sources in the United States and Canada, as well as biofuel production. These developments have redefined the global oil map with important medium-term implications.



Source: World Bank.

OPEC began playing an important role following its decision to impose an embargo on oil exports in 1973, and was also instrumental in tripling oil prices in 1978–79

(OPEC 2015). Efficiency gains and new oil suppliers, along with disagreements among various OPEC members (especially during the Iran-Iraq War and the first Gulf War), reduced the cartel's role for the next two decades. OPEC intervened actively again following the Asian financial crisis—when oil prices dropped to less than \$10/barrel—by setting targets within price bands. OPEC's decision to forgo price targeting and favor market share in November 2014 marked a new step for the cartel.

**Conclusion**

The plunge in the price of oil in 2014–15 has left a large footprint on the global economy and oil markets, but has not yet translated into stronger global growth. Evidence from past episodes shows that sharply declining oil prices were generally followed by quite diverse global growth outcomes, pointing to other important forces either mitigating or reinforcing the impact of declining oil prices on activity. Supply factors appear to have played a dominant role in the recent plunge in oil prices, which bodes well for its eventual impact on the global economy. However, uncertainty remains and positive effects could be mitigated by crisis legacies or weakening long-term growth prospects in some oil-importing countries. Looking ahead, the growing importance of unconventional oil production and technological innovations could lead to lower oil prices with substantial volatility around a new equilibrium level.

ing sector confidence softened in the first quarter of 2015 and industrial production growth slowed as terms of trade deteriorated or domestic production struggled with energy bottlenecks (Brazil, Nigeria, South Africa). Policy uncertainty has weighed on investment in some countries (Bangladesh, Turkey, Nigeria). Elsewhere, fiscal restraint, tight monetary policy, or macroprudential measures are contributing to the slowdown in activity (East Asia).

Growth forecasts have been revised downward for 2015 (Figure 1.15). Developing country growth is now expected to slow to 4.4 percent in 2015, before recovering somewhat by 2017, to 5.4 percent.

Commodity-exporting countries, in particular, are struggling to adjust to low commodity prices. They

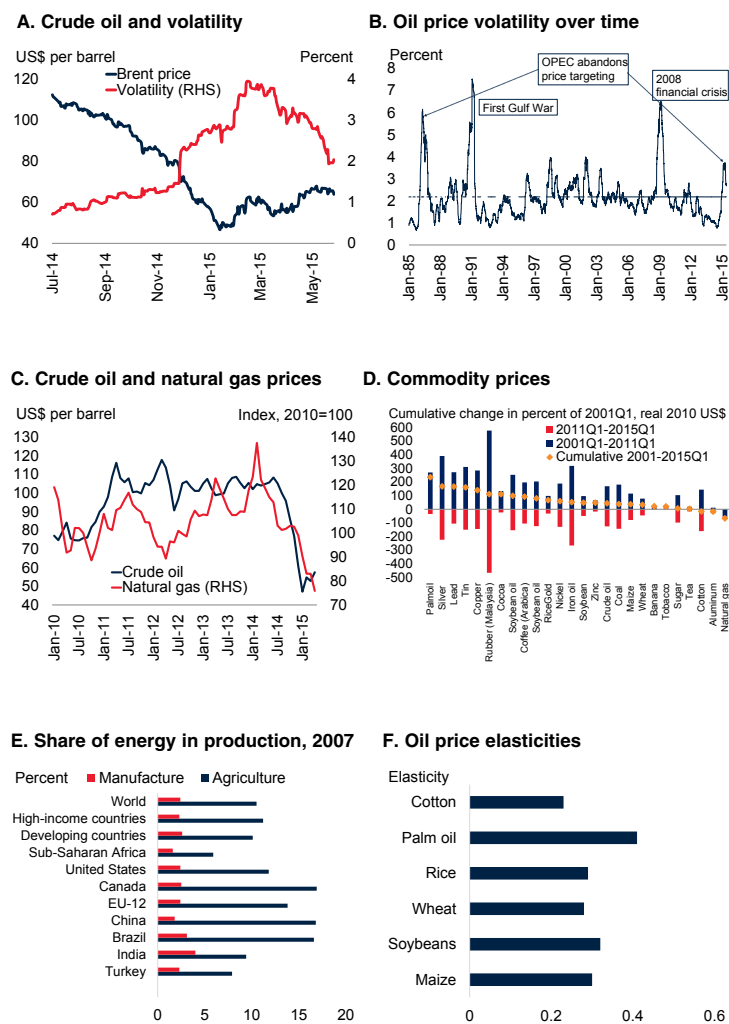
account for about one-third of developing country GDP. Their slowdowns dampen activity in other countries with close trade, finance, and remittance links. As a result, the downward revisions in the forecast are concentrated in the regions with large commodity exporters (the eastern part of Europe and Central Asia, Latin America and the Caribbean, and Sub-Saharan Africa). Commodity-importing countries face other challenges. Turkey, South Africa, and other countries that rely heavily on foreign capital inflows could be negatively affected by rising borrowing costs as the U.S. Federal Reserve raises policy rates. In addition, a structural growth slowdown has been underway in many developing countries as the growth in working age populations, productivity, and investment has eased. Partly as a

result of reforms to raise productivity, South Asia, and East Asia and the Pacific should continue to grow quite rapidly, although at a somewhat slower rate than in previous years (Chapter 2).

- East Asia and Pacific.** Growth is expected to ease to 6.7 percent in 2015 and to remain flat thereafter, reflecting a continued slowdown in China that is only partly offset by a pickup in the rest of the region. Indonesia and Malaysia face pressures from lower global prices of oil, gas, coal, palm oil, and rubber and softer external demand, particularly from China. Lower energy prices will dampen oil and gas production, but should support the large non-oil sectors in both economies. The effects of fiscal restraint (Malaysia, Vietnam), and tighter macroprudential policies (China, Malaysia, Thailand), are expected to be largely offset by a gradual recovery of investment and manufacturing exports, in line with the global recovery.
- Europe and Central Asia.** After slowing to 2.4 percent in 2014, regional growth is expected to weaken further in 2015, to 1.8 percent, before picking up in 2016–17. In the eastern part of the region (Central Asia, Eastern Europe, and South Caucasus), growth slowed particularly sharply, reflecting recessions in Russia and Ukraine, and downturns in oil-exporting economies (Azerbaijan, Kazakhstan) partly cushioned by fiscal and reserve buffers. These regional headwinds had significant negative spillovers to the region’s many oil-importing economies through trade (Armenia, Belarus, Georgia, Moldova), and remittances (Armenia, Georgia, Kyrgyz Republic, Moldova, Tajikistan), which dropped sharply from the fourth quarter of 2014. This more than offset the benefits of low oil prices, caused depreciation and rising inflation, and compelled a number of central banks to raise interest rates since mid-2014 (Armenia, Georgia, Kyrgyz Republic, Moldova, Tajikistan). In contrast, growth accelerated modestly in the western part of the region led by Hungary, the Czech Republic, Poland, Slovakia and Slovenia, supported by strengthening Euro Area activity. The nascent recoveries in Bosnia & Herzegovina and Serbia have been disrupted by heavy floods. Activity continues to be held back by still-stretched balance sheets (Bulgaria, Serbia and, to a lesser extent, Romania), and high unem-

**FIGURE 1.13 Oil price volatility and non-oil commodity prices**

On average, commodity price declines since 2011 have reversed about one-third of price increases during the 2000s. Although oil prices appear to have found a floor, their volatility has risen. Low oil prices also dampen non-oil commodity prices, especially those of natural gas (with contracts typically tied to oil prices), and fertilizers and food (with oil-intensive production).



Source: World Bank staff calculations based on the Global Trade Analysis Project database; World Bank; Baffes and Etienne 2014.

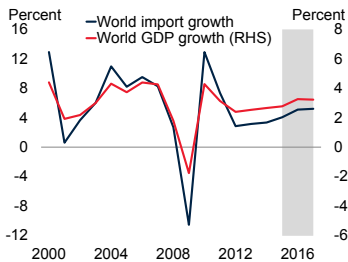
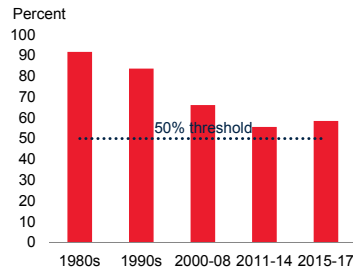
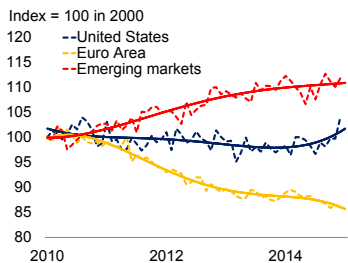
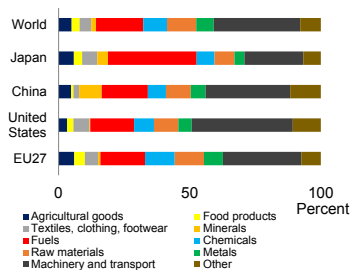
A. Volatility is the standard deviation of the oil price changes and is presented as a 30-day trailing window.  
 B. Values are 30-day rolling standard deviation of daily oil price changes in percent.  
 F. Elasticity estimates are based on a reduced-form, seemingly-unrelated regression estimation using annual data for 1960-2013. According to Baffes and Etienne (2014), crude oil is the most important driver to food prices among all sectoral and macroeconomic fundamentals. An average elasticity of 0.25 implies that the 200 percent increase in energy costs during the past decade could explain more than half of the food price increases.

ployment (particularly in the Western Balkans). Growth in Turkey has slowed, partly reflecting policy uncertainty, while lower oil prices have helped narrow the current account deficit.

- Latin America and the Caribbean.** Growth in the region will decline to 0.4 percent in 2015, as South America struggles with domestic

**FIGURE 1.14 Global trade**

Global trade growth continues to be modest, with a gradual shift towards U.S. import demand. Trade-intensive capital equipment accounts for a sizeable share of U.S. imports.

**A. Global GDP and import growth****B. High-income countries' contribution to global imports****C. Source of world import demand****D. Merchandise imports by major economies and world, by product, 2013**

Sources: World Bank; CPB Netherlands Bureau for Economic Policy Analysis; UN Comtrade database.

A. Grey area indicates forecasts.

C. The figure shows the ratio of manufacturing imports to global manufacturing exports; the trend line (solid line) is a fourth-order polynomial trend function.

macro- and microeconomic challenges, weak investor confidence, and low commodity prices. In Brazil, activity softened in the first quarter of 2015 as confidence fell further, mainly due to a corruption scandal and increases in electricity prices following a drought, while infrastructure bottlenecks and pro-cyclical policies continue to weigh on growth. Sentiment has remained fragile and activity slowed in Mexico as a result of sharply lower oil prices, which could reduce the short-term growth dividends from energy sector reforms, a weak first quarter in the United States, and modest wage short-term growth. However, the economy is expected to strengthen for the remainder of 2015 on rising exports to the United States. For 2016–17, growth in the region is expected to pick up to 2.4 percent, on average, as South America emerges from recession and robust growth in

the United States lifts activity in developing North and Central America, along with the Caribbean.

- Middle East and North Africa.** Growth is expected to remain flat at 2.2 percent in 2015. The expected growth rebound to 3.7 percent in 2016-17 is predicated on improving external demand, strengthening confidence that boosts investments in some oil-importing countries (Arab Republic of Egypt, Jordan), and an assumed gradual stabilization of security. The plunge in oil prices is a particular challenge for oil-exporting countries, most of which have severe security challenges (Iraq, Libya, Republic of Yemen) or have limited buffers (Iran, Iraq). For oil-importing countries, the potential positive effects of lower oil prices are partially offset by spillover effects from more fragile countries in the region, including through lower remittances and security risks. Long standing structural constraints present a chronic obstacle to faster growth in the region. Measures to address these include policies to narrow the gap between private and public employment, level the playing field between firms, and improving education (World Bank 2015a).
- South Asia.** Growth is expected to firm to 7.1 percent in 2015 and 7.4 percent in 2016–17, buoyed by a reinvigorated reform agenda in India and supported by strengthening demand in high-income countries. The decline in global oil prices has benefited the region, improving fiscal and current account balances, enabling subsidy reforms to proceed in India, and facilitating an easing of monetary policy (India, Pakistan, Sri Lanka). In India, gradual implementation of reforms has supported business and investor confidence and encouraged capital inflows. However, credit growth remains modest, reflecting weak bank balance sheets (mainly in public sector banks). This is holding back credit-financed investment.
- Sub-Saharan Africa.** Low oil prices have considerably reduced growth in commodity-exporting countries (Angola, Nigeria), where softening oil sectors have also slowed activity in non-oil sectors. Although South Africa is expected to be one of the main beneficiaries of low oil prices, energy shortages, weak investor sentiment amid policy uncertainty, and by the

anticipated tightening of monetary and fiscal policies continue to hold back activity. Growth in the region is forecast to slow to 4.2 percent, a downward revision of 0.4 percentage point relative to the January 2015 forecasts. This mainly reflects a reassessment of prospects in Nigeria and Angola, following the sharp drop in oil prices, and in South Africa, because of ongoing difficulties in electricity supply. For 2016–17, growth is expected to be only marginally higher as these challenges partially offset higher trading partner growth and the continued expansion in the region’s low-income countries.

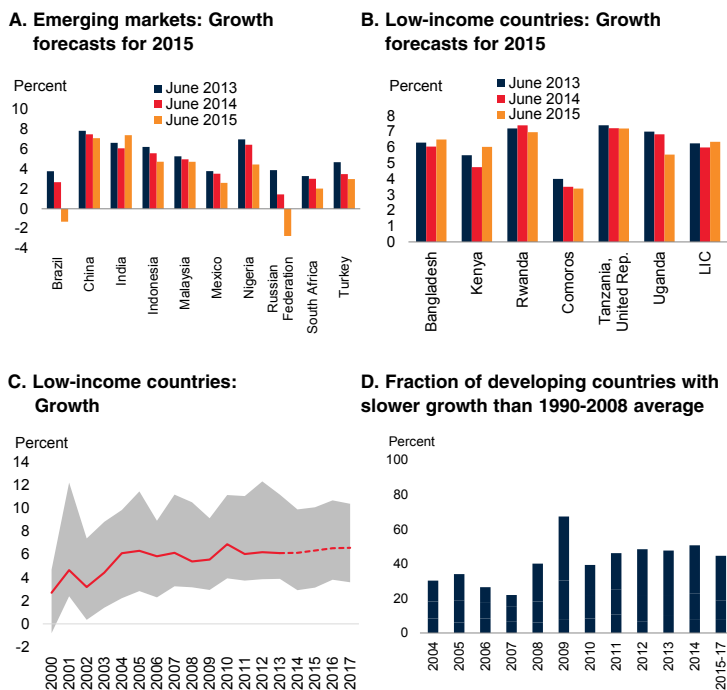
Growth in low-income countries, on average, is expected to remain robust in 2015 at 6.2 percent, before rising to 6.6 percent, on average, in 2016–17. In the short-run, it should be supported by infrastructure (Rwanda, Ethiopia) and mining (DRC, Mozambique, Tanzania) investment (partly financed by China), agricultural growth (Ethiopia), and consumer spending (Bangladesh, Uganda). However, continued weaknesses in the prices of some low-income countries’ main exports (especially base metals) will limit the benefits of the oil price decline (Special Feature 2). In several fragile countries (Madagascar, Mali), growth should pick up as investment rises on the back of increased political stability. Political uncertainty in Bangladesh and the natural disaster in Nepal will dampen growth in 2015. However, generally solid remittance inflows should help to support consumption and, in Nepal, activity should rebound from a sharp decline as reconstruction efforts get underway. In Guinea, Liberia, and Sierra Leone, the Ebola epidemic will continue to constrain economic activity.

### Lower commodity prices: widespread adjustments

The impact of the large real income shift from oil-exporting to oil-importing countries caused by the steep oil price drop in the second half of 2014 has been amplified or mitigated (depending on country characteristics) by declines in most other commodity prices. Commodity price weakness has had significant and immediate adverse effects on activity, and on fiscal and external positions in commodity-exporting countries. In commodity-importing countries, lower oil and food prices have mainly resulted in reduced vulnerabilities—lower inflation and narrower current account and fiscal deficits—whereas

### FIGURE 1.15 Developing and emerging-market growth

Developing country growth forecasts were revised downward again, as sharply lower oil prices reduced activity in oil exporters, while the support to activity in oil-importers appears slower to materialize. Growth in low-income countries continues to be robust as a result of strong public investment, good harvests, and, among oil-importing countries, improving terms of trade.



Source: World Bank.

C. The shaded area indicates the interquartile range. Red line indicates GDP-weighted average.

D. For each year, the fraction of developing countries in which growth is slower than its historical average for 1990-2008. For 2015-17, the average of three years is shown.

benefits for activity have been largely offset by a wide range of country-specific headwinds (see discussion in previous section).

For most commodity exporters, the commodity price declines since 2011, on average, reversed about a third of their increases during 2002-11. The negative terms of trade shock in 2014–2015 is particularly acute for oil-exporting countries (Azerbaijan, Colombia, Kazakhstan, Nigeria, Russia, Venezuela, and to a lesser extent, Mexico) and natural gas-exporting countries (Bolivia, Malaysia, Figure 1.16). Countries reliant on export revenues from metal and other non-energy commodities (Argentina, Indonesia, Peru, South Africa, Zambia) also face challenges. In contrast, Brazil’s large internal market and limited trade openness dampen some of the impact of the terms of trade deterioration. Median growth among commodity-exporting countries could fall 2 percentage points per annum as they transition from peak to



trough in the commodity price cycle (Spatafora et al. 2009), but real exchange rate depreciation and the use of fiscal space could cushion this impact.

The biggest beneficiaries from the commodity price slump are likely to be large energy-importing countries in Asia and Eastern Europe, most notably China, India, and Turkey. The recent fall in oil prices is expected to support consumption by raising real incomes, easing inflation, and by improving current account balances and reducing external vulnerabilities. Even where, as a result of subsidy reform, domestic fuel prices do not decline in line with global energy prices (Arab Republic of Egypt), fiscal and current account deficits are expected to narrow.

### Exchange rate depreciations: competitiveness gains but some financial stability risks

Divergent monetary policies among major economies and the prospect of higher interest rates in the United States, combined with sharply lower oil prices, have put pressures on emerging market currencies and caused volatility. For many developing countries, depreciation against the U.S. dollar since the start of the year has been significantly more pronounced than during the “taper tantrum” in May/June 2013 (Figure 1.17). The depreciation was particularly severe in oil-exporters as their growth prospects dimmed and their credit ratings were downgraded. Some countries with managed exchange rates have intervened in exchange markets to stem depreciation (Algeria, Ghana, Nigeria until February 2014), and Morocco has changed the composition of the currency basket underlying its currency peg away from the euro.

Exchange rate depreciations—in trade-weighted terms—may spur exports and help mitigate the domestic impact of negative terms of trade shocks. However, weakening currencies against the U.S. dollar could also strain balance sheets with sizeable amounts of foreign currency debt and hinder investment, after several years of rapid credit growth and private debt build-up. For many countries, export markets are considerably more diversified than the currency composition of their external liabilities. As a result, the benefits of improved competitiveness may be outweighed by the risks from balance sheet strains associated with sharp depreciations.

While most developing country currencies depreciated against the U.S. dollar, many were broadly sta-

ble or appreciated in trade-weighted terms. Oil-importing emerging market currencies have typically depreciated in trade-weighted terms by less than 3 percent, or appreciated, since mid-2014. After taking into account inflation, most have appreciated in *real*, trade-weighted terms. Competitiveness gains have thus been modest, if any. However, countries heavily reliant on exports of services such as information technology and communications (India, Turkey) could benefit even from modest competitiveness gains since these services tend to respond more strongly to real depreciation than manufacturing (Eichengreen and Gupta 2013; Figure 1.18).

Sharp trade-weighted depreciations in some oil-exporting countries (Colombia, Russia) and Brazil brought real effective exchange rates closer to their long-term averages. Commodity exporters with manufacturing industries that are already well developed, diversified, and open to trade (Malaysia, Mexico) could stand to benefit from important competitiveness gains as a result of depreciations.<sup>6</sup> In contrast, in Brazil, export competitiveness continues to be held back by structural bottlenecks, including weak infrastructure, limited openness to trade, and a small number of exporting firms (Canuto, Fleischhaker and Schellekens 2015).

### Inflation: lower oil prices versus depreciation

In many oil-importing developing countries, plunging oil prices have reduced inflation below inflation targets, increasing the number of countries with low or even negative inflation (Figure 1.19). The decline in inflation has been stronger where oil had a larger weight in consumption baskets, where depreciations were modest, and where fuel subsidies and other price regulations were limited. However, core inflation has remained high in several oil-importing

<sup>6</sup>The less trade-weighted depreciations are passed through to domestic prices, the more they will help competitiveness. However, emerging markets, and commodity-exporting countries especially, generally experience a larger exchange rate pass-through to export prices than advanced countries, possibly because of limited pricing power on international markets (Campa and Goldberg 2005). The literature is not unanimous on the larger exchange rate pass-through in emerging markets (e.g., Ca-Zorzi, Hahn, and Sanchez 2007), perhaps because the pass-through has fallen over time (Mihaljek and Klau 2008). However, it appears more pronounced among commodity exporters like Indonesia, South Africa, Mexico and lower in India, Russia, Turkey, Hungary, or the Philippines (Bussière et al. 2014).

countries (Arab Republic of Egypt, Brazil, Indonesia, Nicaragua, South Africa, Tunisia, Turkey).

This disinflationary impact of lower oil prices should be transitory, fading during the second half of 2015 and in 2016. On average, a 45 percent oil price decline could be reflected in a decline in global inflation of 0.7–1.2 percent in the first year, with the effect dissipating rapidly thereafter (Baffes et al. 2015).

In some countries, lower oil prices have magnified downward pressures on inflation from anemic demand or overcapacity. This is especially the case in Eastern Europe and parts of East Asia. For example, inflation has been near-zero or below-target since well before the oil price plunge in Hungary and Bulgaria. In China, persistent deflation in producer prices suggests a build-up of overcapacity and loss of corporate pricing power, adding to balance sheet pressures of highly indebted corporates.

In contrast, in some oil-exporting countries (Colombia, Nigeria, Russia) or countries struggling with weakening investor confidence (Brazil), sharply depreciating currencies, increased administered prices, or domestic demand pressures contributed to rising inflation. This pass-through of recent depreciation into inflation is expected to be short-lived in countries with credible central banks and other institutional features that help anchor inflation expectations (Taylor 2000; Gagnon and Ihrig 2004).

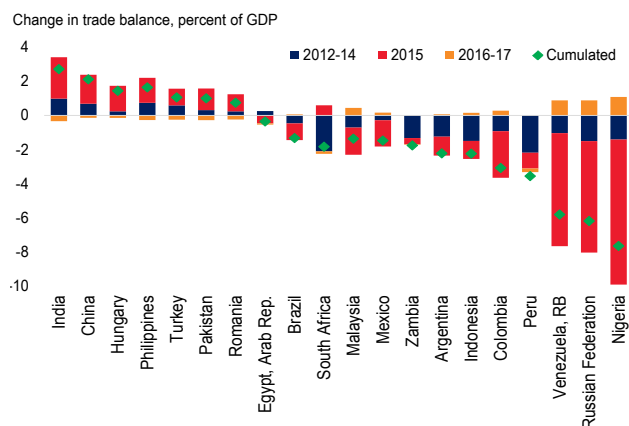
### Private debt buildup: weighing on domestic demand

Since 2009, record-low interest rates and access to abundant global liquidity have contributed to sizeable private debt buildups in a growing number of countries (Figure 1.20). By 2013, credit to the non-bank corporate sector in large emerging markets had exceeded 100 percent of GDP, compared with about 60 percent of GDP pre-crisis. The private debt build-up was particularly large in the non-financial corporate and household sectors of East Asia and Latin America. Some of the debt build-up was financed externally. As a result, private external debt is sizeable in several developing countries, especially in Europe and Central Asia.

Since 2014, credit growth has slowed sharply in many emerging market economies, weighing on domestic demand. In some cases, monetary policy tightened to adjust to deteriorating terms of trade

### FIGURE 1.16 Terms of trade effect on GDP

Terms of trade deterioration, following a sharp reversal of earlier commodity price gains, is causing slowdowns in commodity-exporting countries.



Source: World Bank.

Note: Impact on trade balance (% of GDP) of terms of trade changes associated with commodity price movements.

(Azerbaijan, Columbia, Indonesia, and Kazakhstan); in others, macroprudential regulations were tightened to contain financial stability risks after several years of rapid debt buildup (Malaysia, Thailand) or domestic demand pressures (Brazil). In Russia, economic sanctions and higher borrowing costs contributed to a particularly sharp slowdown in credit growth.

A protracted unwinding of earlier credit expansion could severely dent growth. Past episodes of rapid debt buildup were typically followed by several years of weaker growth. For example, after episodes of debt build-ups in excess of 30 percent of GDP over any five year period, median growth slowed in the subsequent two years by more than 2 percentage points.

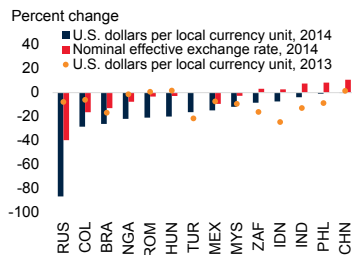
## Risks to the Outlook

*Risks remain tilted to the downside, although somewhat less so than in January. Some pre-existing risks, especially of deflation in the Euro Area, have receded somewhat but new financial stability and growth risks have emerged. Deteriorating prospects in some developing economies, especially commodity-exporting ones, are eroding their resilience. This, together with the possibility of volatility around U.S. monetary policy normalization, is increasing the risk of financial stress. In addition, the broad-based dollar appreciation could slow the U.S. economy more than expected. If these downside risks were to materialize at the same time, the disruptions to developing country financial markets*

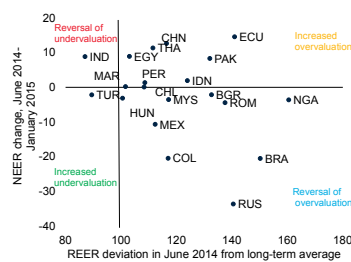
## FIGURE 1.17 Developing country currencies

Sharp depreciations against the U.S. dollar in several developing countries raise balance sheet risks. Depreciations were largest in oil exporters, the Euro Area's close trading partners, and countries with external vulnerabilities. In some countries, they were stemmed by reserve drawdowns or interest rate hikes. In trade-weighted terms, however, depreciations were modest, suggesting limited competitiveness gains.

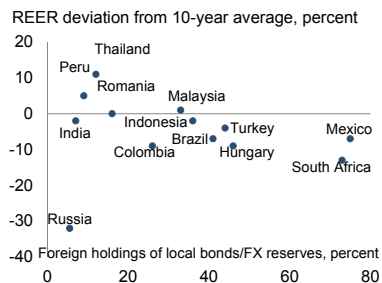
### A. Major emerging-market currencies



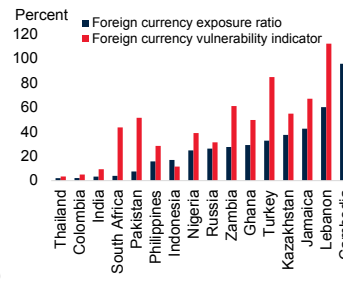
### B. Depreciation since mid-2014 and deviation of the real effective exchange rate from the long-term average



### C. Real effective exchange rate level and exposure to foreign investors



### D. Foreign currency exposure and foreign currency vulnerability indicator



Sources: World Bank; Moody's Statistical Report; JP Morgan; Haver Analytics; Bloomberg.

A. A decrease in the exchange rate against the U.S. dollar and a decrease in the nominal effective exchange rate denote a depreciation. Values for 2013 refer to May 2013 to January 2014; 2014 refers to June 2014 to February 2015.

B. A decline in the nominal effective exchange rate (NEER) or real effective exchange rate (REER) denotes a depreciation.

D. Foreign currency exposure is measured as the ratio of total foreign currency deposits in the domestic banking system/total deposits in the domestic banking system. The foreign currency vulnerability indicator is defined as total foreign currency deposits in the domestic banking system/(official foreign exchange reserves + foreign assets of domestic banks).

*and economies could be substantial. On the upside, the benefits from lower oil and non-oil commodity prices could prove stronger than currently anticipated.*

### Eroding credit worthiness and financial market disruptions

The steady improvement in credit ratings across emerging markets during the early 2000s, mainly for commodity-exporting countries, started reversing after 2012. Emerging market credit worthiness is eroding, especially in oil-exporting countries, at

the same time as the approaching first rate increase by the U.S. Federal Reserve nears. Rising concerns about widespread emerging market credit rating downgrades or bouts of financial market volatility (such as during the “taper tantrum” in May/June 2013) would increase the risk of financial market disruptions in developing countries with high vulnerabilities or weak growth prospects.<sup>7</sup>

Although the U.S. Federal Reserve has adjusted its guidance to prepare markets for monetary policy tightening, long-term interest rates in the United States remain low. A significant gap between the policy rate expectations of market participants and those of members of the Federal Reserve Open Market Committee exists over the medium-term, exceeding 100 basis points for 2017 (Figure 1.21). The presence of such a wedge increases the risk, especially around policy announcement dates, of a sharp upward adjustment of market expectations that is accompanied by a sudden rise in long-term interest rates and risk premia (Special Feature 1).

Capital flows to developing countries respond strongly to risk appetite, and to interest rate movements in core reserve currencies, most prominently the U.S. dollar (Bruno and Shin 2013; Forbes and Warnock 2012; Fratzscher, 2011; World Bank 2014b). An abrupt market reaction to a change in Fed policy could result in sudden stops in capital inflows to developing countries and a reassessment of credit risk in those economies.

Tightening financial conditions, a general reassessment of credit and liquidity risks, and broad-based U.S. dollar appreciation could amplify deteriorating prospects and rising vulnerabilities, especially in oil-exporting countries. Weak commodity prices—compounded by weak global trade, prospects for tightening global financial conditions, deteriorating public finances, and political concerns—have contributed to a number of ratings downgrades in developing countries since 2013 (Brazil, Nigeria, Russia, South Africa, Ukraine, Venezuela). By comparison, upgrades (Mexico, the Philippines) have been rare.

Rising concerns about credit downgrades in a number of larger emerging market economies could

<sup>7</sup>Oil-importing developing countries (Indonesia, South Africa, Turkey) most affected by the turmoil of May/June 2013 could be less susceptible to turmoil in future episodes as their current account and fiscal deficits and inflation rates have declined.



cause a general reappraisal of risk assets that spreads to other emerging and frontier markets. Several large emerging markets already struggle to maintain their credit ratings. Credit rating downgrades are typically anticipated in credit default swap (CDS) markets, which blunts the direct impact of the downgrade announcement (Hull, Predescu and White 2004; Norden and Weber 2004). In some developing countries, sovereign CDS spreads have already increased beyond those of similarly rated sovereigns (Brazil, Kazakhstan, Turkey, South Africa; Figure 1.22). That said, the risk remains that ratings downgrades trigger a repricing, even if partially anticipated.

A reassessment of credit and liquidity risk may be accompanied by capital outflows, reserve losses, sharp depreciations, and rising borrowing costs. These could strain balance sheets of corporates and, by raising nonperforming loans, those of banks. Although banking systems in most oil-exporting countries have been considered resilient to oil price changes in stress tests (Baffes et al. 2015), financial strains could eventually emerge if low oil prices coincide with tightening financial conditions, weak growth, and currency depreciation.

### Excessive U.S. dollar appreciation

The recovery in the United States since mid-2014 has supported global growth, but has been accompanied by a significant appreciation of the U.S. dollar (Figure 1.23). To the extent that the broad-based dollar appreciation reflects robust growth prospects in the United States compared with its trading partners, the dollar appreciation benefits trading partners and helps reignite a robust global recovery.

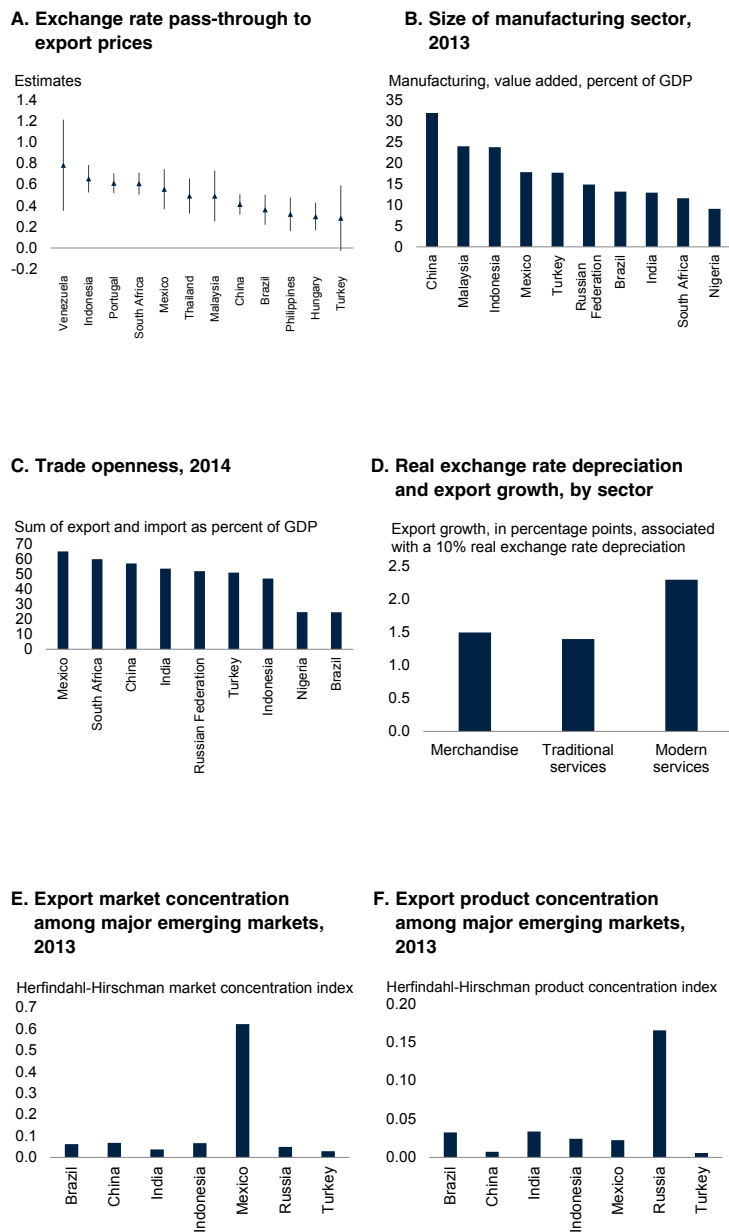
However, there is a risk that the dollar appreciation is more than warranted by U.S. growth prospects, or that it does not invigorate activity in U.S. trading partners as expected. In this case, it could choke the global recovery that is still quite fragile.

The impact on U.S. GDP of a sustained U.S. dollar appreciation could be sizeable. Based on elasticities derived from the Federal Reserve Board staff's large-scale macroeconomic model (FRB/US), a 10 percent real effective appreciation of the U.S. dollar (back to its 2002 peak) could reduce U.S. GDP by as much as ¾ of a percentage point below the baseline after two years.

A 1 percentage point decline in U.S. GDP over two years would have important repercussions for global

## FIGURE 1.18 Exchange rates and competitiveness in major emerging economies

Exchange rate pass-through into domestic prices and costs varies widely across countries. It tends to be larger in developing countries with more concentrated export structures, in particular natural resource exports. Exports of modern services in communications and information technology appear to respond more strongly than in manufacturing.



Sources: Bussiere et al. (2014); World Bank; UN Comtrade database; Eichengreen and Gupta (2013).

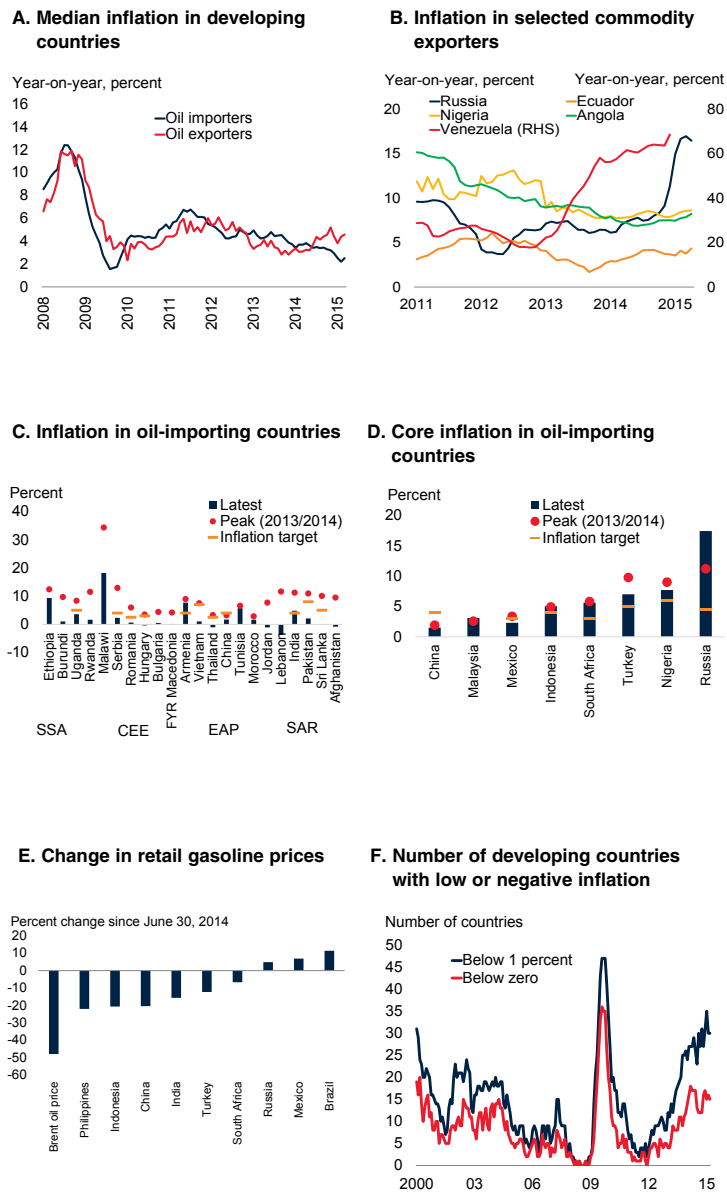
D. The figure reports the results of a model using annual data for 1980–2009 for 66 developed and developing countries. Traditional services include trade and transport, tourism, financial services, and insurance. Modern services refers to communications, computer information, and other related services.

E. The Herfindahl-Hirschman index of market concentration is measured on a scale of 0 to 1, with a value close to 1 (0) indicating that a country's merchandise exports go to very few (many) markets.

F. The Herfindahl-Hirschman index of product concentration is measured on a scale of 0 to 1, with a value close to 1 (0) indicating that a country's merchandise exports are concentrated in very few (many) sectors.

**FIGURE 1.19 Inflation in developing countries**

Lower oil prices have reduced inflation in many oil-importing developing countries, allowing their central banks to cut policy rates to support activity. However, currency depreciations in oil-exporting countries have raised inflation and compelled central banks to raise policy rates.



Source: World Bank; www.globalpetrolprices.com; Haver Analytics; Barclays.

A. Hydrocarbon exporters (as proxy for oil exporters) are Algeria, Angola, Argentina, Azerbaijan, Cameroon, Cote d'Ivoire, Colombia, Chad, Ecuador, Gabon, Indonesia, Iran, Iraq, Kazakhstan, Libya, Malaysia, Mexico, Nigeria, Papua New Guinea, South Africa, Sudan, Turkmenistan, Uzbekistan, Venezuela, Vietnam, and Yemen.

C. India's inflation target is 4 percent by 2017. "Latest" indicates February 2015.

D. "Latest" indicates March 2015.

F. The latest observation is March 2015. Data for 120 developing countries (data for 89 available in March 2015).

economic prospects. In particular, it could reduce GDP in close trading partners in Latin America and the Caribbean by up to one percentage point. Elsewhere, especially in economies that are less reliant on exports to the United States, the impact would be smaller but still negative. In addition to these trade effects, sustained dollar appreciation could weaken sovereign, corporate, and household balance sheets with significant stocks of foreign-currency denominated debt.

### Stagnation in the Euro Area or Japan

The risk of a prolonged period of stagnation and deflation in the Euro Area appears to have receded as inflation expectations have risen following the ECB's quantitative easing program. However, while quantitative easing may attenuate deflation risks, underlying weaknesses and legacies from the global financial and Euro Area crises have yet to be fully resolved. Several months of negative inflation as a result of falling oil prices could yet de-anchor inflation expectations. Economic and financial stress in Greece presents a risk to the regional outlook, although the exposures of other parts of the Euro Area have diminished since 2010 (Chapter 2).

While the probability of a slide into prolonged period of stagnation and deflation in the Euro Area is declining, the impact for the rest of the world could be more pronounced than that of Japan in the 1990s.

- **Trade.** The Euro Area accounts for more than one-sixth of global GDP, and in excess of one-quarter of global trade and cross-border banking system assets—much more than Japan's shares in the 1990s (Figure 1.24). Developing countries in Eastern Europe and North Africa rely particularly heavily on the Euro Area as an export market.
- **Bank lending.** Euro Area banks are more internationalized in their lending than Japanese banks, despite sharp cuts after the global financial crisis (World Bank 2015a, Dailami and Adams-Kane 2012). Should non-performing loans increase in a low-growth environment and erode European banks' capital cushions, (despite improved capital buffers over the past few years), they could become more reluctant to fund lending abroad. In addition, changes in Euro Area market sentiment could gener-

ate negative international financial market spillovers.

A prolonged period of Euro Area stagnation—perhaps triggered by spillovers from renewed economic and financial stress in its periphery—could raise sovereign and corporate risk premia, as investors reassess growth prospects, and might force some countries to tighten fiscal policy yet further. Persistently high unemployment and anemic investment could undermine potential longer-term growth. The effect could be even larger if, in addition, bank lending supply contracts (Fadejeva, Feldkircher, and Reininger 2014). Under such conditions, the macroeconomic effects of a regulatory tightening designed to ensure financial stability would have to be carefully monitored.<sup>8</sup> A slowdown in the Euro Area would affect countries in Eastern Europe and North Africa most immediately and strongly, through tight trade, remittance, and bank links. Financial markets in Latin America, where Euro Area residents account for a sizeable share of financial asset holdings, could be dampened by Euro Area deleveraging.

### Oil price risks

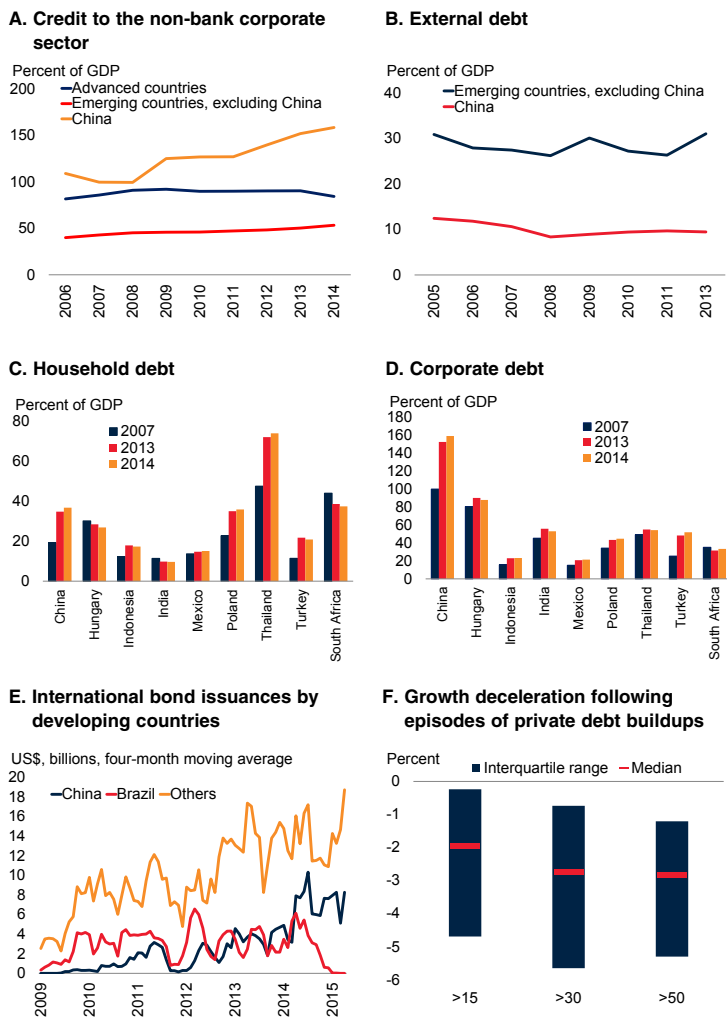
Risks related to oil prices have become somewhat more balanced since January, with predominantly downside risks to oil prices themselves and some upside risks to their impact. Thus far, the benefits from lower oil prices for oil-importing countries have mainly been reflected in shrinking vulnerabilities such as lower inflation and improved external and fiscal accounts. Activity in many oil-importing countries, in contrast, has disappointed. However, lower oil prices could yet boost activity more than expected.

Risks to oil prices themselves are tilted to the downside. Security risks could be resolved unexpectedly. Alternatively, an international agreement with Iran could be reached and Iran could ramp up oil production and exports faster than expected. Either event would allow the release of additional oil supplies into global markets. This could depress oil prices further and would raise global activity. However, it

<sup>8</sup>A period of stagnation could be associated with a 4 percent decline in Euro Area GDP and a 1 percent decline in global GDP, over five years (IMF 2013b). In the highly open economies of Eastern Europe, tight bank lending and trade links mean that a 1 percent decline in Euro Area real GDP could reduce real GDP by as much as 2.5 percent below baseline over two years (Fadejeva, Feldkircher, and Reininger 2014). Through remittance and trade ties, such a slowdown could reduce activity in North Africa by about 1 percent (IMF 2013c).

### FIGURE 1.20 Private debt in developing countries

Private debt rose rapidly in several developing countries over the past five years until the recent slowdown. Similar past debt buildups were followed by sharp growth slowdowns. Household debt is particularly high in parts of East Asia, South Africa, and Poland; whereas corporate debt is particularly high in parts of Eastern Europe, East Asia, and Brazil.

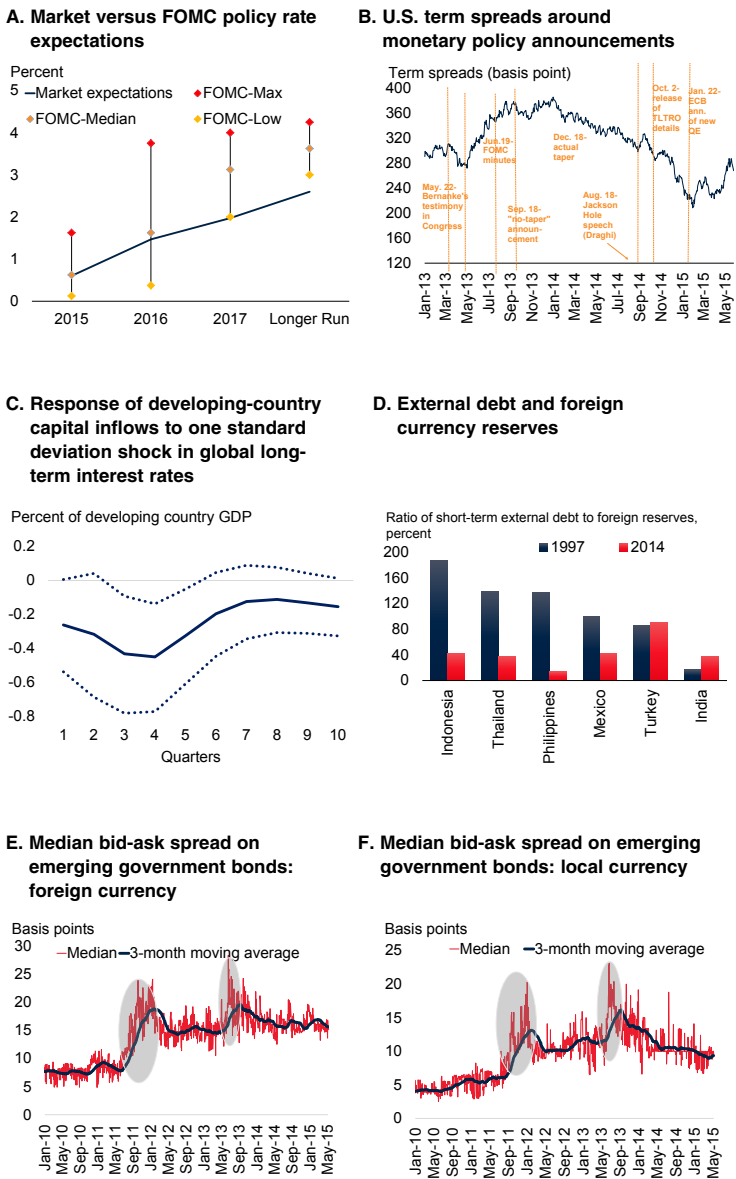


Sources: World Bank; Bank for International Settlements; World Development Indicators; Dealogic.  
 A. Emerging countries (excluding China) are Czech Republic, Hungary, India, Indonesia, Mexico, Poland, Republic of Korea, South Africa, Thailand, and Turkey. Values are GDP-weighted averages.  
 B. Emerging countries (excluding China) are Argentina, Brazil, Colombia, Hungary, Indonesia, India, Malaysia, Mexico, Nigeria, Philippines, South Africa, Thailand, Turkey, and Venezuela. Values are GDP-weighted averages.  
 C. For reasons of data availability, Q1 2008 data for South Africa instead of 2007 data.  
 D. Brazil's data represents private debt for lack of available data breakdown. For reasons of data availability, Q1 2008 data for South Africa is used, instead of 2007 data.  
 F. The figure shows the range of growth decelerations in a sample of 16 developing countries after an increase in credit to the private sector in excess of 15, 30, and 50 percentage points of GDP over the preceding five years.

would also add to financial, fiscal, and external pressures in oil-exporting countries and could discourage exploration and development of new capacity in developing countries. As activity and real income growth slows in oil-exporting countries, their labor markets and non-oil sectors may also soften. Espe-

**FIGURE 1.21 Risk of a rough awakening**

The gap between U.S. policy interest rate expectations of financial markets over the next few years and the views of the Federal Reserve Open Market Committee suggests there may be a risk of an abrupt adjustment in the yield curve, and a reappraisal of credit risk. This could lead to a sharp decline in capital flows to developing countries. Some developing countries have more limited reserve buffers than others.



Source: World Bank; Bloomberg; U.S. Federal Open Market Committee.

A. FOMC = Federal Open Market Committee.

B. Values are the spread between U.S. 30-year and 1-year government bonds.

C. Global long-term interest rates are a GDP weighted average of 10-year government bond yields in G-4 countries (United States, Euro Area, Japan and the United Kingdom). Impulse response derived from a VAR model linking aggregate capital inflows to developing countries (as a percent their combined GDP), to quarterly real GDP growth in both developing and G-4 countries, G-4 short-term rates, G-4 long-term rates, and the VIX index of implied volatility of S&P 500 options. Dotted lines indicate 90% confidence interval.

E. Median bid-ask spreads for 10-year government bonds of Brazil, Chile, Colombia, Hungary, Indonesia, Korea, Lithuania, Philippines, Poland, Romania, Turkey, and South Africa.

F. Median bid-ask spreads for 10-year government bonds of Brazil, Chile, Colombia, Hungary, Indonesia, Korea, Lithuania, Philippines, Poland, Romania, Turkey, and South Africa.

cially in Gulf Cooperation Countries, this could be associated with lower remittance outflows and less demand for foreign construction services.

Conversely, although tensions between Ukraine and Russia may be easing, security risks are mounting in the Middle East and North Africa (Chapter 2). Escalating violence in oil-exporting countries could disrupt oil production and transport facilities, and trigger abrupt spikes in oil prices. While many oil-exporting countries would benefit, the current narrowing of vulnerabilities in oil-importing countries would come to a halt.

**Deeper-than-expected slowdown in China**

Although low-probability, China's anticipated gradual rebalancing of drivers of growth away from investment could still turn into a steep decline in investment. The reforms that are currently being cautiously implemented could, unintendedly, disrupt growth. This could include a correction in real estate markets, contraction in real estate investment and construction, and a rapid unwinding of financial vulnerabilities (Figure 1.25). As sectors operating with low capacity utilization wind down their activities—as part of the authorities' reform plans—they could slide into financial distress. This could result in non-performing loans for financial intermediaries and other investors. Weakening of lending institutions' capital bases could lead to a more general tightening of credit.

In principle, the authorities have sufficient buffers to recapitalize banks and corporates. General government debt is below 60 percent of GDP (including contingent liabilities from local government financing vehicles). Given capital and financial sector controls, there are few low-risk savings vehicles beyond deposits in the predominantly state-owned banking system. This facilitates intervention to stabilize deposits in the event of a loss of confidence. Capital controls limit large outflows abroad.

However, to avoid the recognition of losses and the need for recapitalization, financial intermediaries may be inclined to roll over nonperforming loans to ailing firms. This could constrain lending to productive firms and could usher in a prolonged period of stagnation, as in Japan in the mid-1990s.<sup>9</sup>

<sup>9</sup>The drop in asset prices in Japan in 1989-91 severely weakened the balance sheets of heavily indebted households, lending institutions,



If confidence in China’s growth prospects were to wane as high-income country growth strengthens, private capital outflows could accelerate, despite capital controls, triggering a tightening of domestic financing conditions.

## Policy Challenges

### Policy challenges in major economies

Monetary policies are expected to remain highly accommodative, except in the United States where the first policy rate increase is currently projected to take place later in 2015. Fiscal consolidation is expected to ease across major economies, but several have yet to put in place plans to secure long-term fiscal sustainability. Structural reforms are underway in Japan and China, but need to be invigorated in the Euro Area and the United States.

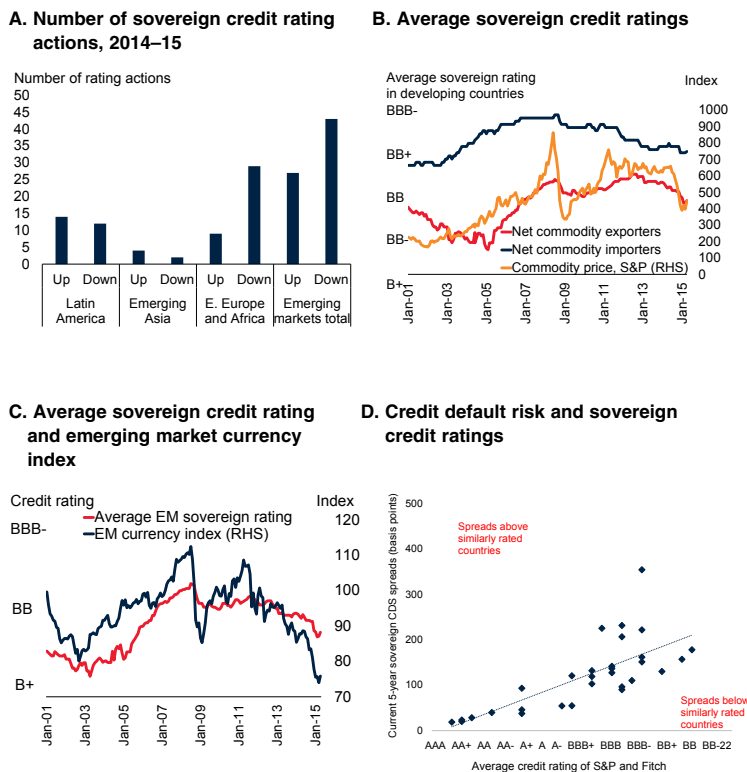
Monetary policy in the **United States** is expected to begin to tighten in the second half of 2015 for the first time since the 2008 financial crisis, provided activity continues to be robust. This may unwind pockets of excessive risk-taking in domestic credit markets (such as high-yield bond markets and real estate investment vehicles) that may have built up amidst abundant liquidity and exceptionally low interest rates. Fiscal policy has eased to a broadly neutral stance in 2014–15, having weighed on activity in previous years. A comprehensive long-term plan to ensure fiscal sustainability is needed, covering health care cost containment, tax reform, improved quality of public spending, and adequate infrastructure investment. Although important health care reforms were implemented in 2013–14 to help reduce costs in government health care provision and increase risk pooling elsewhere, greater efficiency gains are needed to ensure long-term sustainability. The tax system needs to be streamlined, the persistence of long-term unemployment reduced, and the education system made more inclusive (OECD 2015a).

Quantitative easing will support activity and reduce deflation concerns in the **Euro Area**, but a lasting recovery needs to be secured by appropriate

and non-financial corporates (Koo 2011). As banks faced mounting impaired loans, lending to sound companies contracted—partly the result of rolling over loans to weak companies (Caballero, Hoshi and Kashyap 2006). Investment and consumption growth declined sharply and persistently.

**FIGURE 1.22 Emerging market credit ratings**

Credit ratings have begun to deteriorate, especially, for commodity exporters. The downgrades have coincided with depreciating currencies and rising credit default swap (CDS) spreads. In several countries, CDS spreads are now in line with those of lower-rated countries.

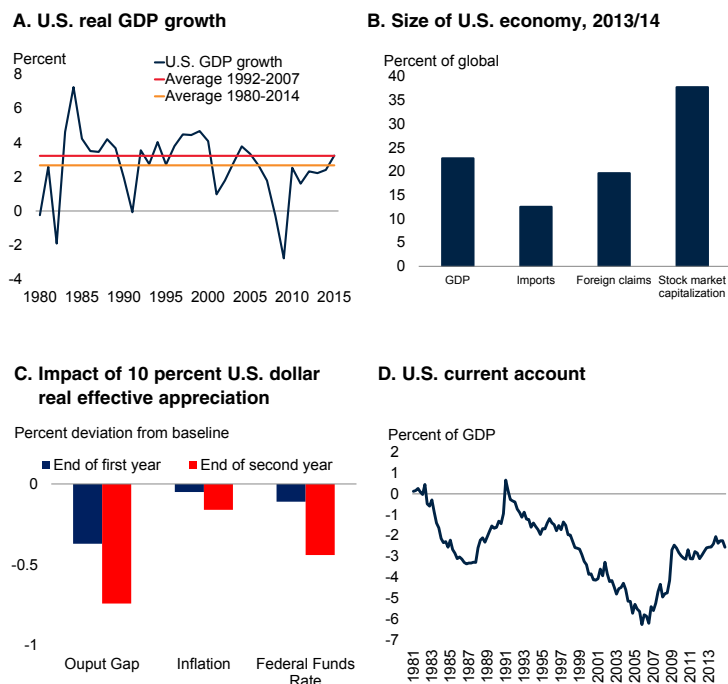


Sources: World Bank; Bloomberg.  
 B. The sovereign rating is calculated based on the simple average of long-term foreign-currency credit ratings of countries by Standard & Poor’s Rating Service. The latest observation is April 2015.  
 C. The sovereign rating is calculated based on the simple average of long-term foreign-currency credit ratings of countries by Standard & Poor’s Rating Service.

fiscal policy support and growth-enhancing structural reforms. In 2015, fiscal policy is expected to be broadly neutral, although, under the Excessive Deficit Procedure, several countries (Cyprus, France, Greece, Ireland, Malta, Portugal, Slovenia, Spain) need to proceed with their fiscal consolidation plans. Activity in the **European Union** may also be supported by a €315 billion (2.2 percent of GDP) investment program (the “Juncker Plan”) intended to stimulate growth and create jobs. The initiative should help better leverage the EU budget and European Investment Bank programs for greater private investment. However, long-term growth remains weighed down by rigid and fragmented labor, product, and services markets, hampering productivity and innovation. Notwithstanding significant

### FIGURE 1.23 Risk of excessive U.S. dollar appreciation

Growth in the United States remains robust, but a further strengthening of the U.S. dollar could curtail the recovery. Spillovers from a U.S. slowdown would reduce activity elsewhere (and especially in Latin America and the Caribbean). The U.S. current account deficit is well below pre-crisis levels.



Sources: World Bank; Federal Reserve Board (2014); Haver Analytics; Bank for International Settlements (BIS); World Federation of Exchanges.

A. GDP = gross domestic product.

B. Values are from 2014 data for GDP and imports; Q3 2014 data for foreign claims of BIS-reporting banks; and 2013 data for stock market capitalization.

C. Elasticities to U.S. dollar appreciation are from Federal Reserve Board (Laforte and Roberts, 2014; Brayton, Laubach and Reifschneider, 2014).

steps to strengthen bank balance sheets, enhance supervision and contain bank-sovereign feedback loops in bank resolution, two important elements of a Euro Area banking union (financial system backstops and recapitalization) remain national, thus reducing the support available for weaker banks in stress situation. In France and Italy, proposed reforms to improve competitiveness have been held up, while acute challenges faced by Greece will require a clearer path towards fiscal sustainability.

For the time being, the clear priority for **Japan** is for accommodative policies, to sustain growth and inflation momentum, coupled with growth-enhancing reforms. Japan's experience in the 1990s highlights the importance of avoiding premature policy tightening in response to early signs of green shoots. Indeed, monetary policy remains highly accommodative in Japan, while medium-term fiscal

consolidation and structural reform efforts are underway. The Bank of Japan continues to implement its quantitative easing program as planned, and a further expansion remains possible later in 2015 if inflation fails to pick up significantly. Financial markets expect policy rates to remain at zero until end-2018. Japanese banks and some pension funds continue to shift their portfolios away from holdings of Japanese government bonds, whose yields remain low. A search for higher yields by financial institutions could lead to balance sheet vulnerabilities. Government debt sustainability is under pressure from a fiscal deficit in excess of 7 percent of GDP in fiscal year 2014 and public debt at 234 percent of GDP in 2015. The planned consolidation for fiscal year 2015 and beyond will, however, be challenging in light of increasing outlays for social welfare and defense and delays in implementing the next consumption tax increase. Bolstered by an election victory in December 2014, the government has committed to speeding up its ambitious structural reform agenda.

With inflation contained, the monetary policy interest rate in the **United Kingdom** is expected to rise only gradually from 2016, despite diminishing slack and robust domestic demand. Demand has also been strengthened by allowing automatic fiscal stabilizers to operate in recent years. However, revenue and expenditure reforms are needed to meet medium-term fiscal objectives. Investments to reduce bottlenecks in infrastructure and to upgrade human capital will be key to supporting productivity improvements needed to sustain strong growth (IMF 2014b).

**China** continues to implement, in several steps, the reforms announced in November 2013. These efforts are being supported by selective accommodative monetary and fiscal policies, to prevent a sharp growth slowdown. The central bank has repeatedly implemented targeted measures to ease pockets of liquidity tightness. Progress in implementing structural reforms is notable in the following areas:

- *Fiscal reforms.* A revised budget law and new rules on local government borrowing were introduced to control local government borrowing and switch to borrowing through local government bonds. However, local government finances need to be brought onto a more sustainable footing more broadly, addressing expenditure and revenue mismatches across different levels of government, and reinforcing

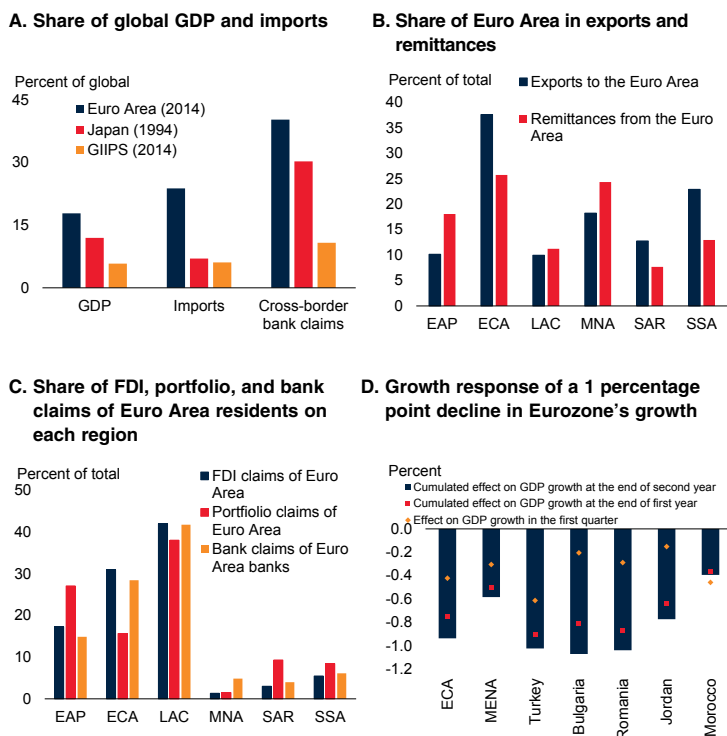
local government revenue capacity including through a property tax. The business tax is being replaced with value-added taxation (e.g. in railways since January 2014 and in telecommunications since June 2014) and environmental taxes have been increased.

- Financial sector reform.** The deposit rate ceiling was raised, deposit insurance was introduced in May, and a Financial Consumer Protection Bureau was established. Some nontraditional banking activity was reined in, for example e-financing platforms. Margin requirements for stock market transactions were tightened and the Shanghai-Hong Kong Stock Market Connect program facilitated some international capital flows. The exchange rate band was widened from 1 to 2 percent.
- Energy sector reform.** New rules were issued in March 2015 to separate electricity generation from distribution, and to encourage greater competition. Private companies will be allowed entry. However, an independent competition authority aimed at ensuring well-functioning markets remains to be established. In addition, higher fuel taxation and stricter enforcement of environmental rules have been implemented to reduce pollution.
- Administrative and other reforms.** Administrative reforms were accelerated including by reducing and centralizing preconstruction approvals, and court proceedings were streamlined to facilitate contract enforcement. Pilots were initiated to convert land use rights into ownership shares; to allow some municipal government bond issuance; to corporatize state-owned enterprises; to operate a cap-and-trade trading system to limit carbon emissions; and to further relax the household registration system.

Much of the reform agenda, including a broad-based reform of state-owned enterprises, remains to be implemented. Issues that need to be addressed include: implicit and explicit government guarantees, non-binding budget constraints, low efficiency, and a lack of transparency and accountability (World Bank and Development Research Center of the State Council 2014, OECD 2015b).

### FIGURE 1.24 Risk of stagnation and deflation in the Euro Area

Given greater gross domestic product and imports, a prolonged stagnation in the Euro Area could have deeper global repercussions than Japan's decade of slow growth did in the 1990s and early 2000s. Eastern Europe and the Middle East and North Africa would be particularly affected through trade, remittances, and bank exposures. Financial markets in Latin America and the Caribbean could come under pressure from Euro Area deleveraging.



Sources: Bank for International Settlements; International Monetary Fund Coordinated Direct Investment Survey and Coordinated Portfolio Investment Survey; World Bank staff estimates.  
 A. GDP = gross domestic product.  
 C. Investment claims of Euro Area residents at end-2013 for foreign direct investment (FDI), at end-June 2014 for portfolio investment claims, and end-September 2014 for cross-border bank loans.  
 D. Results for the cumulated effect on GDP growth at the end of first and second years are statistically significant at the 16th-84th percentile range based on 2000 draws for ECA, MENA, Turkey, Bulgaria, Romania, and Jordan.

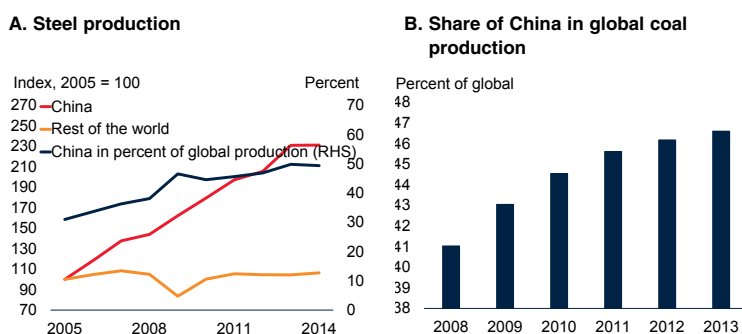
### Monetary policy challenges in developing countries

Against the background of soft growth and the prospect of rising global interest rates, falling oil prices have eased monetary policy constraints in oil-importing countries but opened new policy dilemmas in oil-exporting countries.

Lower oil prices have eased constraints on monetary policy in oil-importing countries by slowing inflation and reducing current account deficits. This has allowed central banks in a number of inflation-targeting or oil-importing countries to cut policy rates to support slowing or weak activity in 2015

## FIGURE 1.25 Risk of a hard landing in China

The risk remains of a hard landing, followed by a period of anemic growth, although it is low-probability. A hard landing could be triggered by financial distress in industries with substantial excess capacity, including steel and coal.



Sources: BP Statistical Review of World Energy June 2014; National Bureau of Statistics of China; World Bank Commodity Price Data (The Pink Sheet).

(Arab Republic of Egypt, India, Peru, Romania; Figure 1.26). In India, the introduction of formal inflation targeting and increased central bank credibility have provided additional policy space. In Eastern Europe, lower oil prices have added to deflationary pressures central banks are struggling with as policy rates are at historic lows. Looking ahead, however, tighter global financing conditions and moderating capital inflows may constrain room for monetary policy maneuvering in emerging markets, especially those with a rapidly rising stock of external debt (Turkey, South Africa).

In commodity-exporting countries, policy tradeoffs have been starkly different as central banks have had to balance the need to support growth with inflation and balance sheet concerns resulting from depreciation pressures. Tightening global financial conditions over the medium term will intensify these dilemmas.

Sustained currency weakness—interacting in some cases with supply constraints (Ghana, Mongolia) or spillovers from geopolitical risks (Central Asia and South Caucasus)—has increased inflation in oil-exporting countries and, for foreign currency borrowers, financial stability risks. While non-concessional external debt, which is mostly foreign currency-denominated, is modest in most developing countries, it has risen considerably since 2011 in some commodity-exporting countries (Indonesia, Mongolia). To contain risks from depreciation pressures, central banks have been compelled to raise policy rates procyclically (Belarus, Mongolia) or to intervene in foreign exchange markets (Mexico, Nigeria, Zambia).

## Shifting fiscal pressures in developing countries

Many oil-exporting countries are tightening fiscal policy, even as growth slows. Oil-importing countries, however, have the opportunity to reform energy subsidies and taxes, and to build fiscal space.

For commodity-exporting countries with flexible exchange rate regimes (Malaysia, Mexico, Peru, Russia), the fiscal impact of declining commodity prices has been somewhat cushioned by depreciating currencies (Figure 1.27), whereas it has been more severe in commodity-exporting countries (Ecuador, Iraq) with fixed exchange rates. Nevertheless, many commodity-exporting countries have had to tighten fiscal policy despite slowing growth. This is particularly the case in countries where fiscal deficits were already large before commodity price declines (Angola, Brazil, Cameroon, Ghana, Mongolia, Venezuela, Zambia), or debt levels were elevated (Ghana, Mongolia), or “rainy day” savings or stabilization funds were of limited size (Mongolia, Nigeria). Concerned about possible credit rating downgrades, policymakers pursued consolidation budgets in several oil-exporting countries (Malaysia, Nigeria). However, despite recent downward revisions in some oil-exporting countries, fiscal breakeven oil prices are estimated to remain at or over \$90 per barrel (Azerbaijan, Gabon, Kazakhstan, Nigeria) or above \$120 per barrel (Angola, Ecuador). The loss in oil revenues for these countries strains government budgets and will generally need to be offset by spending cuts. Unless widening fiscal deficits can be reined in and reduce the burden on tightening monetary policy, private investment could be crowded out (Angola, Gabon, Mongolia, Nigeria, Republic of Congo).

Among oil-importing countries, the drop in oil prices could generate substantial fiscal savings, particularly where fuel prices are subsidized. Notwithstanding significant cuts in 2014 and 2015, especially in East and South Asia, pre-tax subsidies, which allow energy consumers to pay below-cost prices, are high in several developing economies (IMF 2013a; Clements et al. 2014). Lower oil prices have helped some countries deregulate local fuel prices (Arab Republic of Egypt, India). In countries with unusually low energy taxes, lower oil prices also make it easier for governments to raise these



taxes closer to international norms (Arab Republic of Egypt, India, Indonesia). This would help reverse some of the post-crisis spending increases made possible by rapid revenue growth.

In this way, the tailwinds of low oil prices provide an opportunity for oil-importing countries to either build fiscal space, which would allow an effective counter-cyclical response during the next slowdown, or to invest in critical infrastructure or human capital (World Bank, 2015). A priority for rebuilding fiscal space is particularly important in countries that are vulnerable to shocks because of high levels of government debt, particularly where it has risen rapidly since 2010, such as the 10 percentage point of GDP increases in the Arab Republic of Egypt, Cabo Verde, Eritrea, Jordan, Lebanon, Pakistan, and South Sudan. On average, however, developing country government debt-to-GDP ratios declined in low-income countries or has been stable since 2010 in middle-income countries. This contrasts with the strong increase in *private* debt in developing countries since 2010. Where countries have fiscal space, fiscal windfalls from lower oil prices could be used to increase critical investment or buffer any near-term disruptions from structural reforms.

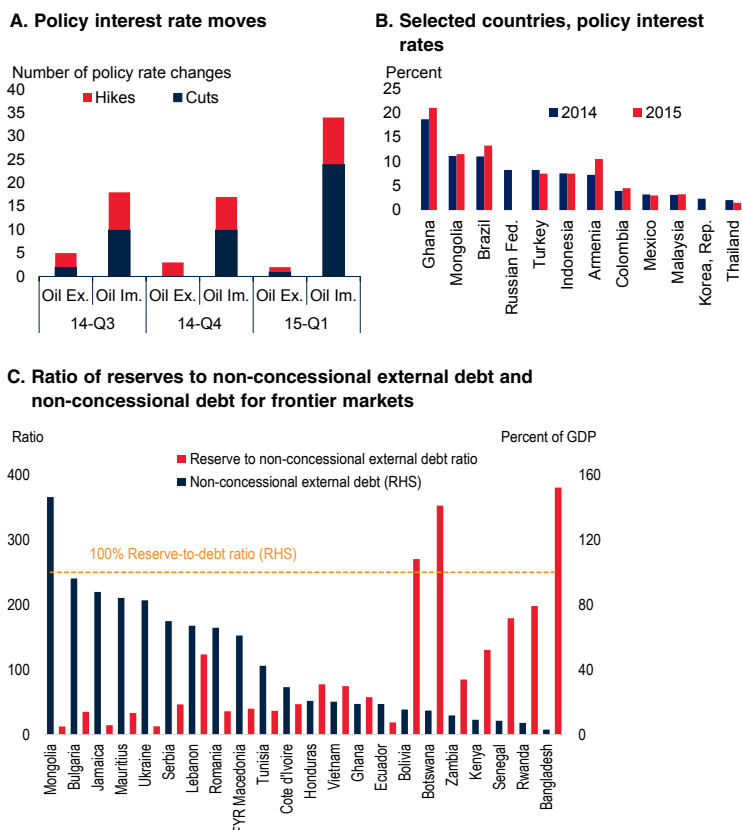
### Reform momentum and needs in developing countries

*While countercyclical fiscal and monetary policies can help smooth the transition, the current juncture puts a premium on structural reforms that ensure a sustainable adjustment to a new equilibrium of low commodity prices and gradually tightening financial conditions. Several large developing countries are gradually implementing ambitious reform agendas, but many are lagging behind.*

As growth in high-income countries picks up, but eases steadily in developing countries, convergence of GDP per capita is expected to slow. For some middle-income commodity exporters, the income gap may well widen over the next two years (Figure 1.28). This reflects declining productivity growth as well as demographic pressures. Investment growth in developing countries has slowed from pre-crisis rates as well as the adoption of productivity-enhancing technology (Fisher 2006). The upcoming tightening in global financial conditions might further hold back investment growth.

### FIGURE 1.26 Monetary policy in developing countries

*Easing inflation has allowed several central banks in oil-importing countries to cut rates. Currency depreciations and associated inflation pressures have compelled central banks of commodity exporters to raise rates. In some countries, the exchange rate risks inherent in high external debt with limited reserve coverage constrain monetary policy room to support activity.*

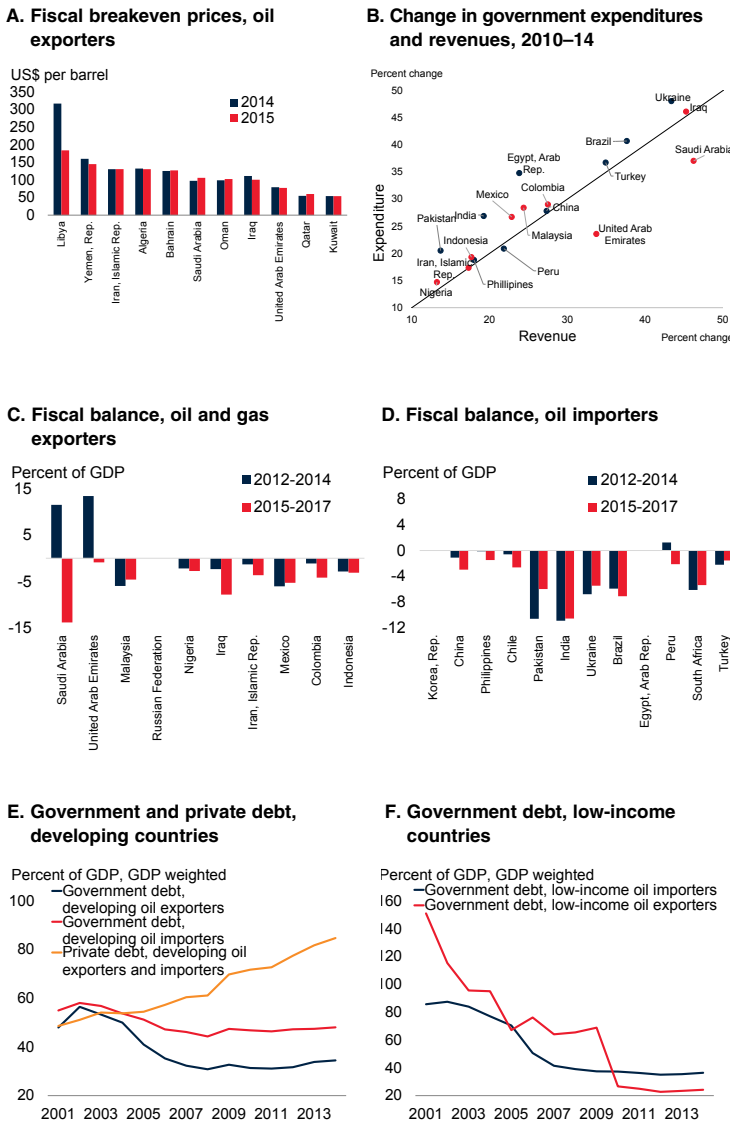


Source: World Bank; Haver Analytics.  
A. Oil Ex. = oil-exporting countries; Oil Im. = oil-importing countries.

Growth in upper-middle-income countries has accounted for almost half of global growth since 2005, but may slow because of demographic factors. Over the past three decades, these countries have benefited from a rising share of the working age population. This has yielded an important “demographic dividend” for growth. For example, China’s demographic dividend has been estimated to have contributed one-quarter to the country’s per capita GDP growth during 1982–2000 (Cai and Wang 2005). The demographic dividend may have accounted for two-fifths of East Asia’s rapid growth during 1965–90 and for 1 percentage point of per capita GDP growth in Southeast Asia between 1975–90 (Bloom, Canning, and Sevilla 2003). Over the next few decades, however, the share of the working age population in middle-income countries is expected to decline and, with it, growth prospects, unless structural reforms lift productivity.

**FIGURE 1.27 Fiscal pressures**

Fiscal balances in oil-exporting countries have come under pressure as resource revenues have fallen. In oil-importing countries, declining fuel subsidies may help reverse some government spending growth since the crisis. Still-moderate government debt in oil-exporting countries and low-income countries may begin to rise as growth slows.



Sources: World Bank including World Development Indicators; International Monetary Fund including World Economic Outlook.  
B. Blue lines are oil importers; Red lines are oil exporters.

- Lower commodity prices are a reminder for commodity-exporting countries of the need to diversify their economies away from commodities (see below).
- In addition to ensuring long-term growth, some reforms can support demand against the backdrop of cyclically slower growth. These include, especially, investments in critical infrastructure and education.
- Productivity growth needs to be increased to stem the trend slowdown in developing country growth and ensure sustained prosperity.

The pace of reform has accelerated in some major emerging-market countries in 2013–15. In 2013–14, Mexico approved a major energy reform that includes opening up deep water and shale oil fields to the private sector, increased competition in the telecommunications sector, widened the tax base, and eased some employment restrictions. China continues to gradually implement its November 2013 reform agenda. India formally adopted inflation targeting in 2015, thus strengthening the credibility of the central bank; reduced barriers to FDI in insurance, telecommunications, railways, and retail; eliminated diesel subsidies while raising excise duties on petroleum and diesel fuel; approved the introduction of a harmonized goods and services tax; and committed to increasing public investment. South Africa put in place some active labor market policies, Turkey has made progress in privatizing energy companies, and Rwanda has reduced a range of licensing and registration requirements.

This said, many emerging market countries fall short of best practices for creating a business environment conducive to productivity growth (Figure 1.29). Indicators of impediments to structural productivity growth—barriers to open markets and access to finance—suggest that the impediments are well below average (among 30 emerging market economies) for Malaysia, Mexico, and South Africa, while significantly above average in Argentina, Russia, and Venezuela (Qureshi, Diaz-Sanchez and Varoudakis 2015). Reducing these barriers to the level of the best-ranking emerging economies could spur productivity and increase resilience to external shocks.

While reform needs are necessarily highly country-specific, they fall into a few categories (G20 2014b). These include easing infrastructure bottlenecks,

At the current juncture, structural reforms are particularly urgent.

- Ambitious reform agendas signal to investors that the authorities are proactive about ensuring long-term growth prospects. This will help support capital inflows and investment even as global financial conditions tighten.

especially in energy and transportation; improving education; reforming labor markets and increasing female participation (Box 1.3); enhancing competition and easing administrative burdens; improving access to private and multilateral financing, reducing barriers to trade and facilitating regional integration; and reforming energy subsidies.<sup>10</sup> Such reforms could help, but may need to be complemented by others, to shift the composition of growth away from consumption (Brazil, Philippines, Turkey), investment (China), or natural resources (many commodity-exporting countries). A number of developing countries provide large fuel subsidies to their populations. In some cases, the cost of subsidies exceeds 5 percent of GDP (IEA, 2014). However, these subsidies often benefit middle-income households more than low-income ones and tilt consumption and production towards energy-intensive activities.

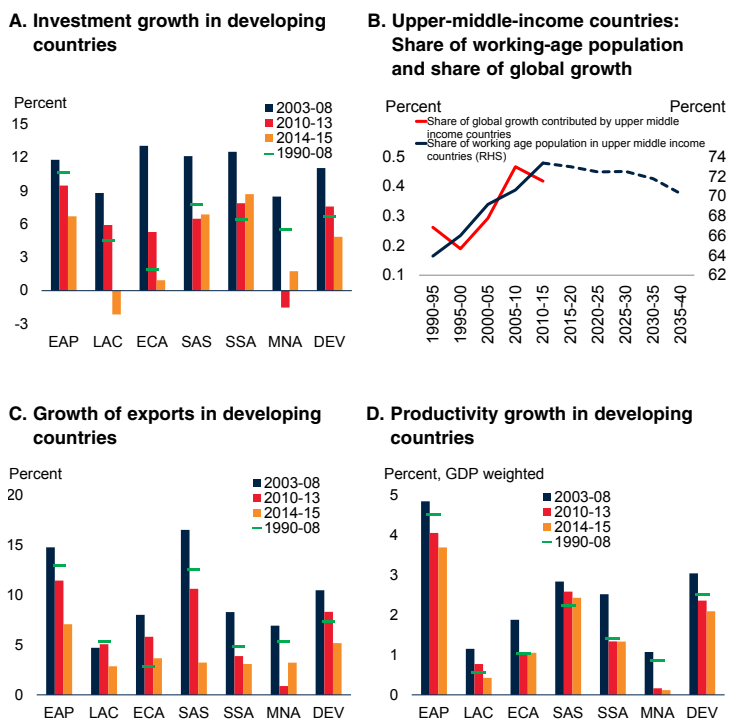
- Savings on subsidies.** When imposed in a non-targeted fashion, the economic benefits of subsidies are concentrated on higher-income households, as these consume more subsidized energy than poor ones. For example, a study of 20 developing countries showed that subsidies on gasoline and LPG are strongly regressive (Arze del Granado, Coady, and Gillingham 2012).<sup>11</sup> In addition, the actual benefits in terms of access to good quality, clean energy sources are a subject of intense debate. Rationing and shortages often accompany subsidized forms of energy consumption. In the case of networked utilities such as electricity, power outages resulting from lack of investment may lead richer households to rely on private generators, leaving poorer households either cut off from electricity or forced to rely on more expensive alternatives.
- Incentives for energy use.** Energy subsidies can also crowd out priority public spending and private investment, encourage excessive energy consumption, reduce incentives for investment in renewable energy, and accel-

<sup>10</sup>Drawing groups with low labor market participation into the labor market could generate substantial productivity gains (Hsieh et al. 2013).

<sup>11</sup>Studies reviewed by the World Bank (IEG, 2008) across developing countries find that only 15–20 percent of subsidies benefited the poorest 40 percent of the population, a result that confirms findings by Coady (2006).

### FIGURE 1.28 Income convergence

Upper-middle-income countries have accounted for about half of global growth since the crisis. However, their growth prospects are deteriorating as their populations age and investment, export, and productivity growth fails to return to historical average rates.



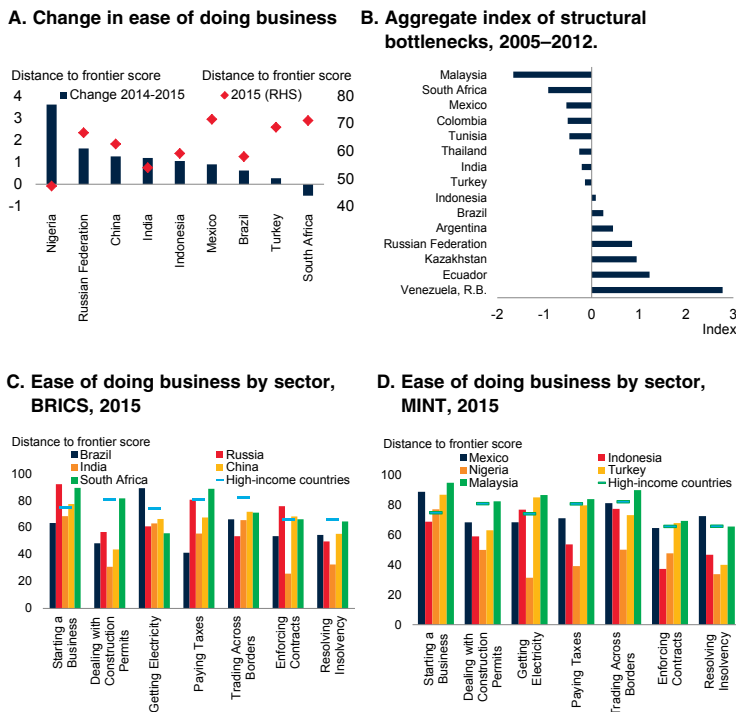
Source: United Nations Population Statistics; World Bank.  
 A. GDP-weighted annual averages. DEV = developing country average. Investment refers to gross fixed capital formation.  
 B. Values are based on the share of population age 15–64 years in the medium-fertility scenario (UN Population Prospects, 2012 revision). Share of global growth is defined as the contribution of upper-middle-income countries to 5-year growth relative to global 5-year growth.  
 C. D. GDP-weighted annual averages. DEV = developing country average.

ate the depletion of natural resources. In fact, low energy costs associated with subsidized or low oil prices may encourage a move toward more fossil fuel-intensive or energy-intensive production. This runs counter to broader environmental goals in many countries. To offset the medium-term incentives for increased oil consumption, while at the same time building fiscal space, policymakers could modify tax policies on the use of energy, especially in countries where fuel taxes are low.

Falling oil prices reduce the need for fuel subsidies, and provide an opportunity for subsidy reform with limited impact on the prices paid by consumers. Such subsidy reform should lead to a comprehensive and permanent shift towards more market-based fuel pricing. This should in turn prevent rising fuel

## FIGURE 1.29 Structural reforms

Some developing countries have initiated structural reforms as growth has slowed. However, in several respects business environments remain weaker, on average, than those in advanced countries. Particular areas of reform are highly country-specific.



Sources: World Bank; Qureshi and Varoudakis (2014).

A. The distance-to-frontier score shows the distance of each economy to the frontier, which represents the best performance observed on each of the indicators across all economies in the *Doing Business* sample since 2005. An economy's distance to the frontier is reflected on a scale from 0 to 100, where 0 represents the lowest performance and 100 represents the frontier.

B. A higher index denotes greater structural bottlenecks.

C. BRICS = Brazil, Russian Federation, India, China, and South Africa.

D. MINT = Mexico, Indonesia, Nigeria, and Turkey.

subsidies when oil prices start increasing again. The Arab Republic of Egypt, India, Indonesia, Iran, Malaysia, and Morocco implemented such reforms in 2013–2015, removing some of the distortions and inefficiencies associated with subsidies. Fiscal resources released by lower fuel subsidies could either be saved to rebuild fiscal space lost after the global financial crisis or reallocated towards better-targeted programs to assist poor households and support critical infrastructure and human capital investments. A broad spectrum of measures could provide more effective means of supporting the poor. For example, cash transfers and near-cash transfers are progressive in a great majority of cases—supporting lower income households more than higher income ones—in contrast to energy subsidies (Komives et al. 2007; Vagliasindi 2012; Figure 1.30). The effectiveness of such measures improves with careful

targeting and administrative capacity.<sup>12</sup> An acceleration of fuel subsidy is both timely and fully aligned with G20 objectives set in the Pittsburgh summit in 2009 to “rationalize and phase out over the medium term inefficient fossil fuel subsidies that encourage wasteful consumption” (G20 2009). The resolution was reaffirmed in St. Petersburg in 2013 and in Brisbane in 2014.<sup>13</sup>

Subsidy reform should be combined with energy tax reform. Fuel prices are low in many developing countries compared with high-income countries. For example, in several large developing countries in East Asia (Indonesia, Malaysia, Thailand), fuel prices were well below those of high-income countries in the region (Japan, Singapore; World Bank 2015d). The fall in oil prices has been such that, even after subsidy cuts, local fuel prices have fallen further. This could be offset by raising energy taxation, as has been done in India on petroleum and diesel fuels in 2015.

Current low commodity prices are also a reminder to commodity-exporting countries of the importance of diversification. Many commodity exporters' economies are highly concentrated in one, or a few, products. Past episodes suggest that the pace of diversification often increases when resource revenues begin to decline. Examples of a successful diversification policy include Mexico and Malaysia. Diversification efforts could include the following elements:

- *Building institutions to reduce economic volatility.* Resource-rich economies face the challenge of managing volatile resource revenues. Fiscal rules or well-managed stabilization funds can help smooth revenues and stabilize government spending (Gill et al. 2014).
- *Changing incentives away from non-tradables (including from employment in the public sector).* Resource-rich economies tend to have a significant share of government employment, and a sizeable non-tradables sector, which benefits from government spending and abundantly available

<sup>12</sup>In Mexico, cash transfers are provided in parallel with subsidies accruing to lower-consumption households. *Prospera*, Mexico's main anti-poverty government cash-transfer program, has been quite successful in targeting the poor, in contrast to electricity subsidies.

<sup>13</sup>On the request of G20 leaders, the World Bank released a report in September 2014 providing a roadmap for transitional policies to assist the poor while phasing out fossil fuel subsidies (World Bank 2014c).



### BOX 1.3 Recent Developments in Emerging and Developing Country Labor Markets

*The Great Recession had a relatively mild impact on the labor markets of developing countries. Since 2010 unemployment rates have generally been below pre-global financial crisis levels, and declining. This is in stark contrast to the steep rise, and sluggish decline, of unemployment rates in high-income economies. The resilience of developing-country labor markets reflects, in large part, stronger output growth during and after the crisis. As growth in developing economies slows from post-crisis peaks, labor markets may weaken. Since job creation plays a critical role in reducing poverty, and promoting shared prosperity, this risk heightens the importance of implementing reforms to support growth, and of removing structural constraints on labor markets.*

The 2007–09 financial crisis had a sizeable impact on global labor markets, with social and human costs: a reduction of lifetime income, an increase in poverty, and the loss of human capital (Gourinchas and Kose 2013). Though global unemployment rates returned to pre-crisis levels by 2014, according to official statistics, labor markets of advanced and developing economies followed very different paths. The unemployment rate in advanced economies increased by nearly three percentage points during 2007–09; in contrast, official statistics show an increase of less than half a percentage point in the jobless rate in developing countries over the same period. In advanced countries, the unemployment rate remains about 1.5 percentage points above pre-crisis levels; in the developing world it is one-percentage point below them.

Formal unemployment statistics cover only part of the story in developing economies, because of problems in measurement related to high levels of informality and underemployment. The latter—low-income employment, under-utilization of skills, and lack of full-time job opportunities—are particularly evident (World Bank 2012). Understanding the evolution of labor market conditions in developing countries is of paramount importance, as labor is the main source of income for the poor. Unemployment or underemployment are often associated with extreme poverty. Employment and wage growth are therefore critical for achieving the World Bank’s twin goals of reducing extreme poverty and promoting shared prosperity (World Bank 2013).

#### How resilient were labor markets in developing countries during the Great Recession?

The global average unemployment rate rose sharply from 2007 to 2010, reflecting steep increases in high-income economies (Figures B1.3.1 and B1.3.2). As one would expect,

employment contracted especially sharply in the countries that experienced the sharpest declines in output.

In contrast, unemployment rates in developing countries, based on official statistics, show a modest one-half percentage point uptick in 2009, and a return to pre-crisis levels by 2011. The largest increases in unemployment rates and declines in employment growth were in the regions with the largest output losses: Europe and Central Asia (ECA); and Latin America and Caribbean (Figures B1.3.3 and B1.3.4). This reflected contractions of demand in the export markets of Western Europe and the United States. Participation rates show a more complex pattern, generally (but not uniformly) declining during the global recession, and rising afterwards (with the exception of East Asia (Figure B1.3.5). In other developing regions, unemployment rates increased more moderately and participation rates remained near pre-crisis levels. China’s relatively strong growth during the peak of the Great Recession helped support developing country exports, particularly in East Asia.

The resilience of developing economy employment compared to high-income economies during the Great Recession can be attributed to three factors:

- **Less severe contractions.** The 2008–09 slowdown in developing countries was not particularly severe, relative to that of the advanced economies, or for that matter, relative to earlier recessions in developing countries,

**Figure B1.3.1 Global unemployment rate**

*Global unemployment has receded towards pre-crisis levels.*



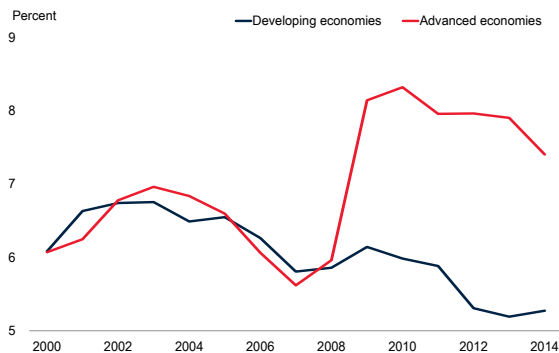
Sources: International Monetary Fund; International Labor Organization.  
Note: Weighted by size of national labor force; 2014 value is projection from IMF’s World Economic Outlook.

The main author of this box is Bryce Quillin.

### BOX 1.3 (continued)

#### Figure B1.3.2 Unemployment rate in developing and advanced economies

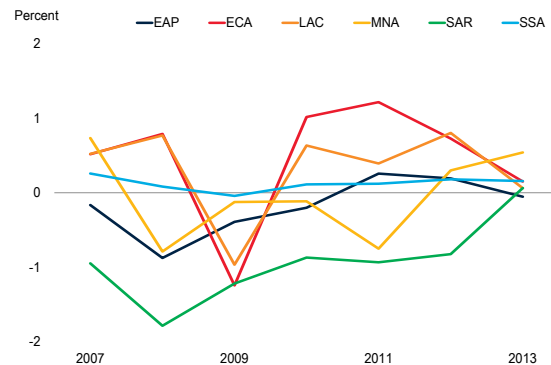
During the crisis, unemployment rose sharply in advanced countries, less so in developing countries.



Sources: International Monetary Fund; International Labor Organization.  
Note: Aggregates weighted by size of national labor force. 2014 values are projections from WEO, IMF.

#### Figure B1.3.4 Change in employment to population ratio

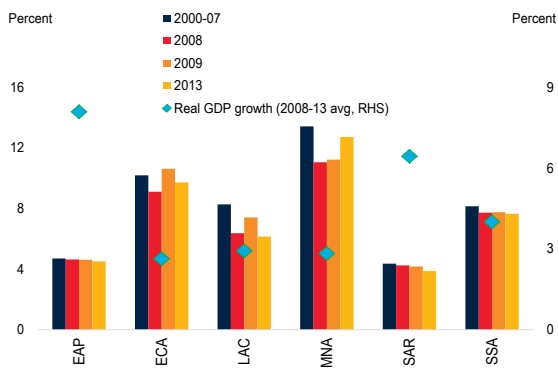
In LAC and ECA, employment rebounded strongly from employment losses in the crisis.



Source: International Labor Organization.

#### Figure B1.3.3 Regional unemployment rate

The increase in unemployment rates during the crisis was most pronounced in developing countries in LAC and ECA.



Source: International Labor Organization.  
Note: EAP stands for East Asia and Pacific, ECA stands for Europe and Central Asia, LAC stands for Latin America and the Caribbean, MNA stands for Middle East and North Africa, SAR stands for South Asia, SSA stands for Sub-Saharan Africa.

and the recovery was somewhat quicker (Figure B1.3.6). As a result, in 2008–09, unemployment rates re-attained pre-recession levels faster than in earlier recessions. The linkage between growth and unemployment is also seen in divergences among developing regions. For example, ECA and LAC experienced the biggest drops in both output and employment growth.

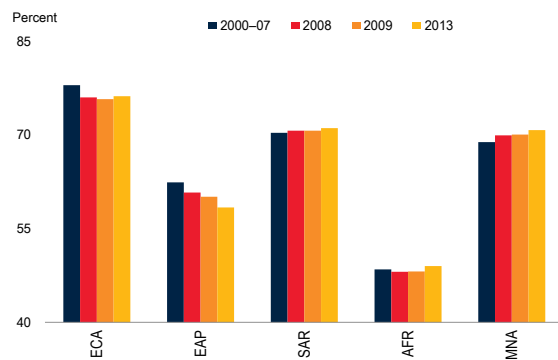
- Less sensitivity of unemployment rates to growth.** Unemployment rates respond less to changes in economic activity in developing countries than in high-income countries. Historical estimates of “Okun’s Law” suggest that a 1 percentage point increase in growth is associated with a smaller decline in unemployment in emerging than advanced economies; the estimated elasticity for frontier markets is about half that for advanced economies (Loungani 2014, Figures B1.3.7 and B1.3.8). However, these estimates vary widely over time, over countries, and over sectors (Cazes et al. 2012; Moosa 2012; Ball, Leigh and Loungani 2013).<sup>1</sup> For example, in Sub-Saharan Africa (SSA), LAC, and India, employment in manufacturing tends to be less responsive to growth than in agriculture, construction, or services (World Bank 2012).
- Informality and measurement uncertainties.** Weaker Okun coefficients may reflect the high levels of informality and labor market segmentation in developing economies (UNCTAD 2012). In the absence of social safety nets, workers may be unable to afford periods of

<sup>1</sup>There are two versions of Okun’s Law. The “gap” version relates that for every 1 percentage point increase in the unemployment rate, a country’s GDP will be about 2 percentage points lower than its potential. The “differences” version (as originated in Okun, 1962) describes the relationship between quarterly changes in unemployment and GDP.

**BOX 1.3 (continued)**

**Figure B1.3.5 Labor force participation rate**

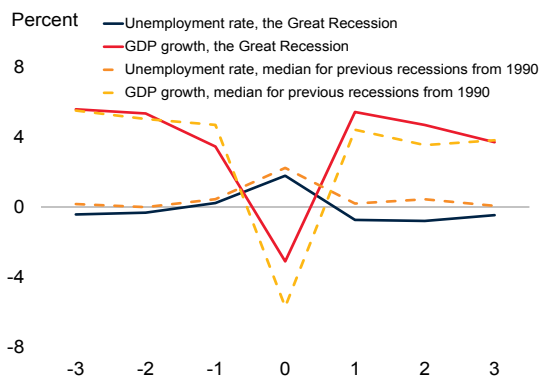
*In the post-crisis rebound, labor force participation rates also rose in LAC and ECA.*



Source: International Labor Organization.  
 Note: Modeled ILO estimate. EAP stands for East Asia and Pacific, ECA stands for Europe and Central Asia, LAC stands for Latin America and the Caribbean, MNA stands for Middle East and North Africa, SAR stands for South Asia, SSA stands for Sub-Saharan Africa. Labor force divided by working age population of ages 15-64.

**Figure B1.3.6 Changes in unemployment rate and GDP growth in Great Recession vs. previous recessions in developing economies**

*During the 2009 recession, the unemployment rate in developing countries rose less than in earlier recessions.*

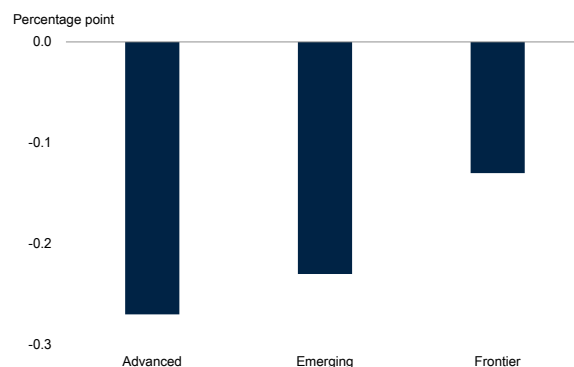


Source: International Labor Organization. World Bank calculations. Definition of recessions obtained from World Bank 2014a.  
 Note: The zero ("0") represents trough and the -3 to 3 values represent years before and after the trough. Sample comprises 11 emerging market economies.

unemployment and there may be a revolving door from formal to informal jobs that cushions the impact of slower economic growth on official unemployment rates. Informal employment can account for 70 percent of total employment in Asia and the Pacific, over 60 percent in Africa and LAC, and over 20 percent in ECA (ILO 2014; Figure

**Figure B1.3.7 Estimates of Okun's Law coefficients for advanced, emerging, and frontier market economies**

*Additional growth is associated with a smaller reduction in the unemployment rate in emerging and frontier markets than in advanced markets.*



Source: Furceri and Loungani (2014).  
 Note: Bar represents the impact of an extra percentage point of GDP growth on the unemployment rate.

B1.3.9). The very nature of informality makes it difficult to measure (note the wide range of the estimates in Figure B1.3.9). In addition, by blurring the distinction between employment and unemployment, it increases the margin for error in the unemployment data. Large-scale underemployment of workers, in low-paid, low-productivity occupations that under-utilize their skills, means that the measured unemployment rate in developing economies cannot be interpreted in the same way as that in advanced economies, either as a cyclical indicator, or as a gauge of economic welfare.

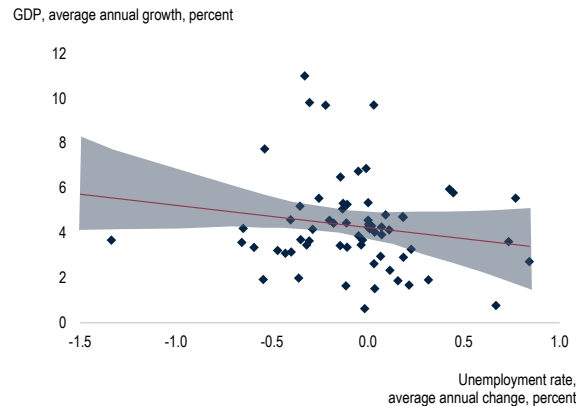
**What are the prospects for developing country labor markets after the Great Recession?**

Moderating growth in several large developing economies since 2010 has not yet had a large labor market impact, but some signs of weakness are emerging. Unemployment rates in all developing regions are around or below the pre-crisis average. Likewise, aggregate rates of employment growth remain solid, although there are exceptions, such as the marked declines in employment growth in ECA from 2011, and the softening in East Asia and Latin America in 2012. The International Labor Organization (ILO) projects that unemployment rates will rise in ECA, East Asia, and South Asia in 2014, with employment growth falling short of the growth of the working age population (ILO 2014). Global real wage

## BOX 1.3 (continued)

**Figure B1.3.8 Real GDP growth and change in unemployment rates in developing economies, 2000–14**

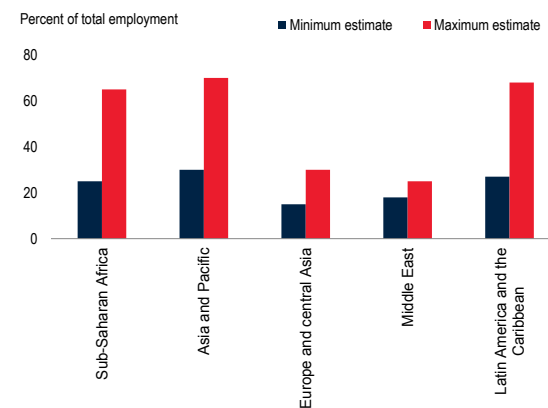
Higher growth was associated with falling unemployment rates.



Source: International Labor Organization; International Monetary Fund. World Bank staff calculations.  
Note: Shaded area reflects 95 percent confidence interval. 2014 values are projections from WEO, IMF.

**Figure B1.3.9 Estimated informal employment shares in selected countries, 2011**

Informal sectors are large in developing countries.



Source: International Labor Organization.  
Note: Calculations based on a sample of 49 countries.

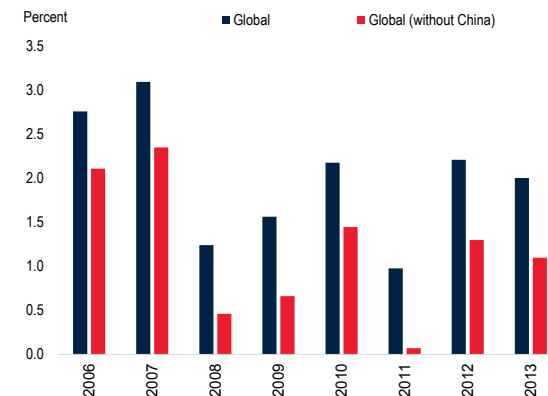
growth declined in 2013 (Figure B1.3.10). Large emerging markets (China, India, South Africa) reflected this trend (Figure B1.3.11), although the wage increase in China, of more than 7 percent, held the global rate of increase close to 2 percent.

Aside from the signs of cyclical softening, labor markets in developing countries face macroeconomic and structural policy challenges that make them vulnerable to a global slowdown.

- **Reduced space for counter-cyclical fiscal policy.** Part of the relative resilience of emerging market economies during the Great Recession was due to the use of stimulative fiscal policy to support domestic demand. Many countries, having used much of the available space, will be unable to respond as strongly in the event of another cyclical slowdown (World Bank 2015c).
- **Structural policy weaknesses.** Structural constraints on the private sector and labor markets create risks for post-Great Recession employment prospects. The private sector is the main engine of job creation: during 1995–2005, the private sector accounted for over 90 percent of the jobs created in Brazil, the Philippines, and Turkey. Small- and medium-sized enterprises (SME) employed over 60 percent of formal sector

**Figure B1.3.10 Global average annual real wage growth**

Since the crisis, real wage growth has declined in developing countries.



Source: International Labor Organization Global Wage Report 2014/15.  
Note: Weighted average of y-o-y growth in average monthly real wages in 130 countries, covering 96% of all employees.

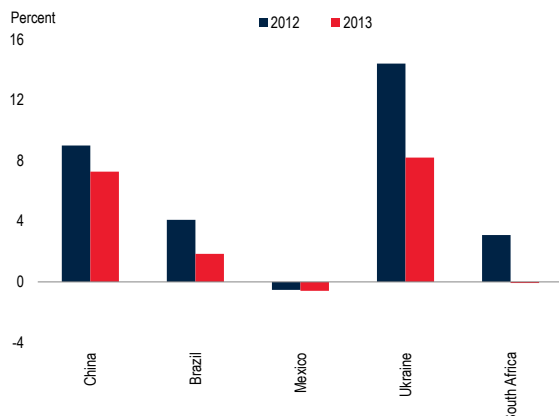
workers in developing countries (IFC 2013, World Bank 2012). Firms, particularly SMEs, report that their growth and hiring is limited by infrastructure issues, access to financing, and competition from the informal sector caused by cumbersome labor regulations and



**BOX 1.3 (continued)**

**Figure B1.3.11 Real wage growth in selected developing economies**

*Real wage growth has been particularly weak in LAC.*



Source: International Labor Organization Global Wage Report 2014/15.

poor enforcement (Figure B1.3.12, IFC 2013). Rigid labor regulations have been correlated with increases in urban poverty, fewer business start-ups, and lower productivity growth (Djankov and Ramalho 2009; Bassanini, Nunziata, and Venn 2014; Scarpetta 2014). The role and size of the state is also important. In MENA, which has the highest levels of unemployment, and the lowest labor force participation rates (particularly among women), the formal private sector employs no more than 20 percent of the labor force, with state employment exceeding 80 percent in some countries (World Bank 2013).

In addition to these policy-related risks to labor markets, demographic change is leading to rapid aging in many developing countries. Over the next 15 years, the growth in the working age population will slow from 2000–15 rates, in some cases sharply, in every developing region. Dependency ratios are already rising in Central and Eastern Europe and much of East Asia as a result of lower fertility and mortality rates (Galor 2012; Soares 2005; Acemoglu and Johnson 2007). Aging has broad-based policy implications, particularly for fiscal policy, and will impact labor markets by lowering labor supply and potentially lowering productivity and entrepreneurship (IMF 2004; World Bank forthcoming (a); World Bank forthcoming (b)). These demographic pressures exacerbate existing risks to labor markets and increase the need to pursue policies that promote formality.

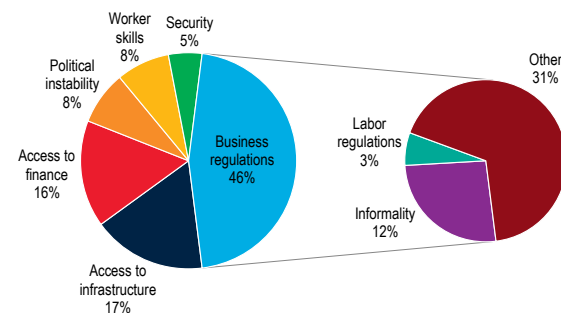
**What policies could help address structural problems?**

The nature of the policy challenges varies with the level of development, institutional strength, and endowments. However, promoting growth and addressing structural rigidities in labor and product markets will be parts of the solution. The reform agenda can be described along four themes (World Bank 2012).

- **Strong macroeconomic fundamentals.** Given the universal importance of sustained economic growth to the creation of permanent work, an overarching priority is a macroeconomic policy mix that supports steady growth.
- **Structural policies encouraging SME development.** In particular, policies should support SME development, given their contribution to employment. SMEs in developing countries are much less successful in growing into larger firms than in advanced economies: a study by IFC found that 35-year-old companies in India were typically born large, and shrunk by one fourth over their lifetimes; in Mexico they doubled in size. Yet in the United States they grew by a factor of 10 (IFC 2013). Reforms to broad-based infrastructure and financial-sector policies may be required to improve SME access to electricity and finance. Obstacles in these two areas pose binding on constraints firms in low-income and lower-middle income country (IFC 2013).
- **Labor market reforms.** A key priority is to eliminate government-created incentives for informal employment. Poorly designed regulation of formal employment often results in excessive red tape on hiring, and

**Figure B1.3.12 Enterprise Survey results on key business constraints, 2013**

*Enterprises consider labor regulations and informality key constraints to business.*



Source: Enterprise Surveys, World Bank, IFC (2013).

**BOX 1.3 (continued)**

high penalties on firing. In turn, these encourage informality, or poor enforcement. Simulations of labor market models suggest that policy changes should be carefully sequenced, as increasing enforcement may reduce informality yet cause higher unemployment and lower welfare. Policies that first reduce costs in the formal sector would help avoid this outcome (Ulyssea 2010).

- **Country specifics.** Relevant country idiosyncrasies include economic institutions, natural resource dependency, and demographics. In some regions, states are embroiled in conflict, or post-conflict, situations that have large economic repercussions (World Bank 2012).
  - For agrarian countries, improving transportation to cities will be a high priority, as will be improving productivity in agriculture.
  - Aging economies, with growing dependency ratios, need to focus on policies that encourage health. Doing so will support labor force participation ratios by promoting longer working lives. There would also be fiscal savings, including on health care. Revised immigration policies may be needed to increase the size of the work force, particularly for non-traded services.
- Countries with growing populations may be at risk of a “youth bulge” that increases competition for jobs, and dampens wage growth. Education programs can assist skills development, while business environment reforms may enhance business entry and market access. Large public sector employment, on the other hand, may crowd out private sector opportunities and lead to an inefficient allocation of human capital (World Bank 2013).
- Resource-rich economies may need to focus on improving human capital and institutions. Excessive hiring by the public sector, or a loss of export competitiveness due to an appreciation of real exchange rates during periods of high commodity prices, may crowd out private sector job creation (World Bank 2014).
- In conflict-affected countries, the availability of jobs that provide life-long skills for ex-combatants, or for youths who may be drawn into violence, is particularly important. Without decent employment opportunities, the risk is high that such people will become permanently disaffected. Productive infrastructure investments can provide such employment, and help build social cohesion.

labor (Callen et al. 2014). This non-tradables sector is typically characterized by low productivity growth relative to the tradables sector, in particular manufacturing (Cherif and Hasanov 2014). Reforms to provide market incentives for a transfer of resources towards the non-resource-based tradables sector may be helpful in some commodity-exporting countries.

- *Encouraging export diversification.* Export diversification is associated with higher growth (Lederman and Maloney 2007). Public policy can support export diversification and sophistication by fostering vertical diversification in oil, gas, and petrochemical sectors (i.e., increased processing of the raw materials), and horizontal diversification beyond these sectors (Cherif and Hasanov 2014).
  - *Building human capital.* Government investment, including in human capital, would be an effective complement to efforts to accelerate productivity growth in the tradables sector (Cherif and Hasanov 2012). In developing countries, social returns to education have been shown to be significant, and potentially higher than returns to physical capital (OECD 2012; Psacharopoulos and Patrinos 2004).
- Measurable effects of reforms, in terms of growth and productivity, can take a long time to materialize. Even in the short-term, however, reforms can have a considerable effect on activity. Policies could be implemented to ease the short-term transition cost, for example by assisting workers to move to new jobs and speeding up the repair of the capital bases of lending institutions. Some of the possible effects on activity are as follows:

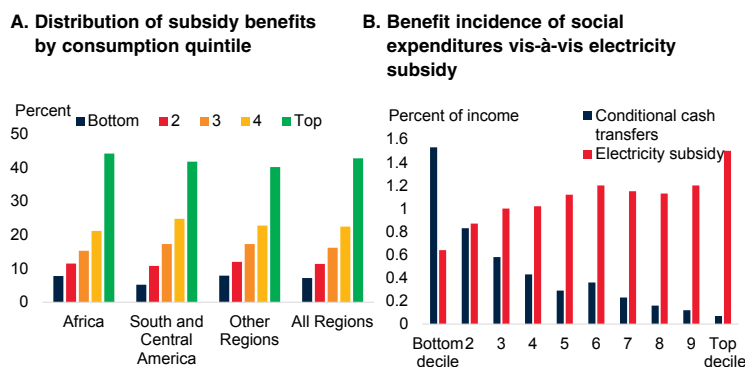
- Reforms that involve capital investment (e.g., to address infrastructure needs) can stimulate domestic demand in the short-term.
- Labor market reforms, especially those that reform social benefits, can increase the labor supply (e.g., older workers), even though in the short-run they may imply lower real incomes (Blanchard and Giavazzi 2001; Krebs and Scheffel, 2013). Even if associated with short-term disruptions, labor market reforms can be critical complements to other reforms. For example, labor market flexibility can amplify growth benefits from deregulation and product market reforms (Aghion et al. 2008).
- Product market reforms (such as increasing competition or removing implicit and explicit subsidies) that result in unwinding excess capacity in inefficient firms (e.g., some state enterprises) can cause unemployment in the short run, as workers are laid off, and as banks' new lending capacity is impaired by the need to write off nonperforming loans.

## References

- Acemoglu, D., and S. Johnson. 2007. "Disease and Development: The Effect of Life Expectancy on Economic Growth." *Journal of Political Economy* 115 (6): 925-985.
- Aghion, P., R. Burgess, S.J. Redding, and F. Zilibotti. 2008. "The Unequal Effects of Liberalization: Evidence from Dismantling the License Raj in India." *American Economic Review* 98 (4): 1397-1412.
- Aksoy, A. M., and A. Isik-Dikmelik. 2008. "Are Low Food Prices Pro-Poor? Net Food Buyers and Sellers in Low-Income Countries." Working Paper No. 4642. World Bank, Washington, DC.
- Alfaro, L., S. Kalemli-Ozcan, and V. Volosovych. 2008. "Why Doesn't Capital Flow from Rich to Poor Countries? An Empirical Investigation." *The Review of Economics and Statistics* 90 (2): 347-368.
- Altunbas, Y., L. Gambacorta, and D. Marqués-Ibáñez. 2010. "Does Monetary Policy Affect Bank Risk-Taking?" ECB Working Paper 1166.
- Arze del Granado, F. J., D. Coady, and R. Gillingham. 2012. "The Unequal Benefits of Fuel Subsidies: A Review of Evidence for Developing Countries." *World Development* 40: 2234-2248.

## FIGURE 1.30 Fuel subsidies

Fuel subsidies typically benefit high-income households more than lower-income ones. In contrast, conditional cash transfers can be better targeted to low-income households.



Sources: Arze del Granado, Coady, and Gillingham (2012); Vagliasindi (2012).

A. Values are share of the total benefit from different fuel price subsidies for households grouped by consumption levels.

B. The conditional cash transfers program (previously Oportunidades, now Prospera) is a Mexican government social assistance (welfare) program founded in 2002. It was designed to target poverty by providing cash payments to families in exchange for regular school attendance, health clinic visits, and nutritional support.

Badel, A., and J. McGillicuddy. 2015. "Oil Prices: Is Supply or Demand behind the Slump?" Federal Reserve Bank of St Louis.

Baffes, J. and X. Etienne. 2014. "Analyzing Food Price Trends in the Context of Engel's Law and the Prebisch-Singer Hypothesis." Paper presented at the International Conference on Food Price Volatility: Causes and Consequences, Rabat, Morocco, February 25-26, 2014.

Baffes, J., M. A. Kose, F. Ohnsorge, and M. Stocker. 2015. "The Great Plunge in Oil Prices: Causes, Consequences and Policy Responses." Policy Research Note No. 1. World Bank, Washington, DC.

Baffes, J. B. Lewin, and P. Varangis. 2005. "Coffee: Market Setting and Policies." In *Global Agricultural Trade and Developing Countries*, ed. M.A. Aksoy and J. Beghin. World Bank, Washington D.C.

Ball, L., D. Leigh, and P. Loungani. 2013. "Okun's Law: Fit at 50." IMF Working Paper. WP/13/10. International Monetary Fund, Washington, DC.

Bank of England. 2014. "Financial Stability Report December 2014." Bank of England. <http://www.bankofengland.co.uk/publications/Documents/fsr/2014/fsrfull1412.pdf>.

Barkbu, B.B., S. P. Berkmen, and H. Schölermann. 2015. "Investment in the Euro Area: Why Has It Been So Weak?" iMFdirect. February 19, 2015.

- Bassanini, A., L. Nunziata, and D. Venn. 2014. "Job Protection and Productivity." *Economic Policy* 24: 349–402.
- Baumeister, C., and L. Kilian. 2015. "Understanding the Decline in the Price of Oil Since June 2014." CFS Working Paper No. 501. Center for Financial Studies, Frankfurt.
- Behar, A., and A. J. Venables. 2010. "Transport Cost and International Trade." University of Oxford Department of Economic Discussion Paper No. 488.
- Bell, D. N. F., and D. G. Blanchflower. 2011. "The Crisis, Policy Reactions and Attitudes to Globalization and Jobs." Discussion Paper Series 5680, Institute for the Study of Labor, Bonn.
- Benkovskis, K., and J. Wörz. 2014. "How Does Taste and Quality Impact on Import Prices?" *Review of World Economics* 150 (4): 665–691.
- Berg, A., C. Papageorgiou, C. Pattillo, M. Schindler, N. Spatafora, and H. Weisfeld. 2011. "Global Shocks and their Impact on Low-Income Countries: Lessons from the Global Financial Crisis." IMF Working Paper 11/27.
- Blanchard, O., and D. Quah. 1989. "The Dynamic Effects of Aggregate Demand and Supply Disturbances." *American Economic Review* 79 (4): 655–673.
- Blanchard, O., and F. Giavazzi. 2001. "Macroeconomic Effects of Regulation and Deregulation in Goods and Labor Markets." NBER Working Paper No. 8120. National Bureau of Economic Research.
- Bloom, D., D. Canning, and J. Sevilla. 2003. "The Demographic Dividend: A New Perspective on the Economic Consequences of Population Change." Rand Corporation.
- Bodenstein, M., L. Guerrieri, and L. Kilian. 2012. "Monetary Policy Responses to Oil Price Fluctuations." *IMF Economic Review* 60 (4): 470–504.
- Boeri, T., P. Garibaldi, and E. R. Moen. 2012. "The Labor Market Consequences of Adverse Financial Shocks." Paper presented at the 13th Jacques Polak Annual Research Conference, International Monetary Fund, November 8–9.
- Brayton, F., T. Laubach, and D. Reifschneider. 2014. "The FRB/US Model: A Tool for Macroeconomic Policy Analysis." Board of Governors of the Federal Reserve System, FEDS Note, April.
- Bruno, V., and H. S. Shin. 2013. "Capital Flows, Cross-border Banking and Global Liquidity." NBER Working Paper No. 19038. National Bureau of Economic Research.
- Buiter, W. and N. Panigirtzoglou, 2003, "Overcoming the Zero Bound on Nominal Interest Rates with Negative Interest on Currency: Gesell's Solution," *The Economic Journal* 113: 723–746.
- Bullard, J. 2014. "How Far Is the FOMC From Its Goals?" Presentation at the Tennessee Bankers Association Annual Meeting, June 9 2014. <https://www.stlouisfed.org/-/media/Files/PDFs/Bullard/remarks/BullardTNBankersAssociationPalmBeach9June2014Final.pdf>.
- Bussière, M. S., and M. Fratzscher. 2006. "Towards a New Early Warning System of Financial Crises." *Journal of International Money and Finance* 25 (6): 953–973.
- Bussière, M., S. Delle Chiaie, and T. A. Peltonen. 2014. "Exchange Rate Pass-Through in the Global Economy: The Role of Emerging Market Economies." *IMF Economic Review* 62 (1): 146–178.
- Ca'Zorzi, M., E. Hahn, and M. Sanchez. 2007. "Exchange Rate Pass-Through in Emerging Markets." ECB Working Paper No. 739. European Central Bank.
- Caballero, R. J., T. Hoshi, and A. K. Kashyap. 2006. "Zombie Lending and Depressed Restructuring in Japan." NBER Working Paper No. 12129, National Bureau of Economic Research, Cambridge, MA.
- Cai, F., and D. Wang. 2005. "China's Demographic Transition: Implications for Growth." In *The China Boom and its Discontents*, edited by R. Garnaut and L. Song, 34–52. Canberra: Asia Pacific Press.
- Callen, T., R. Cherif, F. Hasanov, A. Hegazy, and P. Khandelwal. 2014. "Economic Diversification in the GCC: Past, Present, and Future." Staff Discussion Note No. 14/12 (2014). International Monetary Fund, Washington, DC.
- Campa, J. M., and L. S. Goldberg. 2005. "Exchange Rate Pass-Through into Import Prices." *Review of Economics and Statistics* 87 (4): 679–690.
- Canuto, O., C. Fleischhaker, and P. Schellekens. 2015. "The Curious Case of Brazil's Closedness to Trade." World Bank Policy Research Working Paper No. 7228.



- Catão, L., and R. Chang. 2013. "Monetary Rules for Commodity Traders." *IMF Economic Review* 61 (1): 52-91.
- Cazes, S., S. Verick, and F. Al-Hussani. 2012. "Diverging Trends in Unemployment in the United States and Europe: Evidence from Okun's Law and the Global Financial Crisis." Employment Working Papers. International Labour Organization.
- Cherif, R., and F. Hasanov. 2012. "Oil Exporters' Dilemma: How Much to Save and How Much to Invest." *World Development* 52 (2013): 120-131.
- \_\_\_\_\_. 2014. "Soaring of the Gulf Falcons: Diversification in the GCC Oil Exporters in Seven Propositions." Working Paper No. 14/177 (2014). International Monetary Fund, Washington, DC.
- Clements, B., D. Coady, S. Fabrizio, S. Gupta, and B. Shang. 2014. "Energy Subsidies: How Large Are They and How Can They Be Reformed?" *Economics of Energy & Environmental Policy* 3 (1).
- Coady, D., M. El-Said, R. Gillingham, K. Kpodar, P. Medas, and D. Newhouse. 2006. "The Magnitude and Distribution of Fuel Subsidies: Evidence from Bolivia, Ghana, Jordan, Mali, and Sri Lanka." IMF Working Paper Series 06/247. International Monetary Fund, Washington, DC.
- Cœuré, B. 2015. "Embarking on Public Sector Asset Purchases." Speech at the Second International Conference on Sovereign Bond Markets in Frankfurt, March 10.
- Congressional Budget Office. 2015. "The Budget and Economic Outlook: 2015 to 2025, January 2015." United States Congress Congressional Budget Office. <https://www.cbo.gov/sites/default/files/cbofiles/attachments/49892-Outlook2015.pdf>.
- Dailami, M., and J. Adams-Kane. 2012. "What Does the Future Hold for the International Banking System?" World Bank, Washington, DC.
- Dahlhaus, T., and G. Vasishta. 2014. "The Impact of U.S. Monetary Policy Normalization on Capital Flows to Emerging-Market Economies." Bank of Canada Working Paper No. 2014-53.
- De Gregorio, J., O. Lenderretche, and C. Neilson. 2007. "Another Pass-Through Bites the Dust? Oil Prices and Inflation." Central Bank of Chile Working Paper No. 417.
- De Nicolò, G., G. Dell'Arìccia, L. Laeven, and F. Valencia. 2010. "Monetary Policy and Bank Risk Taking." Staff Position Note. International Monetary Fund, Washington, DC.
- Dell'Arìccia, G., L. Laeven, and G. Suarez. 2013. "Bank Leverage and Monetary Policy's Risk-Taking." IMF Working Paper 13/143. International Monetary Fund, Washington, DC.
- Di Maggio, M. and M. Kacperczyk. 2015, "The Unintended Consequences of the Zero Lower Bound Policy," Working Paper, Columbia Business School.
- Djankov, S., and R. Ramalho. 2009. "Employment Laws in Developing Countries." *Journal of Comparative Economics* 37 (1): 3-13.
- Draghi, Mario. 2015. ECB and its Watchers XVI Conference. Frankfurt am Main, 11 March 2015.
- Economist Intelligence Unit. 2015. "International Jobs Report: A Timely Assessment of International Labor Market Conditions." January.
- Eichengreen, B., and P. Gupta. 2013. "The Real Exchange Rate and Export Growth: are Services Different?" World Bank Policy Research Working Paper 6629.
- European Central Bank. 2015. "The Governing Council's Expanded Asset Purchase Programme," Box 1 in Economic Bulletin Issue 1 / 2015.
- European Commission. 2015. *Winter Economic Forecast: Outlook Improved but Risks Remain*. Brussels, February 2015.
- Fadejeva, L., M. Feldkircher, and T. Reininger. 2014. "Spillovers from Euro Area and U.S. Credit Demand Shocks: Comparing Emerging Europe on the Basis of a GVAR Model." Oesterreichische Nationalbank Working Paper 198, Vienna, Austria.
- Farber, H. S. 2011. "Job Loss in the Great Recession: Historical Perspective from the Displaced Workers Survey, 1984-2010." Discussion Paper Series 5696, Institute for the Study of Labor, Bonn.
- Fattouh, B. 2007. "OPEC Pricing Power: The Need for a New Perspective." Oxford Institute for Energy Studies WPM 31. Oxford, U.K.
- Ferderer, J. P. 1997. "Oil Price Volatility and the Macroeconomy." *Journal of Macroeconomics* 18 (1): 1-26.

- Fisher, J. D. M. 2006. "The Dynamic Effects of Neutral and Investment Specific Technology Shocks." *Journal of Political Economy* 114 (3): 413-451.
- Forbes, K. J., and F. E. Warnock. 2012. "Capital Flow Waves: Surges, Stops, Flight, and Retrenchment." *Journal of International Economics* 88 (2): 235-251.
- Frankel, J. A. 2010. "The Natural Resource Curse: a Survey." NBER Working Paper No. 15836. National Bureau of Economic Research.
- Fratzscher, M. 2011. "Capital Flows, Push Versus Pull Factors and the Global Financial Crisis." ECB Working Paper No. 1364. European Central Bank.
- Fratzscher, M., M. Lo Duca, and R. Straub. 2013. "On the International Spillovers of U.S. Quantitative Easing." DIW Berlin Discussion Paper No. 1304. German Institute for Economic Research.
- Furceri, D., and P. Loungani. 2014. "Growth: An Essential Part of a Cure for Unemployment." IMF-direct website post. November 19.
- G20. 2014a. "Comprehensive Growth Strategy—Japan." <http://www.mofa.go.jp/files/000059855.pdf>.
- 2014b. "Growth Strategies: G20 Emerging Market Economies. World Bank Staff Assessment." G20 November 7, 2014.
- Gagnon, J. E., and J. Ihrig. 2004. "Monetary Policy and Exchange Rate Pass Through." *International Journal of Finance and Economics* 9 (4): 315-338.
- Galor, O. 2012. "The Demographic Transition: Causes and Consequences." *Cliometrica* 6:1-28.
- Garbade, K and McAndrews, J. 2012. "If Interest Rates Go Negative... Or, Be Careful What You Wish For." *Liberty Street Economics* (blog). New York Federal Reserve.
- \_\_\_\_\_. 2015. "Interest-Bearing Securities when Interest Rates are Below Zero." *Liberty Street Economics* (blog). New York Federal Reserve.
- Gasparini, L., and L. Tornarolli. 2007. "Labour Informality in Latin America and the Caribbean: Patterns and Trends from Household Survey Microdata." CEDLAS Working Paper, 47.
- Gelos, R. G., R. Sahay, and G. Sandleris. 2011. "Sovereign Borrowing by Developing Countries: What Determines Market Access?" *Journal of International Economics* 83 (2): 243-254.
- Genay, H. and R. Podjasek. 2014. "What is the Impact of a Low Interest Rate Environment on Bank Profitability?" Chicago Fed Letter 324 (July), Federal Reserve Bank of Chicago.
- Georgiadis, G., and J. Gräß. 2015. "Global Financial Market Impact of the Announcement of the ECB's Extended Asset Purchase Programme." Federal Reserve Bank of Dallas Working Paper No. 232.
- Gilbert, C. L. 1996. "International Commodity Agreements: An Obituary." *World Development* 24: 1-19.
- Gill, I. S., I. Izvorski, W. Van Eeghen, and D. De Rosa. 2014. *Diversified Development: Making the Most of Natural Resources in Eurasia*. Washington, DC: World Bank.
- Golan, A., G. G. Judge, and D. Miller. *Maximum Entropy Econometrics: Robust Estimation with Limited Data*. New York: Wiley, 1996.
- Gordon, R. J. 2010. "Okun's Law and Productivity Innovations." *American Economic Review* 100 (2): 11-15.
- Gourinchas, P.-O., and M. A. Kose. 2013. "Introduction: Labor Markets Through the Lens of the Great Recession." *IMF Economic Review* 61: 405-409.
- Guo, H. and K. L. Kliesen. 2005. "Oil Price Volatility and US Macroeconomic Activity." Federal Reserve Bank of St. Louis Review 87. <http://research.stlouisfed.org/publications/review/05/11/Kliesen-Guo.pdf>.
- Hamilton, J.D., E. S. Harris, J. Hartzius, and K. D. West. 2015. "The Equilibrium Real Funds Rate: Past, Present and Future." Mimeo. [http://econweb.ucsd.edu/~jhamilto/USMPF\\_2015.pdf](http://econweb.ucsd.edu/~jhamilto/USMPF_2015.pdf).
- Hamilton, J. D. 2014. "Oil Prices as an Indicator of Global Economic Conditions." Econbrowser. December 14.
- Hannoun, H. 2015. "Ultra-Low or Negative Interest Rates: What They Mean for Financial Stability and Growth." Speech at the Eurofi High-Level Seminar, Riga, April 22.
- HM Treasury. 2015. "Budget 2015, March 2015." HC 1093. <http://www.gov.uk/government/publications>.
- Hsieh, C.-T., E. Hurst, C. I. Jones, and P. J. Klenow. 2013. "The Allocation of Talent and U.S. Economic Growth." NBER Working Paper No. 18693. National Bureau of Economic Research.

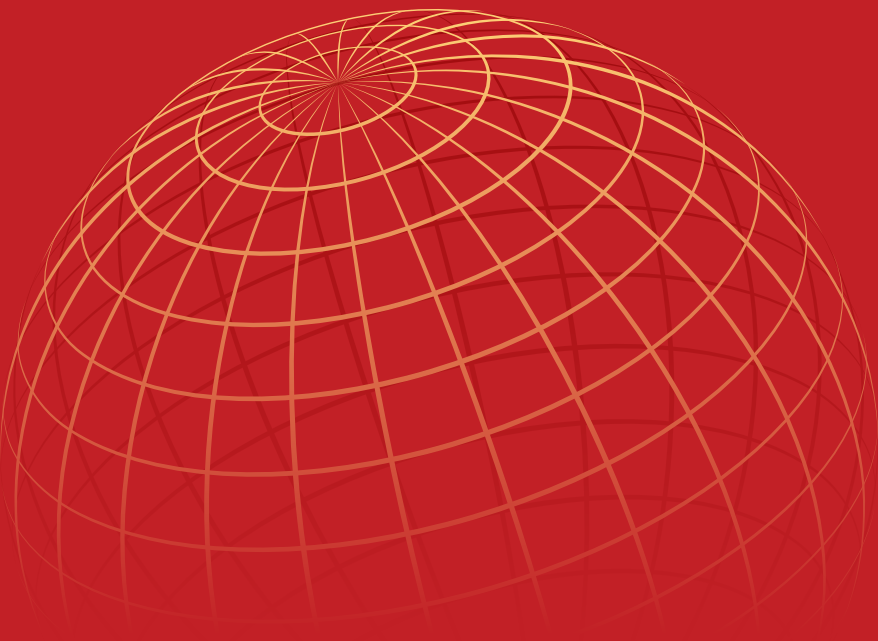


- Hull, J., M. Predescu, and A. White. 2004. "The Relationship Between Credit Default Swap Spreads, Bond Yields, and Credit Rating Announcements." *Journal of Banking and Finance* 28 (1): 2789-2811.
- Huttel, Pia. 2014. "Negative Deposit Rates: The Danish Experience." *Bruegel* (blog). Brussels.
- IEA. 2014. Fossil Fuel Database, Paris. International Energy Agency.
- \_\_\_\_\_. 2015. Oil Market Report March 2015. International Energy Agency.
- IEG. 2008. Climate Change and the World Bank Group. Phase 1: An Evaluation of World Bank Win-Win Energy Policy Reforms. Independent Evaluation Group. Washington, DC: World Bank.
- IFC. 2013. "IFC Jobs Study: Assessing Private Sector Contributions to Job Creation and Poverty Reduction." International Finance Corporation.
- IIF. 2015. Heat Map of EM Vulnerabilities. Institute for International Finance. <https://www.iif.com/publication/heat-map-em-vulnerabilities>.
- Ilgmann, C., and M. Menner, 2011, "Negative Nominal Rates: History and Current Proposals," *International Economics and Economic Policy* 8: 383-405.
- IMF. 2004. *World Economic Outlook: The Global Demographic Transition*. Washington, DC: International Monetary Fund.
- \_\_\_\_\_. 2010. *World Economic Outlook Rebalancing Growth*. April 2010. Washington, DC: International Monetary Fund.
- \_\_\_\_\_. 2013a. "Energy Subsidy Reform: Lessons and Implications." International Monetary Fund.
- \_\_\_\_\_. 2013b. "2013 Spillover Report—Analytical Underpinnings and Other Background." Policy Paper, International Monetary Fund, Washington, DC.
- \_\_\_\_\_. 2013c. Regional Economic Outlook—Middle East and Central Asia October 2013. Washington, DC: International Monetary Fund.
- \_\_\_\_\_. 2014a. "Multilateral Issues Report, 2014 Spillover Report." Policy Paper, International Monetary Fund, Washington, DC.
- \_\_\_\_\_. 2014b. "United Kingdom—Article IV Consultation 2014 Staff Report." IMF Country Report 14/233. International Monetary Fund, Washington, DC.
- \_\_\_\_\_. 2015a. *Global Financial Stability Report, April 2015*. Washington, DC: International Monetary Fund.
- \_\_\_\_\_. 2015b. *World Economic Outlook: Uneven Growth. Short- and Long-Term Factors*. Washington, DC: International Monetary Fund.
- \_\_\_\_\_. 2015c. International Jobs Report. January. Washington, DC: International Monetary Fund.
- International Labour Office. 2014. "Global Unemployment Trends 2014: Risk of a Jobless Recovery?" International Labour Organization.
- Judge, G. G., and R. C. Mittelhammer. An Information Theoretic Approach to Econometrics. Cambridge University Press, 2011.
- Justing, J., J. Parlevliet, and T. Xenogiani. 2007. "Informal Employment Re-loaded." OECD Development Centre Working Paper, 266. Organization for Economic Cooperation and Development.
- Kannan, P., and S. Elekdag. 2009. "Incorporating Market Information into the Construction of the Fan Chart." IMF Working Paper 09/178. International Monetary Fund, Washington, DC.
- Keister, T. 2011. "Why Is There A Lower Bound on Interest Rates," *Liberty Street Economics* (blog). New York Federal Reserve.
- Komives, K., V. Foster, J. Halpern, Q. Wodon, and R. Abdullah. 2007. "Utility Subsidies as Social Transfers: An Empirical Evaluation of Targeting Performance." *Development Policy Review* 25 (6): 659-679.
- Koo, R. C. 2011. "The World in Balance Sheet Recession: Causes, Cure, and Politics." *Real-World Economic Review* 58.
- Koopman, R., Z. Wang, and S.-J. Wei. 2014. "Tracing Value-Added and Double Counting in Gross Exports." *American Economic Review* 104 (2): 459-94.
- Krebs, T., and M. Scheffel. 2013. "Macroeconomic Evaluation of Labor Market Reform in Germany." *IMF Economic Review* 61 (4): 664-701.
- Laforte, J.P. and J. Roberts. 2014. "November 2014 update of the FRB/US model." Board of Governors of the Federal Reserve System, FEDS Note, November 21.
- Lederman, D., and W. Maloney. 2007. "Trade Structure and Growth." In *Natural Resources: Neither Curse nor Destiny*, edited by D. Lederman and W. Maloney. 2007. World Bank.

- Loungani, P. 2014. "More Growth: A Simple Cure for Unemployment?" Presentation at Oberlin College. November 3.
- Maloney, W. 2004. "Informality Revisited." *World Development* 32 (7): 1159–78.
- Mankiw, G. 2009. "It May be Time for the Fed to Go Negative," *New York Times* (April 19).
- McAndrews, J. 2015. "Negative Nominal Central Bank Policy Rates: Where Is the Lower Bound?" Speech at the University of Wisconsin in Madison, May 8.
- McCauley, R.N., P. McGuire, and V. Sushko. 2015. "Global Dollar Credit: Links to U.S. Monetary Policy and Leverage." BIS Working Paper No. 483.
- McKinsey Global Institute. 2011. "An Economy That Works: Job Creation and America's Future." June 11 report.
- Meyer, B., and M. Tasci. 2012. "An Unstable Okun's Law, Not the Best Rule of Thumb." Economic Commentary, June 7.
- Mihaljek, D., and M. Klau. 2008. "Exchange Rate Pass-Through in Emerging Market Economies: What Has Changed and Why?" BIS Papers 35: 103–130.
- Moosa, I. A. 2012. "A Cross-Country Comparison of Okun's Coefficient." *Journal of Comparative Economics* 24 (3): 335–56.
- Norden, L., and M. Weber. 2004. "Informational Efficiency of Credit Default Swap and Stock Markets: The Impact of Credit Rating Announcements." *Journal of Banking and Finance* 28 (11): 2813–2843.
- Okun, A. M. 1962. "Potential GNP: Its Measurement and Significance." Reprinted as Cowles Foundation Paper 190.
- OECD. 2010. "OECD Employment Outlook 2010: Moving Beyond the Jobs Crisis." Organisation for Economic Co-operation and Development, Paris.
- \_\_\_\_\_. 2012. "Education Indicators in Focus June 2012/06." Organisation for Economic Co-operation and Development, Paris.
- \_\_\_\_\_. 2014. *OECD Economic Outlook, November 2014*. Paris: Organisation for Economic Co-operation and Development.
- \_\_\_\_\_. 2015a. *Going for Growth 2015*. Paris: Organisation for Economic Co-operation and Development.
- \_\_\_\_\_. 2015b. "Economic Survey 2015 China." Organisation for Economic Co-operation and Development, Paris.
- Office for Budget Responsibility. 2014. Economic and Fiscal Outlook December 2014. <http://www.gov.uk/government/publications>.
- OPEC (Organization of the Petroleum Exporting Countries). 2015. "Brief History." <http://www.opec.org>.
- Psacharopoulos, G., and H. A. Patrinos. 2004. "Returns to Investment in Education: a Further Update." *Education Economics* 12(2): 111–134.
- Qureshi, Z., J. L. Diaz-Sanchez, and A. Varoudakis (2015). "The Post-Crisis Growth Slowdown in Emerging Economies and the Role of Structural Reforms." *Global Journal of Emerging Market Economies*, forthcoming.
- Rai, V., and L. Suchanek. 2014. "The Effect of the Federal Reserve's Tapering Announcements on Emerging Markets." Working Paper No. 14-50.
- Reinhart, C., and K. Rogoff. 2008. "Is the 2007 U.S. Sub-Prime Crisis So Different? An International Historical Comparison," NBER Working Paper No. 13761. National Bureau of Economic Research.
- Rogoff, K. 2014. "Costs and Benefits to Phasing out Paper Currency," NBER Working Paper 20126. National Bureau of Economic Research.
- Sanchez, M. 2013. "The Impact of Monetary Policies of Advanced Countries on Emerging Markets." Remarks at the 55th Annual Meeting of the National Association of Business Economics, San Francisco, September 9, 2013. BIS Central Bankers' speeches.
- Soares, R. R.. 2005. "Mortality Reductions, Educational Attainment, and Fertility Choice." *American Economic Review* 95 (3): 580–601.
- Spatafora, N., and I. Tytell. 2009. "Commodity Terms of Trade: The History of Booms and Busts." IMF Working Papers No. 09/205.
- Scarpetta, S. 2014. Employment Protection. IZA World of Labor. 12.
- Summers, L. H. 2014, "U.S. Economic Prospects: Secular Stagnation, Hysteresis, and the Zero Lower Bound," *Business Economics* 49 (2).

- Svensson, L. E. O. 2015. "Negative Interest Rates: Helpful or Harmful?" Goldman Sachs Global Macro Research Top of Mind, No. 32, February.
- Swerling, B. C. 1968. "Commodity Agreements." International Encyclopedia of Social Sciences.
- Taylor, J. 2000. "Low Inflation, Pass-Through, and the Pricing Power of Firms." *European Economic Review* 44: 1389-1408.
- Ulyssea, G. 2010. "Regulation of Entry, Labor Market Institutions and the Informal Sector." *Journal of Development Economics* 91 (1): 87-99.
- UNCTAD. 2010. "Oil Prices and Maritime Freight Rates: An Empirical Investigation." Technical Report by the UNCTAD Secretariat. UNCTAD.
- \_\_\_\_\_. 2012. "Development and Globalization: Facts and Figures 2012." United Nations Conference on Trade and Development, Geneva.
- Vagliasindi, M. 2012. Implementing Energy Subsidy Reforms: An Overview of the Key Issues. Policy Research Working Paper 6122, World Bank, Washington, DC.
- World Bank. 2012. *World Development Report: Jobs*. Washington, DC: World Bank.
- \_\_\_\_\_. 2013. *Jobs for Shared Prosperity: Time for Action in the Middle East and North Africa*. Washington, DC: World Bank.
- \_\_\_\_\_. 2014a. *Global Monitoring Report 2014*. Washington, DC: World Bank.
- \_\_\_\_\_. 2014b. *Global Economic Prospects: Coping with Policy Normalization in High-Income Countries* (January 2014). Washington, DC: World Bank.
- \_\_\_\_\_. 2014c. Contribution to G20 Finance Ministers and Central Bank Governors, September 2014, "Transitional Policies to Assist the Poor While Phasing Out Inefficient Fossil Fuel Subsidies That Encourage Wasteful Consumption," World Bank.
- \_\_\_\_\_. 2014d. *Diversified Development: Making the Most of Natural Resources in Eurasia*. Washington, DC: World Bank.
- \_\_\_\_\_. 2015a. *Global Economic Prospects: Having Fiscal Space and Using It*. January 2015. Washington, DC: World Bank.
- \_\_\_\_\_. 2015b. "Commodity Markets Outlook. January 2015." World Bank, Washington, DC.
- \_\_\_\_\_. 2015c. "Migration and Development Brief April 2015." World Bank, Washington, DC.
- \_\_\_\_\_. 2015d. "East Asia Update April 2015." World Bank, Washington, DC.
- \_\_\_\_\_. 2015e. *Global Monitoring Report 2014/2015: Ending Poverty and Sharing Prosperity*. Washington, DC: World Bank.
- World Bank, forthcoming (a). "Golden Aging: Prospects for Healthy, Active, and Prosperous Aging in Europe and Central Asia."
- World Bank, forthcoming (b). "Aging in East Asia and Pacific: Capitalizing on the Demographic Transition."
- World Bank and Development Research Center of the State Council, the People's Republic of China. 2014. *Urban China: Toward Efficient, Inclusive, and Sustainable Urbanization*. World Bank, Washington, DC.





SPECIAL FEATURE 1

HOPING FOR THE BEST,  
PREPARING FOR THE WORST:

Risks around U.S. Rate Liftoff  
and Policy Options





*“We face a risk that longer-term interest rates will rise sharply at some point.”*  
(Ben S. Bernanke, March 1, 2013)<sup>1</sup>

*“Long-term interest rates are at very low levels, and that would appear to embody low term premiums, which can move, and can move very rapidly...”*  
(Janet Yellen, May 6, 2015)<sup>2</sup>

*The U.S. Federal Reserve is expected to begin to gradually raise policy interest rates in the near term. Given that it has been anticipated for some time and will take place against the backdrop of an ongoing U.S. recovery and highly accommodative monetary policy by other major central banks, the launch of a series of U.S. rate increases (“liftoff”) is likely to proceed smoothly. The risk remains, however, that the liftoff or subsequent rate increases could lead to abrupt changes in market expectations regarding monetary conditions that could, in turn, prompt a spike in U.S. long-term interest rates, volatility in global financial markets, and a sharp increase in borrowing cost for emerging markets—similar to the way initial discussions of U.S. monetary policy normalization triggered the “taper tantrum” of May–June 2013. If, in response to the liftoff, U.S. long-term bond yields were to jump 100 basis points (as they did during the taper tantrum), capital inflows to emerging markets could decline by 0.8–1.8 percentage points of GDP. The change in external conditions driven by the liftoff or subsequent rate increases could potentially combine with domestic factors to spark a sudden stop in capital inflows in some emerging markets, especially those where vulnerabilities have increased, where there has been uncertainty about policy direction, or where growth prospects have deteriorated significantly. In anticipation of such a risk, emerging markets should prioritize monetary, financial, and fiscal policies that reduce vulnerabilities and strengthen credibility, and structural reform agendas that improve growth prospects.*

## Introduction

The exceptionally accommodative monetary policy stance of major central banks since the global financial crisis has helped support global liquidity, bolster asset valuations, and reduce risk premia. It has been instrumental in lowering long-term interest rates in the United States and other advanced economies, and has contributed to the increase in capital inflows to emerging market countries as investors search for higher yields. As a result, borrowing conditions in emerging markets have remained particularly favorable.

As the U.S. economy improves, the U.S. Federal Reserve (Fed) is expected to begin to gradually raise policy interest rates in the near term, an event widely referred to as “liftoff.”<sup>3</sup> The liftoff and the subse-

quent tightening cycle are expected to proceed smoothly, leading to only modest downward pressures on capital inflows to emerging market countries (Fischer 2015). However, the “taper tantrum” episode of May–June 2013 is a reminder that even an event long anticipated by markets can surprise in its specifics and generate significant financial market volatility and shifts in capital flows.

The potential impact on capital flows to emerging and developing countries depends on both “push” factors (global economic and financial conditions) and “pull” factors (country-specific prospects, vulnerabilities, and policies).<sup>4</sup>

- *Push factors.* As growth prospects improve in advanced countries relative to emerging markets, investment returns are likely to rise and advanced country monetary policies will become

The main authors of this Special Feature are Carlos Arteta, Ayhan Kose, Franziska Ohnsorge, and Marc Stocker, with inputs from Derek Chen, Raju Huidrom, Ergys Islamaj, Eung Ju Kim, and Tianli Zhao. Research assistance was provided by Trang Nguyen and Jiayi Zhang.

<sup>1</sup>Bernanke (2013b).

<sup>2</sup>Yellen (2015b).

<sup>3</sup>In a recent speech, Federal Reserve Chair Janet Yellen (2015c) articulated her position on the timing of the rate hike: “If the economy continues to improve as I expect, I think it will be appropriate at some

point this year to take the initial step to raise the federal funds rate target and begin the process of normalizing monetary policy. To support taking this step, however, I will need to see continued improvement in labor market conditions, and I will need to be reasonably confident that inflation will move back to 2 percent over the medium term.”

<sup>4</sup>Several recent studies have examined the links between capital flows to emerging and developing countries and “pull” and “push” factors, including U.S. monetary policy and global risk aversion (Koepke 2015a).

gradually less accommodative. Although positive growth spillovers from advanced countries would support activity in emerging markets, higher interest rates would likely shift the relative return differential on financial assets in favor of advanced countries.

*Pull factors.* While emerging markets as a group continue to grow faster than advanced economies, prospects have softened and several emerging market countries face significant vulnerabilities. In some of them, uncertainty about policy direction is elevated and weighing on investor sentiment. These factors increase the likelihood of a sudden market reappraisal of the inherent riskiness of emerging market financial assets.

This Special Feature analyzes the changes in the push and pull factors since the taper tantrum, risks of disruptions around the liftoff, and potential implications for emerging markets and possible policy options. Specifically, it addresses the following questions:

- How have growth prospects and policies in advanced countries changed since the taper tantrum?
- What are the major risks around the liftoff?
- What are possible implications of the liftoff for emerging markets?
- What are the major lessons for emerging markets from the taper tantrum?
- How have growth prospects and vulnerabilities for emerging markets changed since the taper tantrum?
- What policy options are available to prepare for risks around the liftoff?

## How Have Growth Prospects and Policies in Advanced Countries Changed since the Taper Tantrum?

Advanced country growth, monetary policy, and broader financial conditions are key global push factors driving capital flows to emerging markets. The economic and policy context in advanced countries has evolved notably since the taper tantrum in May-June 2013 (Figure SF1.1).

- *Lower global interest rates.* Despite a recent pickup, interest rates in major economies are still exceptionally low, and in some cases negative (Box 1.1). The low rates are accompanied by prospects of a significant expansion of balance sheets by the European Central Bank (ECB) and the Bank of Japan. These monetary stimulus measures will continue to shore up global liquidity and help keep interest rates low around the world.
- *Improved activity in advanced economies, including the United States.* Since 2013, growth in advanced countries has picked up markedly, and is projected to reach 2 percent in 2015. In the United States, in particular, labor markets have improved significantly since the taper tantrum (Chapter 1), suggesting that fulfillment of the Fed's "full employment" mandate does not stand in the way of a nearing liftoff (Yellen 2015c).

Going forward, a rise in U.S. long-term yields could reflect either continued improvements in the U.S. economy or highly anticipated U.S. monetary policy changes, or both. Continued improvements in U.S. activity (a favorable "real shock"), especially if surprising strongly and repeatedly on the upside, could bolster equity valuations and would reduce the need for the current highly accommodative monetary policy stance. In tandem with rising returns on equity, bond yields could rise on market expectations of nearing monetary tightening.

Alternatively, financial markets could be surprised by even a modestly less accommodative stance of monetary policy: it could appear as an accelerated tightening to investors if their views about the U.S. economy differ from the Fed's (an adverse "monetary shock"). Similarly, if disappointing economic data were to reveal supply-side challenges to potential growth, it could lead to a faster-than-anticipated increase in (actual or expected) inflation. This could in turn warrant faster-than-expected monetary policy tightening.<sup>5</sup>

A structural vector autoregression (VAR) model is employed to disentangle the contribution of such real

<sup>5</sup>There remains considerable uncertainty on supply-side constraints affecting the U.S. economy, including the underlying pace of productivity growth (Gordon 2014; Hall 2014; Fernald and Wang 2015) and labor participation (Aaronson et al. 2014; Council of Economic Advisers 2014), as both have remained unusually low in the post-crisis period. Signs of emerging supply-side constraints could raise inflation expectations, leading market participants to anticipate a faster normalization of policy rates in the short term.

and monetary shocks to movements in the long-term U.S. yields: those associated with changes in U.S. growth prospects (proxied by the S&P 500 index), and those reflecting changes in market perceptions of U.S. monetary conditions (proxied by the 10-year sovereign bond yield). The exercise assumes that an adverse monetary shock (such as perceived accelerated monetary tightening) increases yields and reduces stock prices in the United States, while a favorable real shock (such as one reflecting better growth prospects) increases both yields and stock prices (Matheson and Stavrev 2014; IMF 2014b; see Box SF1.1 for technical details).

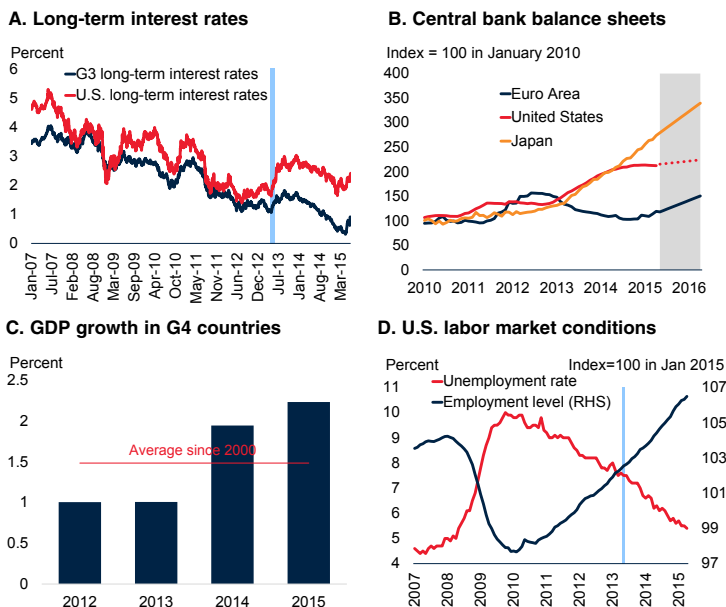
The results suggest that the initial increase in long-term yields after May 2013 largely reflected unfavorable monetary shocks: against the backdrop of concerns about the strength of the U.S. economy, financial markets perceived the taper-talk as signaling an accelerated monetary tightening (Figure SF1.2). In early 2013, economic data releases surprised on the downside and provided little indication that suggested sufficiently strong U.S. growth momentum to warrant rising long-term bond yields. As a result, real shocks contributed little to movements in 10-year U.S. bond yields.

Since the taper tantrum, however, monetary shocks, reflecting both domestic and external factors, have turned increasingly favorable. In late 2014, they began to push yields below May 2013 levels. Despite steadily shrinking Fed asset purchases between December 2013 and October 2014, financial conditions remained highly accommodative. Following ECB President Mario Draghi's speech in Jackson Hole in August 2014, market speculation intensified and was eventually proven right about the use of ECB's quantitative easing. The decline in Euro Area long-term bond yields also spilled over to U.S. long-term bond yields. At the same time, indications of an increasingly robust labor markets contributed to positive real shocks that exerted upward pressure on long-term yields.

If the timing of the liftoff and the subsequent path of policy rates are accurately reflected in market expectations, the normalization of U.S. policy rates amid robust growth prospects for the U.S. economy will be part of a smooth transition for global financial markets. U.S. long term yields will rise only modestly and the U.S. yield curve will flatten slightly, as in some earlier liftoff episodes (Figure

**FIGURE SF1.1 Conditions in advanced countries**

*Long-term interest rates remain at historic lows, especially in the Euro Area, and global financial markets have been bolstered by exceptionally accommodative monetary policies of the European Central Bank and Bank of Japan. The recovery in advanced countries is gathering momentum, benefiting growth in emerging markets. In the United States, labor markets are healing as the recovery is continuing.*



Source: Bloomberg, Haver, World Bank.  
A. Average of 10-year government bond yields of G3 countries (Euro Area, Japan, and United Kingdom) weighted by GDP. Blue bar shows the taper tantrum period in May-June 2013. The latest data point is for June 8, 2015.  
B. Grey area shows the forecast period.  
C. Aggregate GDP growth of G4 countries (United States, Euro Area, Japan, and United Kingdom)  
D. Blue bar shows the taper tantrum period in May-June 2013

SF1.3).<sup>6</sup> Such a fully anticipated normalization of U.S. policy rates should not trigger volatility in global financial markets or sharp reversals in capital flows in emerging markets.

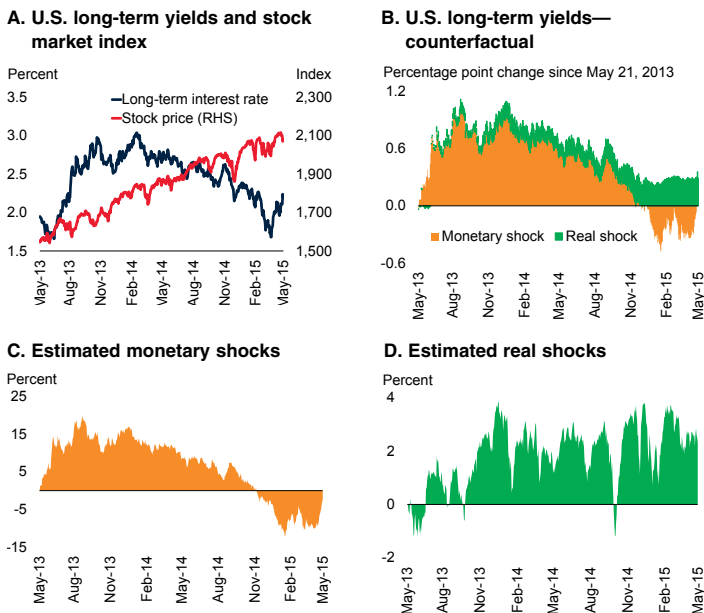
**What Are the Major Risks around the Liftoff?**

The magnitude of the market reaction during the taper tantrum of May-June 2013 underlines the risks surrounding the liftoff and subsequent rate

<sup>6</sup>In previous tightening episodes, the U.S. yield curve generally flattened and term premia rose only modestly, if at all, during the first year of the first rate increase (Adrian, Crump, and Moench 2013a). The particularly steep 1994 tightening cycle helped stabilize medium-term inflation expectations, reflected also in a narrowing term spread. The 2004 tightening cycle was accompanied by a narrowing term spread (also dubbed the “conundrum”), partly reflecting ample global liquidity and declining medium-term inflation expectations. This tightening episode—which, like the upcoming liftoff, also started at very low U.S. policy interest rates—was the most benign for emerging market currencies and capital flows. In contrast, term spreads initially widened during the tightening cycle that accompanied the particularly strong recovery in 1999.

## FIGURE SF1.2 Explaining movements in U.S. bond yields: monetary and real shocks

The sudden rise in U.S. long term yields after May 2013 was mainly due to adverse monetary shocks, as markets interpreted taper talk as signaling accelerated monetary tightening. Since then, favorable financial conditions have been pushing yields down, offsetting upward pressure from strengthening labor markets and activity.



Source: Haver, World Bank estimates.

A. Long-term interest rate is the 10-year U.S. Treasury yield and stock price refers to the S&P 500.

B. Based on estimates from the model, identifying monetary and real shocks using sign restrictions. All shocks except the shock of interest are shut down by setting them to zeros and the model is used to trace out the counterfactual long rate. The exercise is performed separately for monetary and real shocks. The orange (green) counterfactual shows how long rates would have evolved only with the estimated monetary (real) shocks. Numbers shown are in percentage points.

C, D. These are the time series of monetary and real shocks as estimated from the VAR model. Numbers shown are in cumulative percentages. The shock signs are such that whenever positive, they result in an increase in the long rate.

increases that could lie ahead. The 2013 episode was sparked by a statement that became known as “taper talk,” when Fed Chairman Bernanke mentioned the possibility of the Fed slowing its asset purchases “in the next few meetings” on May 22, 2013 (Bernanke 2013b). While financial markets had expected such an action at some point in the future, they were surprised by the mention of an approximate timeframe. Within a couple months of the initial taper talk, U.S. 10-year Treasury yields increased by 100 basis points.

The jump in U.S. yields was quickly followed by a spike in financial market volatility in emerging economies. Specifically, emerging market currencies depreciated, bond spreads rose steeply, foreign portfolio inflows to emerging-market bond and equity funds fell sharply, and liquidity tightened (Figure SF1.4). This forced many emerging markets to tighten monetary policy, intervene in currency markets, and, in some cases, introduce exceptional measures to prevent capi-

tal outflows.<sup>7</sup> Although U.S. bond yields have since fallen back, long-term bond yields in emerging markets remain above those of early 2013.

U.S. financial markets may currently be vulnerable to a sharp tightening around the liftoff or subsequent tightening cycle. The term premium is exceptionally low, expectations about medium-term interest rate paths diverge between market participants and Federal Open Market Committee (FOMC) members, and market liquidity conditions are fragile.

- *Low term premium.* The term premium in the United States is exceptionally compressed.<sup>8</sup> The current low U.S. term premium partly reflects modest assessment of inflation risks and strong global demand for U.S. treasuries as safe assets.<sup>9</sup> This has been reinforced by low interest rates for assets denominated in other reserve currencies, which in part resulted from quantitative easing programs by other major central banks (Bernanke 2015). Inherent in the current low term premium is the risk of a sudden widening, with greater uncertainty potentially leading to a surge in long-term yields (Yellen 2015c).<sup>10</sup>
- *Gap between market and FOMC expectations.* Since 2014, expectations for the path of future policy rates among market participants have been considerably (currently more than 100 basis points in 2017 and beyond) below those of

<sup>7</sup>Recent studies—such as Sánchez (2013); Díez (2014); Dahlhaus and Vasishtha (2014); Ikeda, Medvedev, and Rama (2015); and Koepke (2015b)—emphasize the critical role of expectations in determining the scale of macroeconomic adjustments in developing countries in the event of a U.S. interest rate hike. They report that the large macroeconomic adjustments in developing countries during the taper tantrum reflected the fact that the consequences of Fed tapering had not yet been “priced in.” In contrast, the relatively milder movements in developing-country financial markets during the actual taper period (December 2013–October 2014) suggested that markets had already adjusted their expectations accordingly.

<sup>8</sup>Long term interest rates can be decomposed into expectations about the future path of real policy interest rates, inflation expectations, and a term premium. The term premium is therefore the extra return required by investors to hold a longer-term bond instead of re-investing in successive short-term securities. Typically, the term premium is positive.

<sup>9</sup>See Williams (2015), Abrahams et al. (2015), Blanchard, Furceri, and Pescatori (2014), and Caballero and Farhi (2014) for details on these observations.

<sup>10</sup>U.S. term premia are highly correlated with macroeconomic and financial uncertainty, reflected in disagreement about future inflation among professional forecasters, consumer confidence, and implied volatility in U.S. Treasury markets (Abrahams et al. 2015). Previous monetary policy surprises and the Federal Reserve’s large-scale asset purchases have been important drivers of U.S. term premia in recent years.



members of the FOMC (Figure SF1.3).<sup>11</sup> This implies a risk that market perceptions suddenly adjust upwards. Such a change could, for example, be triggered by a market reassessment of the likelihood of a protracted period of low growth or inflation that would be associated with an extended period of monetary accommodation.

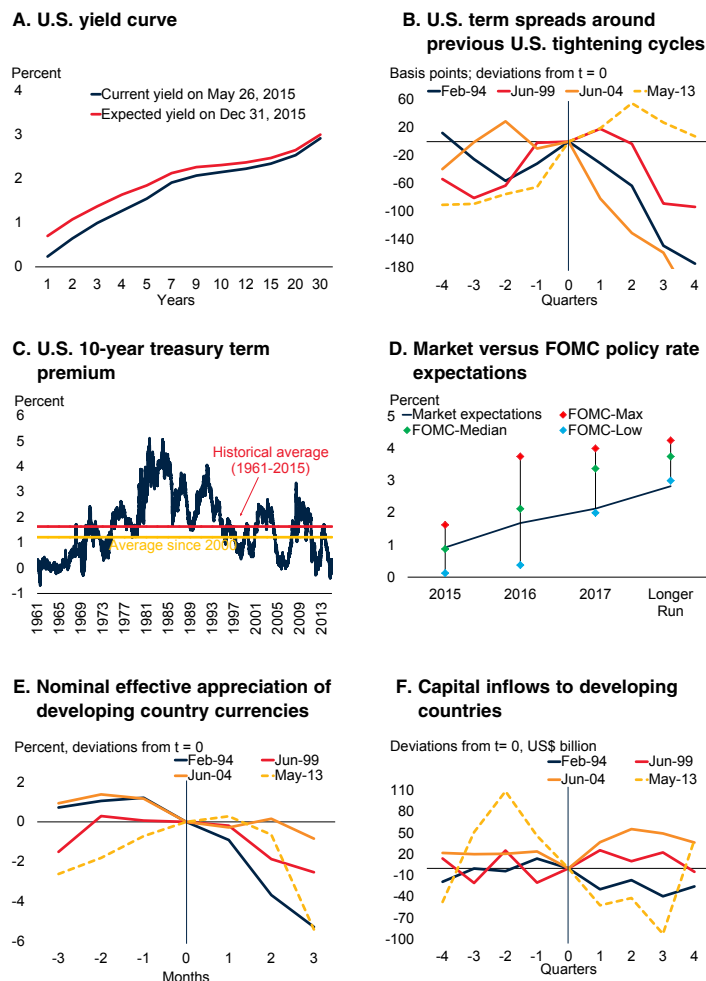
- Fragile market liquidity.** Several factors make liquidity conditions more fragile than before the global financial crisis, even in deep sovereign bond markets in advanced countries. The volume of primary dealer trading—which typically smoothes liquidity over fluctuations in other market participants’ demand and supply—has fallen relative to outstanding treasury bonds (Figure SF1.5). In particular, bank’s dealer inventories and market-making activities have declined as a result of changing business models, diminished bank risk appetite, and tighter regulatory requirements for liquidity and other buffers (IMF 2015; Committee on the Global Financial System 2014). As a result, the role of less-regulated, non-bank market intermediaries has increased since the global financial crisis (Blume and Keim 2012; Fender and Lewrick 2015). Traditionally less volatile, long-term focused institutional investors such as pension and insurance funds may also have become more procyclical in their behavior.<sup>12</sup> While the composition and behavior of private debt holders has changed, their overall share in total debt holdings has also declined from pre-crisis levels as central bank’s holdings of sovereign bonds increased with quantitative easing programs.

<sup>11</sup>This gap reflects uncertainty about prospects for policy rates over the medium and long run (Williams 2015; Hamilton et al. 2015), with market participants expecting them to remain low for a considerable period of time while FOMC members foresee a gradual rise in coming years, as post-crisis legacies and uncertainties unwind (Yellen 2015a).

<sup>12</sup>During the taper tantrum, market liquidity deteriorated rapidly in U.S. Treasury markets, as primary dealers reduced their inventories at a time when interest rate risks were re-priced more generally (Adrian et al. 2013). Liquidity strains spread rapidly across markets, leading to particularly large adjustments in emerging market asset prices (García-Luna and van Rixtel 2013). Portfolio outflows were concentrated in the most liquid emerging markets (Eichengreen and Gupta 2014) and were largely driven by retail investors. In 2013, institutional investors generally maintained their exposures (World Bank 2014b). However, institutional investors have begun to act less countercyclically and, under acute and persistent market stress, could contribute to a “rush to the exit” (IMF 2014a; Bank of England and Procyclicality Working Group 2014; Opazo, Raddatz and Schmukler 2014; Raddatz and Schmukler 2012). Through their hedging activities, they can also add to exchange rate pressures (IMF 2013).

**FIGURE SF1.3 A smooth liftoff in light of past episodes?**

If the liftoff proceeds smoothly as expected, the term spread would remain narrow as happened in some past episodes of first rate hikes in a tightening cycle. However, there remains a risk of a spike in long-term interest rates, especially since term premia are well below their historical average and market expectations of future interest rates are below those of members of the Federal Open Market Committee (FOMC).

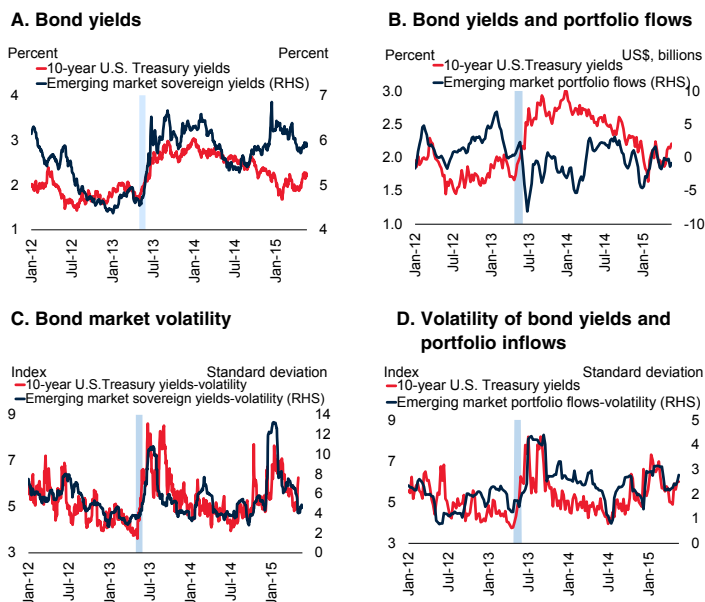


Source: IMF, Haver Analytics, Bloomberg, Federal Reserve Bank of New York, World Bank, U.S. Fed FOMC. B. Term spread denotes the difference between 10-year U.S. Treasury and 6-month T-bill yields, four quarters before until four quarters after the launch of the U.S. tightening cycle (t = 0). C. Term premium estimates are obtained from the model described in Adrian, Crump, and Moench (2013b). This model belongs to the affine class of term structure models which characterize yields as linear functions of a set of pricing factors. E. The x-axis shows the number of quarters before and after t = 0, where t = 0 is February 1994, June 1999, June 2004, and May 2013. F. Excluding China.

Apart from the possibility of broad-based market volatility, the risks around the liftoff differ in their specifics from those that materialized during the taper tantrum. In particular, taper talk signaled a tightening that directly affected the long end of the yield curve, because it related to Fed purchases of long-term debt securities and, thus, raised the term premium. In contrast, the liftoff would be a policy move at the short end of the yield curve, with only indirect pass-through into long-term yields.

## FIGURE SF1.4 U.S. bond yields and capital flows during the taper tantrum

Between 2012 and 2014, emerging market bond yields closely followed U.S. Treasury 10-year yields. The sharp rise in U.S. yields in May-June 2013 was accompanied by a marked fall in capital inflows to developing countries and increased volatility. The volatility in U.S. bond markets coincided with volatility of developing-country bond yields and capital inflows.



Source: Bloomberg, Emerging Portfolio Fund Research, JPMorgan Chase, CBOE, and World Bank.

Note: Blue bars show the taper tantrum period of May-June 2013.

A. Based on JPMorgan EMBIG sovereign bond yield index.

B. 4-week moving average of net inflows to developing-country bond and equity funds.

C. Volatility index for U.S. Treasury yields refers to the expected volatility of the price of 10-year U.S. Treasury note futures (CBOE's TYVIX index). Volatility of developing-country bond yields refers to 30-day rolling standard deviation of JPMorgan EMBIG sovereign bond yield index.

D. Volatility of developing-country portfolio flows refers to 12-week rolling standard deviation of net inflows to developing-country bond and equity funds.

## What Are Possible Implications of the Liftoff for Emerging Markets?

The impact of increasing U.S. yields on emerging markets depends on the trigger of the increase. Rising U.S. yields that reflect a strengthening U.S. economy would likely be associated with stronger growth in emerging markets. In contrast, rising U.S. yields that reflect a perception of accelerated monetary tightening would likely be accompanied by deteriorating activity and tightening financial conditions and, hence, with financial market volatility in and capital outflows from emerging markets.

**Impact on activity and financial markets.** A panel VAR model is employed to examine the diverging impacts of different types of U.S. shocks on activity and financial markets in emerging market economies (see Box SF1.1 for technical details). Activity

indicators (industrial production) and financial market indicators (stock prices, nominal effective exchange rates, long-term bond yields) for emerging markets are regressed on the monetary and real shocks identified in the econometric exercise above.

As expected, the results suggest that a U.S. yield increase resulting from a favorable real shock has a considerably more benign impact on emerging markets than one resulting from an adverse monetary shock (Figure SF1.6). An adverse U.S. monetary shock is associated with falling stock prices, depreciating emerging market currencies, and shrinking industrial production—all consistent with capital outflows. A favorable U.S. real shock, on the other hand, results in rising stock prices and increasing industrial production.

**Impact on capital flows.** As they did during the taper tantrum, there is a risk that financial market participants consider the eventual liftoff and the subsequent tightening cycle—even if “telegraphed” by the Fed and expected in principle for some time—as an accelerated tightening of monetary conditions. As in the taper tantrum, it could be interpreted by markets as a purely unfavorable monetary shock, sharply raising U.S. long-term yields. This would likely dampen capital flows to emerging markets.

A VAR model of capital flows and financial conditions is used to examine the potential role of rising U.S. bond yields (Lim, Mohapatra, and Stocker 2014). Quarterly capital flows, including foreign direct investment, portfolio, and bank flows, are regressed on global interest rates, financial market volatility, and growth in major advanced and emerging economies (see Box SF1.1 for technical details).

The results indicate that about one-third of quarterly fluctuations in aggregate capital inflows to emerging markets since the early 2000s can be ascribed to changing global financing conditions (Figure SF1.7). Both short-term and long-term interest rate increases in major economies tend to dampen capital flows to emerging markets. In addition, a steepening yield curve is often associated with higher financial market volatility which, in turn, further reduces capital flows to emerging markets.<sup>13</sup>

<sup>13</sup>Higher U.S. term premia and a steepening yield curve are often associated with higher financial market volatility and greater risk aversion (Abrahams et al. 2015; Adrian, Crump, and Moench 2013b; Borio and Zhu 2012; Adrian and Shin 2011; Dell’Ariccia, Laeven and Mar-



If market expectations for medium-term interest rates suddenly adjust upwards around liftoff, U.S. yields could increase abruptly as seen during the taper tantrum. Significant co-movement between long-term interest rates across major advanced countries could contribute to the propagation of the initial shock.<sup>14</sup> Depending on the pass-through to other advanced countries' interest rates, capital flows to emerging markets could slow sharply over the following year. Should U.S. term spreads increase by 100 basis points, the fall in capital flows to emerging markets could be in the range of 0.8–1.8 percentage points of their combined GDP or a decline between 18 and 40 percent in the level of capital flows (Figure SF1.7).

- *Full pass-through.* A 100 basis-point increase in U.S. yields that is accompanied by a similarly sharp increase in yields in the Euro Area, Japan, and the United Kingdom would trigger a sudden increase in market volatility and a temporary drop in capital inflows to emerging markets, with the decline peaking after four quarters at 1.8 percentage points of GDP (corresponding to a 40 percent dip in aggregate capital flows). The magnitude of the effect is in line with the estimated impact of a 100 basis-point real U.S. yield shock found by Adler, Djigbenou, and Sosa (2014) and a 120 basis-point shock in U.S. yields on portfolio flows found by Dahlhaus and Vasishtha (2014).
- *Partial pass-through (as in taper tantrum).* If other major economies' yields adjust in a manner similar to the taper tantrum (when global yields increased by 70 basis points following an increase in U.S. yields of 100 basis points), capital flows could fall by about 30 percent, or 1.3 percentage points of GDP.
- *No pass-through.* Should long-term yields in other major economies remain broadly unaffected, capital flows to emerging markets would fall considerably less, by about 18 percent or

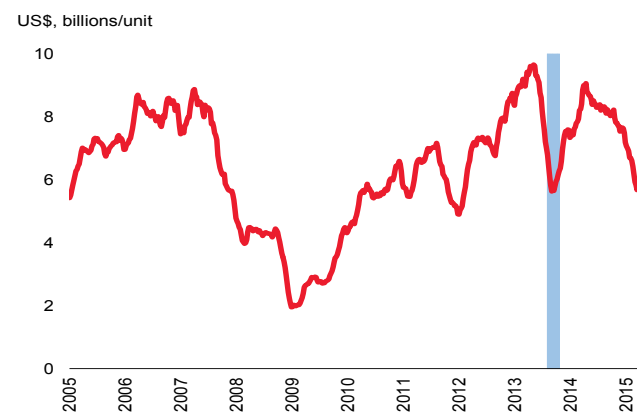
quez 2013). Greater risk aversion and volatility, in turn, reduce capital flows to emerging countries further (Fratzcher 2012; Forbes and Warnock 2012; Bruno and Shin 2015; Lo Duca 2012; Ahmed and Zlate 2013; Bluedorn et al. 2013; Rey 2013).

<sup>14</sup>Based on a variance decomposition, Diebold and Yilmaz (2015) suggest that long-term interest rates among non-U.S. major advanced economies co-move (with some lag) with U.S. long-term interest rates. Hunter and Simon (2005) find that bond market returns and volatility in the United States lead those of German and Japanese bond markets.

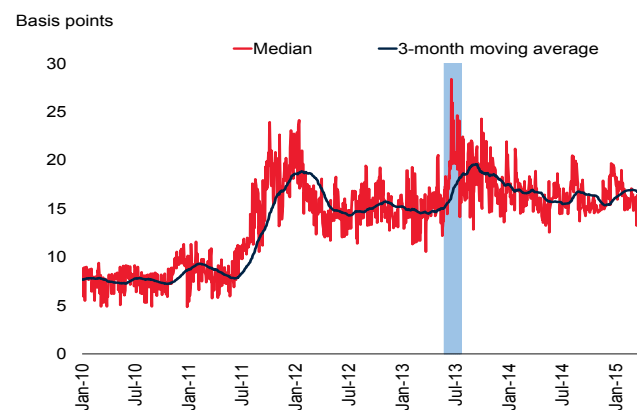
### FIGURE SF1.5 Market liquidity

Shocks can trigger sharp volatility especially in illiquid markets. At the height of the Euro Area crisis and during the taper tantrum, liquidity in some emerging bond markets dropped off sharply, driving up bid-ask spreads. With shrinking primary dealer transactions, treasury market liquidity conditions have also become more fragile.

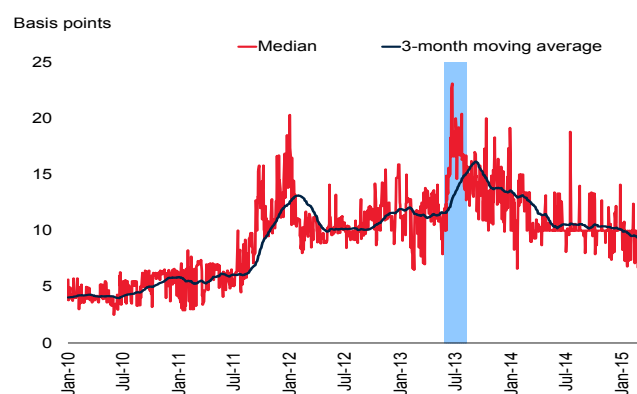
#### A. Primary dealer treasury transactions



#### B. Bid-ask spread on emerging market foreign currency bonds



#### C. Bid-ask spread on emerging market local currency bonds



Source: Federal Reserve Bank of New York, Bloomberg, World Bank.

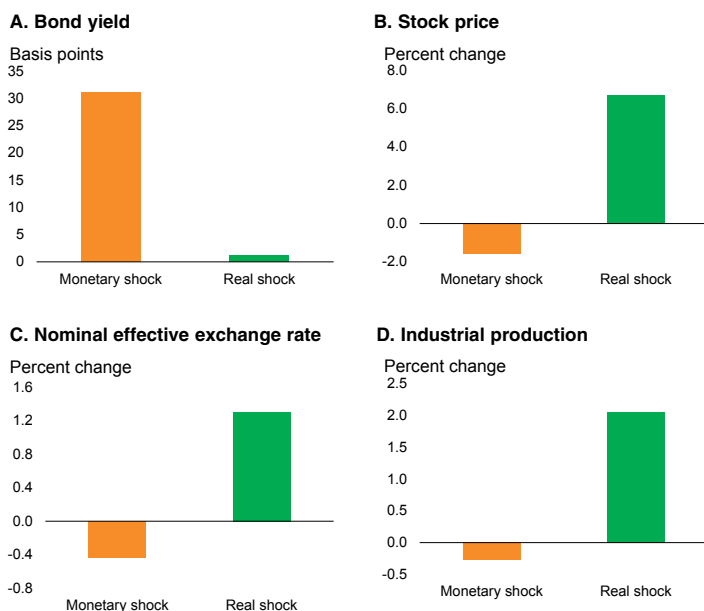
Note: Blue bars show the taper tantrum of May-June 2013.

A. Line shows primary dealer Treasury transactions divided by the Merrill Option Volatility Estimate (MOVE) index (12-week moving average). Merrill Option Volatility Estimate (MOVE) is a yield curve weighted index of the normalized implied volatility on 1-month Treasury options.

B. C. Countries include Brazil, Chile, Colombia, Hungary, Indonesia, the Republic of Korea, Lithuania, Philippines, Poland, Romania, Turkey, and South Africa. Median bid-ask spreads on 10-year government bonds.

## FIGURE SF1.6 Implications of monetary and real shocks on activity and financial markets in emerging markets

*U.S. bond yield hikes caused by favorable U.S. real shocks have more benign effects on emerging markets than those caused by adverse U.S. monetary shocks. U.S. bond yield jumps associated with real shocks tend to raise equity prices and production in emerging markets, and appreciate their currencies. Those caused by U.S. monetary shocks tend to raise bond yields in emerging markets and depreciate their currencies.*



Source: Haver, Bloomberg, World Bank estimates.

Note: Impulse responses after 12 months from a panel VAR model including emerging markets' industrial production, long-term bond yields, stock prices, nominal effective exchange rates and bilateral exchange rates against the U.S. dollar, and inflation, with monetary and real shocks (estimated as in the previous section) as exogenous regressors. All data are monthly or monthly averages of daily data, for January 2013–March 2015 for 19 emerging markets. For comparability, the size of the U.S. real and monetary shocks is normalized such that each shock raises developing-country bond yields by 100 basis points on impact.

A. Bond yields refer to the yields on 10-year (or nearest equivalent) government treasury bonds.

B. Stock price indices are the general price indices from Haver.

C. An increase denotes an appreciation. GDP-weighted average of emerging-market exchange rates.

0.8 percentage point of GDP after a year. Quantitative easing or other monetary policy easing by other major central banks could insulate their markets from pass-through and reduce the impact of rising U.S. bond yields on emerging markets.

The magnitude of the potential decline in capital flows estimated here is both statistically and economically significant, implying considerable challenges for those emerging markets facing more acute vulnerabilities. However, the overall effect for emerging and developing countries remains modest in view of the historical volatility of capital flows. A decline of 40 percent in capital inflows, or 1.8 percentage points of GDP, would be broadly equivalent to a decline of one standard deviation in quarterly flows since the start of the 2000s (compared with the typical definition of a sudden stop in the literature as a two-standard deviation shock).

Under certain conditions, an abrupt increase in U.S. yields could lead to outright sudden stops in capital flows to some emerging markets, which could take a heavy economic toll.<sup>15</sup> The sudden stops in capital flows during the 1990s and 2000s had significant economic costs (Claessens and Kose, 2014; Table SF1.1). For example, about two-thirds of 33 sudden stop episodes through the 1990s and early 2000s were associated with output collapses—contractions in GDP of 4.4 percent from peak to trough (Calvo, Izquierdo, and Talvi 2006).<sup>16</sup> Some sectors are particularly vulnerable to output losses as a result of sudden stops due to their reliance on debt finance, including construction, wholesale and retail trade, transport, and communications (Craighead and Hinline 2013). Compared with the earlier episodes, the impact of sudden stops on emerging market asset prices could be amplified by the increasing role of the non-bank sector and bond financing in channeling liquidity to emerging markets (Shin 2013).

## What Are the Major Lessons for Emerging Markets from the Taper Tantrum?

The results above pertain to emerging markets as a group. However, tightening financial conditions would likely put emerging markets with weak growth prospects, policy uncertainty, or lingering vulnerabilities under greater pressure than their less vulnerable peers with better growth prospects and policies.

During the taper tantrum, around 12 percent of emerging market and developing countries experienced sustained declines in capital inflows, especially portfolio inflows (Figure SF1.7). Emerg-

<sup>15</sup>Koepke (2015b) reports that Fed tightening cycles coincide with higher incidence of financial crises particularly in the year of the first rate hike, and to a lesser extent in the prior and the following year. Escolano, Kolerus, and Ngouana (2014) find the frequency of emerging market sovereign debt crises increases around episodes of U.S. monetary policy tightening that are associated with widening term spreads.

<sup>16</sup>Cardarelli, Elekdag, and Kose (2010), examining 109 episodes of large net private capital inflows to 52 countries over 1987–2007, report that the typical post-inflow impact on GDP growth for episodes that end abruptly is about 3 percentage points lower than during the episode, and about 1 percentage point lower than during the two years before the episode. Claessens et al. (2014) provide a comprehensive review of the literature on financial crises, including sudden stops, in light of recent evidence.

ing market currencies depreciated, bond spreads jumped, foreign portfolio inflows to emerging-market bond and equity funds fell sharply, volatility increased, and liquidity tightened.<sup>17</sup> An extensive literature has identified the following key factors and policy responses characterizing the impact of the taper tantrum (Table SF1.2).

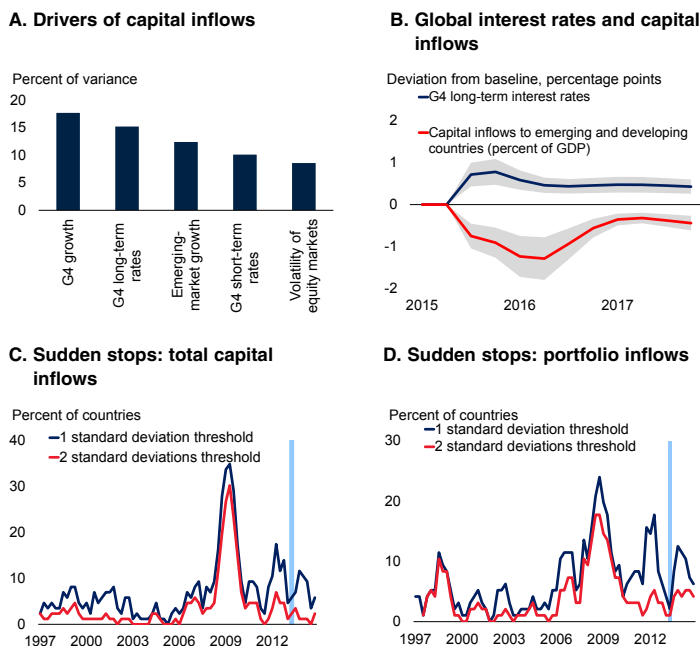
- *Initial impact versus longer-term impact.* The taper talk initially triggered indiscriminate capital outflows from emerging markets. Over time, greater country differentiation emerged as capital flows returned to some countries but not to others (Sahay et al., 2014; Lavigne, Sarker, and Vasishtha 2014).
- *Differentiation depending on country characteristics and policies.* Financial market disruptions during the taper tantrum period were particularly sizable in countries with weaker macroeconomic fundamentals, larger financial markets, and less robust policy responses. Large current account deficits following a period of rapid real appreciation, modest international reserves, and weaker growth prospects were associated with sharper drops in capital inflows and disruptions in financial markets. Larger and more liquid financial markets—including as a result of past capital inflows—also experienced greater exchange rate pressures, foreign reserve losses, and equity price drops.<sup>18</sup> In some countries, these impacts were mitigated by proactive policy responses. Liquidity provision, interest rates hikes, removal of restrictions on capital inflows, and, in some cases, foreign currency intervention helped stem depreciations, stock market declines, and bond yield jumps; fiscal policy announcements appeared to be less effective in mitigating the impact of short-term financial stress (Sahay et al. 2014).

<sup>17</sup>Dahlhaus and Vasishtha (2014) document the modest shock to portfolio capital flows to emerging markets during the taper tantrum that, nevertheless, triggered significant financial market adjustment in some emerging markets. Díez (2014) examines the exchange rate adjustment in emerging markets during the taper tantrum. Lim, Mohapatra, and Stocker (2014) calibrate the possible impact of future policy tightening to the taper tantrum.

<sup>18</sup>For details about these observations, see Aizenman, Binici, and Hutchison (2014); Chapter 3 of IMF (2014c); Avdjiev and Takats (2014); Basu, Eichengreen, and Gupta (2014); Collins and Koepke (2015); Díez (2014); Mishra et al. (2014); Rai and Suchanek (2014) and Eichengreen and Gupta (2014).

## FIGURE SF1.7 Surging U.S. yields and capital inflows to emerging and developing countries

Changing global financial conditions—especially U.S. yields—account for a large part of movements in capital flows to emerging market and developing countries. A 100 basis-point rise in U.S. 10-year yields could trigger a drop in capital inflows to developing countries, which could lead to “sudden stops.”



Source: World Bank, Bloomberg.

A. Figure shows the variance decomposition of capital inflows to developing countries after 8 quarters, according to a six-dimensional VAR model estimated over the period 2000Q1 to 2014Q4. The model links aggregate capital inflows to developing countries (including foreign direct investment, portfolio investment and other investment as share of GDP), to quarterly real GDP growth in both developing and G-4 countries (United States, Euro Area, Japan and the United Kingdom), G-4 short-term interest rates (three month money market rates), G-4 10-year government bond yields, and the VIX index of implied volatility of S&P 500 options. To compute the variance decomposition, a structural identification was derived from a Cholesky decomposition on the covariance matrix, using the following order of variables: G-4 GDP growth, developing countries' GDP growth, G-4 short-term rates, G-4 long-term rates, VIX and capital inflows to developing countries. Impulse responses show that a shock in G-4 long-term rates has a peak effect on capital flows after 4 quarters, while the impact remains significant at a 90 percent confidence interval up to 6 quarters.

B. The 100 basis point shock on the U.S. term spread was applied to the VAR model assuming a range of pass-through rates to Euro Area, U.K. and Japanese bond yields, from zero to 100 percent. Grey area shows the range of estimated effects on capital inflows depending on pass-through rates (the lower bound corresponds to a zero pass-through rate implying a 40 basis points shock to global bond yields, while the upper bound corresponds to a 100 percent pass-through rates, or a 100 basis points shock to global bond yields). In the median case, global bond yields increase initially by 70 basis point, which corresponds to the observed pass-through rate during the taper tantrum.

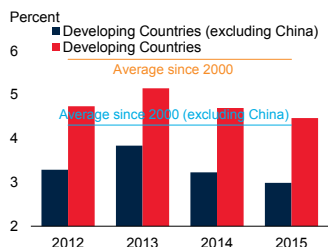
C, D. Figures show the fraction of 86 emerging and developing countries that experienced a sudden stop. The methodology used to identify sudden stop episodes at the individual country level is based on Forbes and Warlock (2012), with the threshold being defined as a decline in flows larger than one (or two) standard deviation(s) around a five-year rolling mean. Blue bars show the taper tantrum period of May-June 2013.

- *Differentiation depending on asset classes.* The differentiation by fundamentals, financial market size, and policies was particularly pronounced for certain types of capital outflows. For example, cross-border bank flows to a number of emerging market economies—especially in Latin America—with sizable U.S. dollar-denominated liabilities fell especially sharply during the taper tantrum (Avdjiev and Takats 2014; García-Lunaa and van Rixtel 2014). In contrast, FDI flows were broadly stable

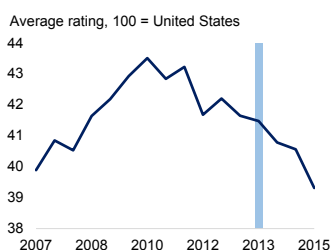
## FIGURE SF1.8 Growth prospects in emerging and developing economies

Since the taper tantrum in May-June 2013, growth prospects of emerging markets have deteriorated and credit ratings have worsened.

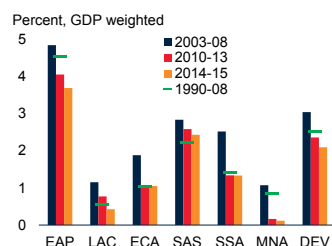
### A. Developing-country growth



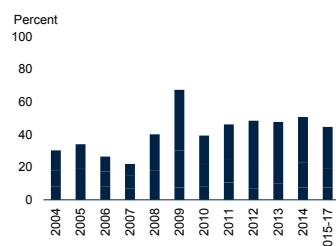
### B. Developing-country rating by institutional investors



### C. Productivity growth in developing regions



### D. Fraction of developing countries with slower growth than 1990-2008 average



Source: Haver, World Bank estimates.

B. Unweighted average of 120 developing-country institutional investor ratings. Ratings are based on information provided by sovereign-risk analysts at global banks and money management and securities firms. The countries are graded on a scale of zero to 100, with 100 representing the least likelihood of default. Ratings are reported in percent of the United States' score. The blue line shows the taper tantrum period in 2013H2.

C. GDP-weighted annual averages. DEV = developing-country average; EAP = East Asia and Pacific; ECA = Europe and Central Asia; LAC = Latin America and the Caribbean; MNA = Middle East and North Africa; SAS = South Asia; SSA = Sub-Saharan Africa.

D. For each year, the fraction of developing countries in which growth is slower than its historical average for 1990-2008. For 2015-17, the average of three years is shown.

(Basu, Eichengreen, and Gupta 2014), and drops in equity market valuations were more uniform across countries (Mishra et al. 2014; Rai and Suchanek 2014).

Lessons from the taper tantrum episode are consistent with those from the broader literature on sudden stops in capital inflows. Country-specific vulnerabilities not only increase the probability of a sudden stop, but also intensify its severity in terms of currency depreciation, private sector credit contraction, and growth declines, and lengthen the time it takes for growth to revert to its long-term trend (see also Table SF1.1). A greater reliance on FDI and equity flows instead of debt flows and cross-border bank loans may reduce the severity of sudden stop episodes (Levchenko and Mauro 2007).

## How Have Growth Prospects and Vulnerabilities in Emerging Markets Changed since the Taper Tantrum?

Country-specific “pull” factors, including macroeconomic fundamentals and policies, play an important role in determining the direction and magnitude of capital flows. Since the taper tantrum, macroeconomic fundamentals in several emerging markets have weakened, and as a result, their credit ratings have on average deteriorated (Figure SF1.8).

Growth prospects have dimmed for emerging markets over the past five years. Specifically, growth in emerging markets has slowed steadily since 2010 and has repeatedly fallen short of expectations, including in 2015. Investment growth in emerging markets has slowed from pre-crisis rates (Chapter 1), and it might be further held back by the upcoming tightening in global financial conditions. Export growth is expected to remain on its weak post-crisis trend (World Bank 2015).

Although, on average, emerging markets' macroeconomic and financial vulnerabilities appear manageable, weak growth could reduce their resilience over time (Figure SF1.9). Government debt levels are, on average, moderate around 45 percent of GDP.<sup>19</sup> Fiscal deficits, while larger than in 2007, amount to about 4 percent of GDP but are expected to narrow in oil-importing countries as a result of declining expenditures on fuel subsidies following last year's significant drop in oil prices. In oil-importing countries, inflation has fallen, allowing central banks in some countries to reduce monetary policy rates to support growth. In contrast, fiscal and monetary policy room has shrunk in oil-exporting countries as oil revenue shortfalls weakened fiscal balances (although, on average, from near-balance) and depreciation pressures reduced reserves (although typically from ample levels) or raised inflation.

<sup>19</sup>In frontier markets, however, government debt has increased since the global financial crisis, partly reflecting a rapid increase in bond issuance in global capital markets (although from low levels). In some frontier markets, rising government debt has been accompanied by rapidly growing private sector credit (World Bank 2015).



However, these averages mask considerable differences across countries (Figure SF1.10).<sup>20</sup>

- While there has been an improvement in current account balances among oil-importing economies, deficits remain elevated for several of them. Foreign reserves have increased, but for some countries only modestly, and came under pressure in some oil-exporting countries in early 2015.
- Inflation has moderated for some oil-importing countries, but is still at or above formal or informal inflation targets in several of them.
- Private debt has edged up despite slower credit growth in some countries. Public debt has increased in some emerging markets and primary balances have deteriorated, particularly among commodity exporters.
- Given the pre-eminent role of the U.S. dollar as the currency denomination of cross-border debt, a dollar appreciation constitutes a tightening of global financial conditions and could heighten risks associated with liability exposures and dollar shortages (Borio 2014).<sup>21</sup> Foreign currency exposures are elevated, especially in several commodity exporters and frontier and emerging markets that have received large capital inflows since the crisis (Figure SF1.11).

Despite the general lack of major progress, there are individual countries that have succeeded in reducing some of their vulnerabilities. For example, Indian financial markets fell sharply during the taper tantrum, amid macroeconomic conditions that had weakened in prior years and had left it vulnerable to capital outflows (Basu, Eichengreen, and Gupta 2014). The Indian economy has since shown notable improvement, particularly in reducing its high current account deficit and inflation.

For those countries with significant vulnerabilities, financial market volatility around the liftoff or in the subsequent tightening cycle could potentially combine

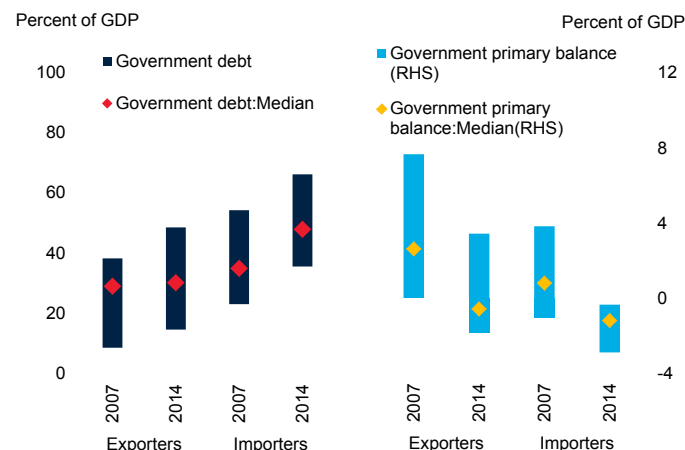
<sup>20</sup>In addition to individual indicators of emerging market vulnerabilities, a number of aggregate indicators have been developed, such as the index of emerging market vulnerabilities used in the Federal Reserve Board's Monetary Policy Report in February 2014, the heat map index of external vulnerabilities computed by the Institute of International Finance (2015), or Santacreu (2015). While summary indicators are useful to illustrate the evolution of aggregate vulnerabilities over time, they tend to blur differences in sources of vulnerabilities.

<sup>21</sup>Schularick and Taylor (2012) and Bruno and Shin (2013) highlight how currency developments interact with the role of leverage in complex ways in building financial vulnerabilities.

## FIGURE SF1.9 Debt, deficits and inflation in emerging markets: Oil exporters vs. oil importers

*Fiscal positions in emerging markets have deteriorated since the crisis, but debt and deficits remain, on average, moderate. Inflation has declined in oil-importing countries, partly as a result of low oil prices.*

### A. General government debt and balance



### B. Median inflation



Source: World Bank, International Monetary Fund, Haver Analytics.

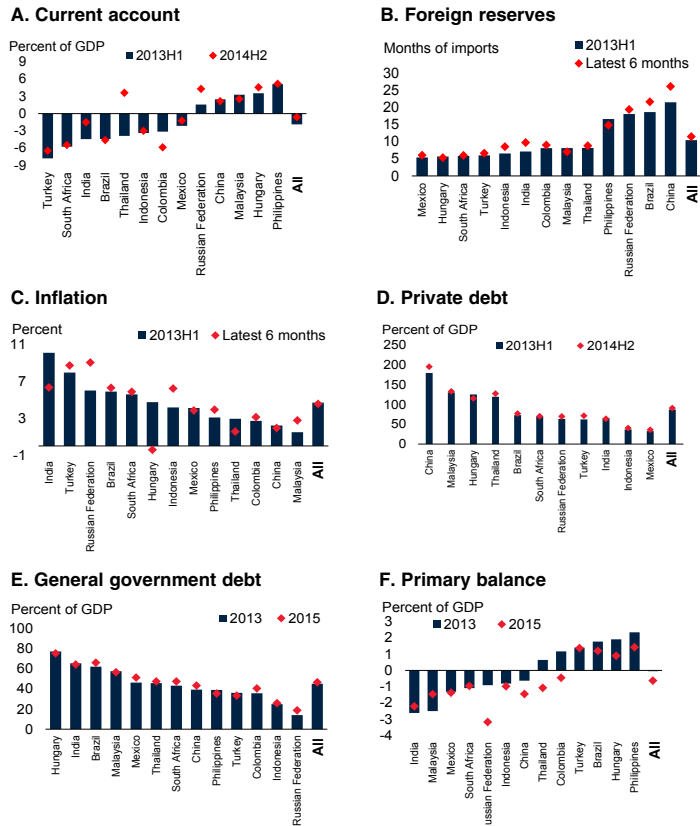
A. Bar illustrates interquartile range for developing countries. Dot shows median for developing countries.

B. For developing countries. Hydrocarbon exporters (as proxy for oil exporters) are Algeria, Angola, Argentina, Azerbaijan, Cameroon, Côte d'Ivoire, Colombia, Chad, Ecuador, Gabon, Indonesia, the Islamic Republic of Iran, Iraq, Kazakhstan, Libya, Malaysia, Mexico, Nigeria, Papua New Guinea, South Africa, Sudan, Turkmenistan, Uzbekistan, República Bolivariana de Venezuela, Vietnam, and the Republic of Yemen.

with other domestic pressures (for example, a large current account deficit, uncertainty about policy direction, or significant deterioration of growth prospects) into a perfect storm that leads to a sudden stop. An abrupt change in risk appetite for emerging market assets could lead to contagion effects affecting capital flows in countries that are highly integrated in international capital markets. Such contagion may take place even if the affected countries have limited domestic vulnerabilities (Calvo and Reinhart 1996; Kaminsky 2008). For example, investor confidence could be dented by uncertainty about policy direction or deteriorating growth

## FIGURE SF1.10 Evolution of vulnerabilities in emerging markets since the taper tantrum

Although, on average, current account balances have improved and reserve coverage increased (partly as a result of lower oil prices), there has been wide variation across countries. Private debt and inflation have, on average, increased and fiscal positions have deteriorated.



Source: Bank for International Settlements, Haver Analytics, World Bank, IMF.

A. "All" refers to the un-weighted average among all listed countries.

B. Foreign reserves include gold.

C. Inflation is the 6-month average of the annual average consumer price inflation.

D. Private debt is defined as the sum of private non-financial sector debt and household debt.

F. Primary balance excludes net interest payments.

prospects. This could turn a manageable slowdown in capital inflows as part of a broader emerging market retrenchment around the liftoff into a sudden stop in inflows and translate into a sharp decline in activity. Even countries that are not directly exposed to global financial market shocks could be affected through intraregional spillovers from their larger, financially more integrated neighbors. Whereas within-regional financial exposures often tend to be limited, trade, remittance, and direct investment links are strong in some regions.<sup>22</sup>

<sup>22</sup>In some cases, official financing could be an additional channel for transmission of fiscal stress (e.g., from República Bolivariana de Venezuela through the PetroCaribe arrangement or from Gulf Cooperation Council countries to countries in the Middle East and North Africa through budget support; IMF 2014b). There can also be strong contagion effects from intraregional volatility of capital flows (Lee, Park, and Byun 2013).

## What Policy Options Are Available to Prepare for Risks around Liftoff?

Emerging market policy makers have several options to prepare for the risks associated with the coming tightening cycle. Foremost among them are the adoption of policies that reduce vulnerabilities and the proactive pursuit of structural reform agendas that improve growth prospects.

- Monetary and financial policies.* In several oil-importing countries, inflation is running at or near the top of formal or informal target bands. For central banks in these countries, buttressing monetary policy credibility may be a priority. Elsewhere, for example in oil-exporting countries where growth has softened but inflation has been driven up by depreciation, banks with high foreign currency vulnerabilities or heavy reliance on short-term debt may merit close monitoring or tighter prudential requirements.
- Fiscal policy.* Although emerging market sovereign debt is significantly less than in the early 2000s, fiscal deficits widened rapidly in the aftermath of the global financial crisis and have yet to return to pre-crisis levels. Over the medium-term, several emerging markets need to improve their fiscal positions (World Bank 2015). Many oil-exporting countries are already tightening fiscal policy, even as growth slows. Although this exacerbates growth slowdowns, it will help preserve buffers that could be used if risks around the liftoff materialize. Oil-importing countries that benefit from savings on lower energy subsidies or higher energy taxes could seize the opportunity to build fiscal buffers to regain policy space for effective fiscal stimulus that may be needed in the future.
- Structural reforms.* Given the limited room for fiscal and monetary policy adjustment to reduce vulnerabilities, the proactive pursuit of structural reforms that improve long-term growth prospects are an integral part of preparing for the liftoff. Although the benefits of reforms take time to materialize, decisive moves to implement ambitious reform agendas signal to investors that growth prospects are improving (Kose et al. 2010). In investors' differentiated views, this could make the difference between capital



outflows and inflows. In addition to raising long-term growth, some reforms—especially those requiring investment in infrastructure projects—can support cyclically weak demand.

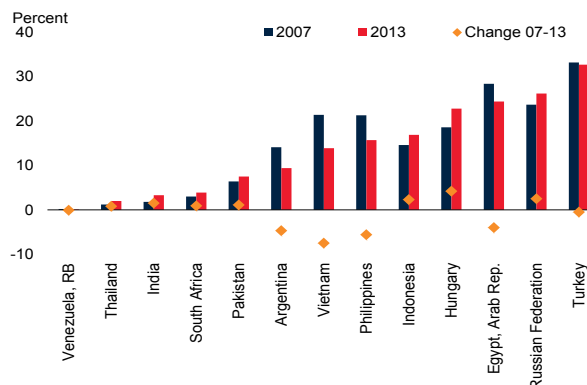
Should risks around the liftoff materialize, emerging markets need to resort to policy measures to alleviate short-term financial stress. These include, most importantly, exchange rate flexibility, targeted measures to ensure market functioning, and measures to restore confidence. Many of these measures appeared to help countries effectively respond to the taper tantrum (World Bank 2014a).<sup>23</sup>

- *Exchange rate flexibility.* In a significant difference to the 1990s, most emerging markets now maintain flexible exchange rate regimes. Allowing exchange rates to adjust will be an important buffer to external shocks in many emerging markets with limited currency mismatches on corporate and household balance sheets and credible macroeconomic policies (Davies et al. 2014).
- *Interest rate increases.* Emerging markets concerned about the balance sheet effects of sizable depreciations may wish to raise monetary policy interest rates to stem depreciations. This has been done, to varying degrees, in past U.S. tightening episodes (Chapter 1). The effectiveness of an interest rate hike in stemming depreciation pressures rests on the credibility of the monetary policy framework (Eichengreen and Rose 2003).
- *Targeted support measures.* If financial stress threatens financial stability, for example because of large foreign currency liabilities, intervention in foreign currency markets through the use of international reserve or swap market operations may be necessary. Liquidity provision in local capital markets may be required to preserve orderly market conditions. The removal of capital inflow restrictions or—as a complement to sound macroeconomic policies, financial supervision and regulation, and strong institutions—the imposition of temporary controls on certain outflows might temper net outflows (IMF 2014d).

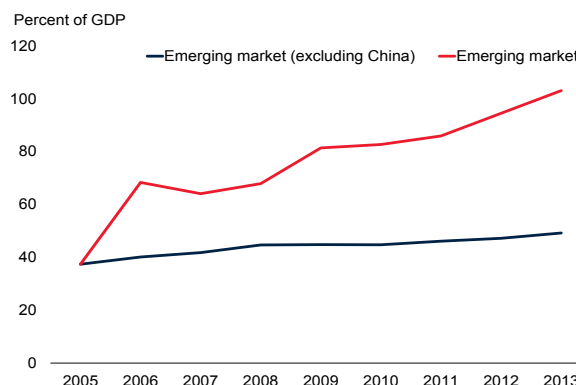
### FIGURE SF1.11 Foreign currency exposure and corporate debt

Foreign currency exposures in a number of emerging markets remain high, rendering them vulnerable to sharp movements in their currencies. Corporate debt has also increased in many countries.

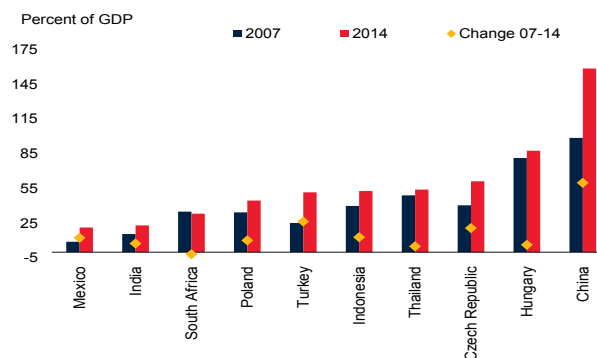
#### A. Foreign currency exposure in emerging markets



#### B. Corporate debt of emerging markets



#### C. Corporate debt of selected emerging markets



Source: Bank for International Settlements, Moody's, World Bank.

A. Foreign currency exposure is measured as the ratio of total foreign currency deposits in the domestic banking system to total deposits in the domestic banking system. Latest available data for 2013.

B. GDP-weighted average. List of emerging markets includes China, Czech Republic, Hungary, India, Indonesia, Mexico, Poland, South Africa, Thailand, and Turkey.

C. The 2007 data of South Africa's corporate debt is not available and thus replaced by 2008Q1 data.

- *Measures to restore confidence.* Reforms to improve the credibility of monetary, fiscal, and regulatory policies through changes in the governance of associated policy institutions may

<sup>23</sup>A rich literature examines policy responses to financial stress and emphasizes various tradeoffs (Frankel and Wei 2004; Claessens et al. 2014; Forbes and Klein 2015).

help convince investors of a commitment to sustainable macroeconomic and financial policies. Credible commitments to structural reforms could enhance investors' perceptions of long-term growth prospects.

International policy coordination could potentially help limit the risks of financial turmoil around liftoff and, if they materialize, help emerging market countries navigate them, and, in turn, avoid spillbacks to advanced countries (Sahay et al. 2014). Policy coordination could range from heightened efforts by advanced country central banks to engage in clear and effective communication to the internalization by central banks of the spillover effects of their policies, although the latter may be difficult to operationalize (Rajan 2014).<sup>24</sup> More broadly speaking, there may be scope for enhanced global and regional safety nets, including through multilateral institutions and regional risk-sharing arrangements, to support emerging markets during periods of financial stress (Carstens 2015).

## Conclusion

As the Fed readies for its first policy rate hike after almost a decade, financial conditions are on the cusp of becoming more challenging for emerging market countries. Most likely, the liftoff will proceed smoothly given that the U.S. recovery appears well entrenched and financial markets are being bolstered by highly accommodative monetary policies in other major advanced countries. If the liftoff takes place in line with market expectations, U.S. long-term yields will likely remain well contained, the term premium will remain narrow, and movements in capital flows to emerging countries will be modest.

However, as evidenced during the taper tantrum episode, there is a risk that if market expectations adjust in a disorderly fashion, financial market volatility could spill over to emerging markets. Specifically, low U.S. term premia, diverging views between markets and Fed policy makers about the future path of interest rates, and chang-

ing conditions in market liquidity all heighten risks to U.S. financial markets. If the risks around the liftoff and subsequent tightening steps materialize, U.S. interest rates could increase sharply. This could in turn lead to greater financial market volatility and could significantly reduce capital flows to emerging market countries.

Emerging markets have become more resilient since the early 2000s: fewer have fixed exchange rates; most have sounder fiscal positions and better monetary policy frameworks; and the extent of liability dollarization has declined (Kose and Prasad 2010; Davies et al. 2014). Nevertheless, the taper tantrum is a reminder that emerging market currencies could depreciate sharply, local borrowing costs rise steeply, and balance sheets come under pressure.

During the taper tantrum episode, a jump in U.S. long-term interest rates led, initially, to financial stress across the entire spectrum of emerging market assets. Over time, differentiation among countries increased based on country-specific vulnerabilities, policies, and growth prospects. Since the episode, growth prospects have weakened and vulnerabilities remain in some emerging market countries, heightening the risks of another similar shock. Unless appropriate policy measures are in place, the sudden realization of risks around the liftoff could potentially spark a "perfect storm" in some emerging market economies, in particular those that need to adjust to the prospects of persistently low commodity prices and tighter financial conditions, or that face domestic policy uncertainty against the backdrop of lingering vulnerabilities and weaker growth.

In anticipation of the risks surrounding the liftoff, emerging market countries should prioritize monetary and fiscal policies that reduce vulnerabilities and strengthen policy credibility, and structural policy agendas that improve growth prospects. In the event that risks materialize, exchange rate flexibility could buffer shocks in some countries but may need to be complemented by monetary policy measures and targeted interventions to support orderly market functioning. International policy coordination could reduce the likelihood that these risks materialize and could alleviate their impact on emerging markets. While emerging economies may hope for the best from the eventual liftoff of the U.S. policy rates, they need to prepare for the worst.

<sup>24</sup>An example of coordination is the introduction of liquidity swap lines by the Fed to other (mostly advanced country) central banks in the 2008–09 global financial crisis (Fischer 2014). Dudley (2014) presents a discussion of the impact of U.S. monetary policies on emerging economies and summary of policy lessons from the taper tantrum.

### BOX SF1.1 Econometric analysis of U.S. yields and spillovers

This box briefly describes the main features of the three econometric models used to analyze the role of monetary and real shocks in explaining movements in U.S. yields, the spillovers of such shocks for emerging markets, and the impact of a sudden increase in U.S. yields on capital flows to emerging market and developing countries.

#### Contribution of monetary and real shocks to U.S. long-term yields

To analyze the drivers of moves in U.S. yields, the first econometric model uses a structural vector autoregression (SVAR) framework with sign restrictions to decompose daily movements in yields during January 2013–March 2015 into two components: one reflecting real U.S. growth shocks and another reflecting U.S. monetary shocks.<sup>a</sup> The SVAR follows a similar approach as Matheson and Stavrev (2014) and the International Monetary Fund (2014b) based on three U.S. variables: long-term interest rates, stock prices, and the nominal effective exchange rate.<sup>b</sup> For reasons of data availability, other economic data (e.g. inflation expectations) that may also be important drivers of the long-term interest rate are excluded from the model. The sign restrictions assume that an adverse “monetary” shock (such as an unexpected real or perceived policy tightening) increases yields and reduces stock prices in the United States, while a favorable “real” shock (such as reflecting better growth prospects) increases both yields and stock prices.<sup>c</sup> The shocks identified using these restrictions naturally reflect market perceptions of monetary policy and growth.

#### Spillovers from U.S. monetary and real shocks to activity and financial markets

To assess the spillovers from the shocks driving U.S. yields on emerging markets, a panel VAR model is estimated for emerging market country variables, with monetary and real shocks (estimated as in the above

model) as exogenous regressors. The panel VAR includes six variables for emerging markets: long-term bond yields, stock prices, nominal effective exchange rates, bilateral exchange rate with the dollar, industrial production, and inflation. The list of countries is: Argentina, Brazil, Chile, Colombia, the Czech Republic, Israel, Mexico, Poland, South Africa, Turkey, India, Indonesia, the Russian Federation, China, the Republic of Korea, Malaysia, the Philippines, Saudi Arabia, and Thailand.<sup>d</sup> All data are monthly or monthly averages of daily data for January 2013–March 2015. Spillovers are then evaluated by tracing out the impulse responses of these variables due to adverse monetary U.S. shocks and favorable U.S. real shocks. The size of the U.S. shocks is normalized such that developing-country bond yields increase by 100 basis points on impact.

#### Spillovers from U.S. financial conditions to capital flows

The effects of moves in U.S. yields on aggregate capital inflows to emerging markets and developing countries are modeled using a VAR model, based on Lim, Mohapatra, and Stocker (2014). This model links quarterly aggregate capital inflows (including foreign direct investment, portfolio investment, and other investment) to 86 emerging and developing countries (from BPM6 balance of payment data, expressed in percent of gross domestic product [GDP]) to real GDP growth in both emerging market and developing countries and G-4 countries (the United States, the Euro Area, Japan, and the United Kingdom), G-4 short-term interest rates (GDP-weighted average of three month money market rates for G-4 countries), G-4 long-term interest rates (GDP-weighted average of 10-year government bond yields for G-4 countries), and the VIX index of implied volatility of S&P 500 options. This captures the response of capital flows to external shocks, and their propagation through global uncertainty and growth effects. The feedback between global interest rates and investors’ risk appetite is captured by incorporating in the model the VIX index of implied stock market volatility, which is often used as proxy of risk aversion and deleveraging pressures (Adrian and Shin 2010 and 2012), with significant repercussions for capital flows to

<sup>a</sup>Daily (rather than monthly) data is used to ensure that U.S. shocks, in particular monetary shocks that reflect Fed announcements, and their near immediate effects on stock prices are well identified.

<sup>b</sup>The nominal effective exchange rate is added on technical grounds, to ensure that the two identified shocks are orthogonal while also ensuring that the sign restrictions are satisfied. The results are broadly in line with Matheson and Stavrev (2014) who leave out a third variable.

<sup>c</sup>Sign restrictions are imposed on stock prices and yields. Responses of exchange rates are unrestricted and turn out to be statistically insignificant.

<sup>d</sup>To avoid spurious results, the sample is restricted to large emerging markets that are highly integrated into global financial markets.

**BOX SF1.1 (continued)**

developing countries (Rey 2013; Bruno and Shin 2013; Forbes and Warnock 2012).

To compute impulse responses, the covariance matrix is derived from a Cholesky decomposition. The Cholesky decomposition is based on the following order of variables (from least to most “endogenous”): G-4 GDP growth, emerging markets’ GDP growth, G-4 short-term rates, G-4 long-term rates, VIX, and capital inflows to emerging markets. Overall, the impact of a 25 basis-points (one standard deviation) shock in long-term interest rate across G-4 economies is estimated to reduce aggregate capital flows to emerging and developing countries by 0.45 percent of their combined GDP (10 percent drop in flows), with the effect peaking after 4

quarters and remaining significant at a 90 percent confidence interval up to 6 quarters.

For robustness, a similar VAR model was computed for portfolio flows (balance of payment data), with the impact of an interest rate shock estimated to be of similar magnitude, but peaking earlier and with wider confidence intervals given greater volatility in quarterly portfolio flows. A 100 basis-point shock to the U.S. term spread is applied to the model, assuming a range of pass-through effects on Euro Area, U.K., and Japanese long-term yields (from zero to 100 percent). In the median case, global bond yields increase by 70 basis points on impact, roughly comparable to the pass-through rate observed during the taper tantrum.

**TABLE SF1.1 Studies on the effects of sudden stops**

Authors	Country/data	Methodology	Objectives and results
Becker and Mauro (2006)	167 countries/annual, 1970–2001	Event study; multivariate probit	<p><i>“Expected” output cost of sudden stops, based on conditional and unconditional probability of sudden stop.</i></p> <ul style="list-style-type: none"> <li>• Cost of sudden stops on median output growth is 1.5% per year for emerging markets.</li> <li>• Cost of sudden stops are not significant for developing economies</li> </ul>
Bordo, Cavallo and Meissner (2010)	20 emerging markets/annual, 1880–1913	Panel treatment regression	<p><i>Impact of sudden stops on trend growth and output gap.</i></p> <ul style="list-style-type: none"> <li>• Sudden stops associated with financial crises widen the output gap, but not trend growth. Growth appears to resume quickly.</li> <li>• Sudden stops not accompanied by financial crises reduce trend growth.</li> </ul>
Calderón and Kubota (2013)	99 countries/quarterly, 1975–2010	Event study	<p>Probability of inflow- versus outflow-driven sudden stops and their effects on output and credit.</p> <ul style="list-style-type: none"> <li>• Negative effects of capital outflows-driven shocks are less than those of inflows-driven shocks.</li> </ul>
Calvo, Izquierdo and Mejía (2004)	32 developed and emerging economies/quarterly and annual, 1990–2001	Event study; panel probit	<p><i>Effects of current account reversals on growth and real exchange rate.</i></p> <ul style="list-style-type: none"> <li>• Sudden stops in emerging markets are accompanied by large real exchange rate devaluations.</li> <li>• However, the same is not the case in developed countries.</li> </ul>
Calvo, Izquierdo and Mejía (2008)	110 countries/annual, 1990–2004	Event study; probit panel regressions	<p><i>Characteristics and probability of systemic sudden stops.</i></p> <ul style="list-style-type: none"> <li>• They are accompanied by large real exchange rate fluctuations.</li> <li>• They occur in different countries at the same time, suggesting external shocks as causes.</li> <li>• High leverage of tradables absorption and high domestic liability dollarization increases the probability of these events.</li> </ul>
Calvo and Reinhart (2000)	Non-empirical policy analysis	Case study; event study	<p><i>Effects of sudden stops in real economy and policy analysis.</i></p> <ul style="list-style-type: none"> <li>• Sudden stops cause output losses and real exchange rate devaluation via (a) drop in aggregate demand due to nominal rigidities (Keynesian channel), and (b) an increase in non-performing loans due to decrease in the relative price of non-tradables and a surge in ex-post interest rate faced by domestic producers (Fisherian channel).</li> <li>• (Partial) dollarization and higher short-term flows increase costs by increasing non-performing loans.</li> <li>• Sudden stops likely trigger banking crises (but not necessarily currency crises).</li> <li>• Flexible exchange rates help by avoiding compression in non-tradables prices.</li> <li>• Full dollarization recommended by authors.</li> </ul>
Caner, Koehler-Geib and Vincelette (2009)	43 developed and developing countries/annual, 1993–2006s	Panel regression	<p><i>Effect of sudden stops on GDP growth.</i></p> <ul style="list-style-type: none"> <li>• Following sudden stops, GDP growth falls by 4-5 percent.</li> </ul>
Catao (2007)	16 countries/annual, 1870–1913	Case study; event study; panel regressions	<p><i>Link between sudden stops and currency crashes.</i></p> <ul style="list-style-type: none"> <li>• Not all sudden stops triggered depreciations or currency crises.</li> <li>• Interesting results because of the time period, during which countries in sample were pegged to gold and international spreads were much lower than in the past few decades.</li> <li>• Currency crashes were likely not the result of external factors but domestic frictions, like lobbying linked to the export sector.</li> </ul>
Cavallo et al. (2015)	63 developing and developed countries/quarterly, 1980–2012	Event-based, time series regression; pooled regression	<p><i>Changes in GDP and real effective exchange rates in the 10 quarters before and after sudden stop.</i></p> <ul style="list-style-type: none"> <li>• Differentiation between sudden stops in net inflows, gross inflows, gross outflows, and combinations.</li> <li>• Sudden stops in net flows that coincide with sharp reductions in gross inflows are associated with larger drops in output compared to those that coincide with sharp declines in gross outflows.</li> <li>• The effects of sudden stops on real exchange rates are not robust.</li> </ul>



**TABLE SF1.1 Studies on the effects of sudden stops (continued)**

Authors	Country/data	Methodology	Objectives and results
Cowan and Raddatz (2013)	45 developed and developing countries/annual, 1975–2003	Panel (cross-industry, cross-country) regression	<p><i>Impact of sudden stops on industrial production.</i></p> <ul style="list-style-type: none"> <li>• For average industry, industrial production declines 5%.</li> <li>• Production in industries that depend on external finance declines by more, especially in less developed economies.</li> <li>• Contractions are larger in industries with small comparative advantage.</li> <li>• The contraction after sudden stops is largest for industries that produce durable goods, especially in less financially-developed countries. This suggests that financial frictions due to sudden stops affect the observed cyclical behavior of durable goods.</li> <li>• High international reserves reduce production contractions.</li> <li>• Expansionary monetary policy dampens the impact of sudden stops in industry production in emerging and less financially-developed economies.</li> </ul>
Edwards (2004)	157 countries/annual, 1970–2001	Simultaneous regression	<p><i>Probability of current account reversal and effects of current account reversal on growth.</i></p> <ul style="list-style-type: none"> <li>• Current account reversals are closely related to sudden stops.</li> <li>• Current reversals reduce GDP growth by 1.8–5.1%.</li> <li>• Effects depend on trade openness and exchange rate regime.</li> </ul>
Gallego and Tessada (2012)	Brazil, Chile, Colombia, Mexico/annual, 1978–2001	Panel (cross-sector, cross-country) regression	<p><i>Impact of sudden stops on job creation and destruction.</i></p> <ul style="list-style-type: none"> <li>• After sudden stops, job creation tends to decrease more in sectors dependent on external finance.</li> <li>• After sudden stops, job destruction is higher in sectors with greater liquidity needs.</li> </ul>
Guidotti, Sturzenegger and Villar (2004)	122 countries/annual, 1974–2002	Event study	<p><i>Impact of sudden stops on GDP deviation from trend depending on current account adjustment.</i></p> <ul style="list-style-type: none"> <li>• Current account adjustment of more than 2 percentage points of GDP is associated with GDP falling 1.8% below trend.</li> <li>• Current account adjustment of less than 2 percentage points of GDP is associated with GDP falling 0.8% below trend</li> </ul>
Hutchison and Noy (2006)	24 emerging markets/annual, 1975–1997	Panel regression	<p><i>Investigates the effect of crises/sudden stops on GDP growth.</i></p> <ul style="list-style-type: none"> <li>• It includes currency and sudden stop dummies on growth regressions.</li> <li>• Sudden stops are associated with 6–8% decrease in GDP growth.</li> <li>• The effects are short-lived and disappear after the second year.</li> </ul>
Hutchison, Noy, and Wang (2010)	66 emerging developing economies/annual, 1980–2003	Panel regression	<p><i>Output costs of sudden stops depending on monetary and fiscal policy.</i></p> <ul style="list-style-type: none"> <li>• Monetary and fiscal policy tightening during sudden stops exacerbates output losses (deviation of output from trend).</li> <li>• Discretionary fiscal policy is associated with lower output costs (deviation in output from trend), whereas expansionary monetary policy has no effect.</li> </ul>
Ortiz et al. (2009)	31 emerging markets/quarterly, 1990–2006	Event study; cross-country regression	<p><i>Costs of systemic sudden stops and fiscal/monetary policy</i></p> <ul style="list-style-type: none"> <li>• Output falls 7.2% on average from peak to trough.</li> <li>• Significant variation in output change across country-episodes (lowest: –20%; highest: +6.6%) and fiscal and monetary response.</li> <li>• Countries that tightened monetary and fiscal policy during sudden stops experience larger contractions in output.</li> </ul>
Rothenberg and Warnock (2011)	24 Emerging Markets/quarterly, 1989–2005	Event study	<p><i>Impact of sudden stop on GDP growth and its components and quarter-on-quarter exchange rate movements against the U.S. dollar.</i></p> <ul style="list-style-type: none"> <li>• After a “true sudden stop” (drop in inflows is greater than drop in outflows), GDP growth falls sharply (even below zero in a couple of quarters); the exchange rate depreciates as much as 40%.</li> <li>• After a “sudden flight” (drop in outflows greater than drop in inflows), GDP growth falls (from 5-6% to 2-3%) but does not fall below zero; the exchange rate depreciates around 10%.</li> <li>• Investment and, to a lesser degree, imports are the most affected components of GDP.</li> </ul>
Zhao et al. (2014)	85 countries/annual, 1980–2012	Event study; logit regressions	<p><i>Impact of sudden stops on probability of currency crises.</i></p> <ul style="list-style-type: none"> <li>• Low trade openness, shallow financial markets and current account imbalances increase the probability that sudden stops will be followed by currency crises.</li> </ul>



**TABLE SF1.2 Studies on the implications of the taper tantrum**

Authors	Country/data	Methodology	Objectives and results
Avdjiev and Takáts (2014)	Both industrial countries and emerging countries/quarterly	Linear regression: event study	<p><i>Drivers of cross-sectional variation in the slowdown of cross-border bank lending during the taper tantrum.</i></p> <ul style="list-style-type: none"> <li>• The slowdown of cross-border bank lending during the taper tantrum depended on both the lender's banking system and the conditions of borrower emerging markets.</li> <li>• A rising credit default swap (CDS) spread in lender's banking system during the taper tantrum is associated with a more pronounced slowdown in cross-border bank lending.</li> <li>• A higher current account balance of a borrower emerging market is associated with a milder slowdown in cross-border bank lending during the tapering.</li> <li>• A higher share of cross-border bank lending denominated in U.S. dollars is associated with a more pronounced slowdown in cross-border bank lending.</li> </ul>
Aizenman, Binici, and Hutchison (2014)	Emerging markets/daily	Panel regression	<p><i>Impact of announcements by senior Fed officials on financial markets in emerging economies.</i></p> <ul style="list-style-type: none"> <li>• Emerging market asset prices respond most to statements from Fed Chairman Bernanke and much less to statements from other Fed officials.</li> <li>• Exchange rates (and, to a lesser extent, equity prices and CDS spreads) of a group of countries with solid macro fundamentals were initially more adversely affected by taper talk than those in the fragile group. This reflected greater financial market development.</li> <li>• However, the cumulative effects of taper talk after a month appear to be quite similar for both robust and fragile emerging markets.</li> <li>• More financially developed emerging economies (according to a classification based on the 2012 value of the World Economic Forum's Financial Development Index, which considers factors related to financial development, intermediation, and access to financial services) were more impacted by taper talk. A plausible interpretation is that more financially developed economies are more exposed, at least in the short term, to external news announcements.</li> </ul>
Basu, Eichengreen, and Gupta (2014)	India/daily, weekly, and monthly	Case study; linear regression	<p><i>Response of Indian financial markets to taper talk.</i></p> <ul style="list-style-type: none"> <li>• India was adversely impacted because it had received large capital flows in prior years and had large and liquid financial markets that were a convenient target for investors seeking to rebalance away from emerging markets.</li> <li>• India's macroeconomic conditions had weakened in prior years, which rendered the economy vulnerable to capital outflows and limited the policy room for maneuver.</li> <li>• These results suggest putting in place a medium-term policy framework that limits vulnerabilities in advance, while maximizing the policy space for responding to shocks. Elements of such a framework include a sound fiscal balance, sustainable current account deficit, and environment conducive to investment.</li> <li>• India should also continue to encourage stable longer-term capital flows and discourage volatile short-term flows, hold a larger stock of reserves, avoid excessive appreciation of the exchange rate through interventions with the use of reserves and macro prudential policy, and prepare banks and firms to handle greater exchange rate volatility.</li> </ul>
Dahlhaus and Vasishtha (2014)	23 emerging countries/weekly and monthly	Vector auto-regression (VAR)	<p><i>Impact of U.S. monetary policy normalization on portfolio flows to major emerging market economies.</i></p> <ul style="list-style-type: none"> <li>• A shock corresponding to an increase in spreads of 120 basis points (bps) is associated with a decline in aggregate capital flows to GDP by 0.5% on impact.</li> <li>• The cumulative effect of a policy normalization shock (an increase of 120 bps) on aggregate capital flows is -1.24 percent of GDP after 3 months.</li> <li>• The cumulative effect of a policy normalization shock (an increase of 120 bps) on aggregate capital flows is -1.83 percent of GDP after one year.</li> </ul>

**TABLE SF1.2 Studies on the implications of the taper tantrum (continued)**

Authors	Country/data	Methodology	Objectives and results
Diez (2014)	49 emerging countries/ monthly	Case study; cross-country regression analysis	<i>Emerging markets' financial market responses to taper talk versus actual tapering.</i> <ul style="list-style-type: none"> <li>Emerging markets generally experienced a significantly larger depreciation in nominal exchange rates during the taper talk period in the summer of 2013 than during the actual beginning of the taper period from December 2013 to January 2014. The average depreciation was 3% during the taper talk period, and 1.5% during the beginning of the actual taper period. Moreover, among those countries that experienced noticeable depreciation, the averages were 6.6 % during the taper talk period and 3% during the actual taper period.</li> <li>Current account deficits and real exchange rate appreciation were key factors in explaining the observed cross-country differences in adjustment across the various emerging markets.</li> <li>For seven emerging markets—Brazil, China, India, Indonesia, Russia, South Africa, and Turkey—12 variables are examined for early warning signals of a potential crisis period, defined as a sharp drop in the country's exchange rate and/or a sharp drop in its international reserves. No strong evidence predicting a crisis in the near future is reported.</li> </ul>
Eichengreen and Gupta (2014)	53 emerging countries/ monthly	Cross-country linear regression	<i>Which countries were most affected by the taper talk and why.</i> <ul style="list-style-type: none"> <li>Emerging markets that experienced real exchange rate appreciation and widening current account deficits during the prior period of quantitative easing saw the sharpest impact.</li> <li>A more important determinant of the differential impact was the size of country's financial market: countries with larger financial markets experienced more pressure on the exchange rate, foreign reserves, and equity prices. This is interpreted as showing that investors are better able to rebalance their portfolios when the target country has a relatively large and liquid financial market.</li> </ul>
García-Luna and van Rixtel (2013)	Emerging countries/ quarterly	Case study; descriptive statistics	<i>Impact of taper talk on cross-border credit for emerging markets.</i> <ul style="list-style-type: none"> <li>Cross-border credit to a large number of emerging market economies with sizable U.S. dollar-denominated liabilities fell in the second quarter of 2013.</li> <li>Latin American countries were most affected. The drop was largest for Brazil (with a ratio of U.S. dollar liabilities to exports of 99%), but was also quite sharp for Chile (50%), Mexico (20%), and Peru (50%).</li> <li>In other regions, cross-border credit to India and Russian Federation contracted as well. In contrast, cross-border credit to Turkey and several emerging Asian economies increased, most notably to Taiwan, China, and Indonesia.</li> </ul>
Lavigne, Sarker, and Vasishtha (2014)	Emerging markets/weekly and quarterly	Case study; descriptive statistics	Impact of measures related to U.S. quantitative easing (including taper talk) on capital flows. <ul style="list-style-type: none"> <li>Taper talk in 2013 had a disruptive impact on capital flows to emerging markets; however, after the initial impact subsided, there is some evidence that markets discriminated among countries according to fundamentals.</li> </ul>
Lim, Mohapatra, and Stocker (2014)	60 developing countries/ quarterly	Vector autoregression (VAR)	<i>Gross financial inflows to developing countries between 2000 and 2013, with a particular focus on the potential effects of quantitative easing policies.</i> <ul style="list-style-type: none"> <li>In a scenario of normalization of unconventional monetary policy over the course of 2014–16, simulation results show that capital flows to developing countries could contract by 0.6 percentage point of GDP by the end of 2016.</li> </ul>
Meinusch and Tillmann (2015)	United States/ daily (from Twitter)	Vector autoregression (VAR)	<i>Extent to which changing expectations about the timing of the exit from quantitative easing impact asset prices.</i> <ul style="list-style-type: none"> <li>Shocks to expectations of tapering affect interest rates, exchange rates, and asset prices.</li> <li>Given a positive shock to expectations of early tapering (proxied by a 5% increase of Twitter users foreseeing an early tapering), the long-term interest rate rises 3 bps at impact and peaks at 4 bps after 6 days.</li> </ul>
Mishra et al. (2014)	21 emerging markets/daily	Linear regression, event study.	<i>Market reaction to taper talk and its relationship to economic fundamentals and financial structures.</i> <ul style="list-style-type: none"> <li>Countries with stronger economic fundamentals, deeper financial markets, and a tighter macro prudential policy stance in the run-up to the tapering announcements experienced smaller currency depreciations and smaller increases in government bond yields.</li> <li>There was less cross-country differentiation in the response of stock markets based on fundamentals.</li> </ul>

**TABLE SF1.2 Studies on the implications of the taper tantrum (continued)**

Authors	Country/data	Methodology	Objectives and results
Park and Um (2015)	Korea, Rep./daily	High-frequency event-study approach	<p><i>Effect of U.S. unconventional monetary policy (including tapering) on Korean bond markets.</i></p> <ul style="list-style-type: none"> <li>• One-day increase of U.S. Treasury yields after the taper announcement were 9 bps for 5-year treasury yields and 6.7 bps for 20-year treasury yields.</li> <li>• Taper talk had no statistically significant impact on the Korea, Rep. bond yields.</li> <li>• Taper talk triggered capital outflows from Korea, Rep. For example, taper talk reduced Korea, Rep.'s foreign net investment by \$193 million.</li> </ul>
Rai and Suchanek (2014)	19 emerging countries/ two-day window around Fed announcement dates	Case study; linear regression	<p><i>Impact of taper talk on financial markets and capital flows for 19 emerging markets.</i></p> <ul style="list-style-type: none"> <li>• Emerging markets with strong fundamentals (e.g., stronger growth and current account position, lower debt, and higher growth in business confidence and productivity), experienced more favorable responses to Fed communications on tapering.</li> <li>• Initially, countries with less capital account openness experienced more favorable responses to tapering, but this result diminished in subsequent tapering announcements.</li> </ul>
Sahay et al. (2014)	Emerging markets/daily, monthly, and quarterly	Case study; descriptive statistics	<p><i>Policy lessons from taper talk</i></p> <ul style="list-style-type: none"> <li>• The Fed's monetary policy announcements were strongly correlated with movements in asset prices and capital inflows in emerging markets, with the effects being largest during the phase of unconventional monetary policy (post-2008) and when tapering was first discussed.</li> <li>• On impact, asset prices and capital flows were hit indiscriminately across countries, but over time there was greater differentiation among emerging markets.</li> <li>• Good macroeconomic fundamentals helped dampen market reactions to U.S. monetary policy shocks. Elevated current account deficits, high inflation, weak growth prospects, and relatively low reserves were important factors affecting market reaction.</li> <li>• Where vulnerabilities existed, emerging markets that acted early and decisively generally fared better.</li> <li>• Clear and effective communication by advanced-economy central banks concerning exit from unconventional monetary support is important to reduce the risk of excessive market volatility. The international community has an important role to play to safeguard global financial stability, such as efforts to cooperate with regional financial arrangements, enhance cross-border cooperation between central banks and regulators, and establish stronger global financial safety net, including through adequate IMF resources.</li> </ul>

## References

- Aaronson, S., T. Cajner, B. Fallick, F. Galbis-Reig, C. Smith, and W. Wascher. 2014. "Labor Force Participation: Recent Developments and Future Prospects." *Brookings Papers on Economic Activity*. Brookings Institution, Washington, DC.
- Abrahams, M., T. Adrian, R. K. Crump, and E. Moench. 2015. "Decomposing Real and Nominal Yield Curves." Federal Reserve Bank of New York, Staff Reports, No. 570.
- Adler, G., M.-L. Djigbenou, and S. Sosa. 2014. "Global Financial Shocks and Foreign Asset Repatriation: Do Local Investors Play a Stabilizing Role?" IMF Working Paper 14/60. International Monetary Fund, Washington, DC.
- Adrian, T., R. Crump, and E. Moench. 2013a. "Do Treasury Term Premia Rise around Monetary Tightenings?" *Liberty Street Economics* (blog), April 15. <http://libertystreeteconomics.newyorkfed.org/>.
- \_\_\_\_\_. 2013b. "Pricing the Term Structure with Linear Regressions." *Journal of Financial Economics* 110 (1): 110–38.
- Adrian, T., M. Fleming, J. Goldberg, M. Lewis, F. Natalucci, and J. Wu. 2013. "Dealer Balance Sheet Capacity and Market Liquidity during the 2013 Selloff in Fixed-Income Markets." *Liberty Street Economics* (blog), October 16. <http://libertystreeteconomics.newyorkfed.org/>.
- Adrian, T., and H. S. Shin. 2010. "Liquidity and Leverage." *Journal of Financial Intermediation* 19: 418–37.

- \_\_\_\_\_. 2011. "Financial Intermediaries and Monetary Economics." In Vol. 3 of *Handbook of Monetary Economics*, 601–50. San Diego, CA: Elsevier.
- \_\_\_\_\_. 2012. "Pro-cyclical Leverage and Value-at-Risk." Federal Reserve Bank of New York Staff Reports, No. 338.
- Ahmed, S. and A. Zlate. 2013. "Capital Flows to Emerging Market Economies: A Brave New World?" International Finance Discussion Papers 1081, Board of Governors of the Federal Reserve System, Washington, DC.
- Aizenman, J., M. Binici, and M. M. Hutchison. 2014. "The Transmission of Federal Reserve Tapering News to Emerging Financial Markets." NBER Working Paper No. 19980, National Bureau of Economic Research, Cambridge, MA.
- Avdijev, S., and E. Takáts. 2014. "Cross-Border Bank Lending During the Taper Tantrum: The Role of Emerging Market Fundamentals." *BIS Quarterly Review* (September): 49–60.
- Bank of England and the Procyclicality Working Group. 2014. "Procyclicality and Structural Trends in Investment Allocation by Insurance Companies and Pension Funds." Bank of England and Procyclicality Working Group Discussion Paper. London.
- Basu, K., B. Eichengreen, and P. Gupta. 2014. "From Tapering to Tightening: The Impact of the Fed's Exit on India." Policy Research Working Paper 7071, World Bank, Washington, DC.
- Becker, T. I., and P. Mauro. 2006. "Output Drops and the Shocks That Matter." Working Paper 06/172, International Monetary Fund, Washington, DC.
- Bernanke, B. 2013a. "Long-Term Interest Rates." Speech at the Annual Monetary/ Macroeconomics Conference, "The Past and Future of Monetary Policy," sponsored by the Federal Reserve Bank of San Francisco, San Francisco, March 1.
- \_\_\_\_\_. 2013b. Comments after "The Economic Outlook," testimony before the Joint Economic Committee, U.S. Congress, Washington, DC, May 22. <http://www.gpo.gov/fdsys/pkg/CHRG-113shrg81472/pdf/CHRG-113shrg81472.pdf>.
- \_\_\_\_\_. 2015. "Why Are Interest Rates so Low, Part 4: Term Premiums?" *Ben Bernanke's Blog*. <http://www.brookings.edu/blogs/ben-bernanke>.
- Blanchard, O., D. Furceri, and A. Pescatori. 2014. "A Prolonged Period of Low Real Interest Rates?" In *Secular Stagnation: Facts, Causes and Cures*, edited by Coen Teulings and Richard Baldwin. London: Centre for Economic Policy Research.
- Bluedorn, J. C., R. Duttagupta, J. Guajardo, and P. Topalova. 2013. "Capital Flows Are Fickle: Anytime, Anywhere." IMF Working Paper No. 13/183, International Monetary Fund, Washington, DC.
- Blume, M. E., and D. B. Keim. 2012. "Institutional Investors and Stock Market Liquidity: Trends and Relationships." Working Paper, the Wharton School, University of Pennsylvania, Philadelphia.
- Bordo, M. D., A. F. Cavallo, and C. F. Meissner. 2010. "Sudden Stops: Determinants and Output Effects in the First Era of Globalization, 1880–1913." *Journal of Development Economics* 91 (2): 227–41.
- Borio, C. 2014. "The International Monetary and Financial System: Its Achilles Heel and What to Do about It." BIS Working Papers No. 456, Bank for International Settlements, Basel.
- Borio, C., and H. Zhu. 2012. "Capital Regulation, Risk-taking and Monetary Policy: A Missing Link in the Transmission Mechanism?" *Journal of Financial Stability* 8(1): 236–51.
- Bruno, V., and H. S. Shin. 2013. "Capital Flows, Cross-Border Banking and Global Liquidity." NBER Working Paper No. 19038, National Bureau of Economic Research, Cambridge, MA.
- \_\_\_\_\_. 2015. "Capital Flows and the Risk-Taking Channel of Monetary Policy." *Journal of Monetary Economics* 71 (1): 119–32.
- Caballero, R. J., and E. Farhi. 2014. "On the Role of Safe Asset Shortages in Secular Stagnation." In *Secular Stagnation: Facts, Causes and Cures*, edited by Coen Teulings and Richard Baldwin. London: Centre for Economic Policy Research.
- Calderón, C., and M. Kubota. 2013. "Sudden Stops: Are Global and Local Investors Alike?" *Journal of International Economics* 89 (1): 122–42.
- Calvo, G., A. Izquierdo, and L. F. Mejía. 2004. "On the Empirics of Sudden Stops: the Relevance of Balance-sheet Effects." NBER Working Paper No. 10520, National Bureau of Economic Research, Cambridge, MA.

- \_\_\_\_\_. 2008. "Systemic Sudden Stops: The Relevance of Balance-Sheet Effects And Financial Integration." NBER Working Paper No. 14026, National Bureau of Economic Research, Cambridge, MA.
- Calvo, G. A., A. Izquierdo, and E. Talvi. 2006. "Sudden Stops and Phoenix Miracles in Emerging Markets." *American Economic Review* 96 (2): 405–10.
- Calvo, S., and C. Reinhart. 1996. "Capital Flows to Latin America: Is There Evidence of Contagion Effects?" Policy Research Working Paper 1619, World Bank, Washington, DC.
- \_\_\_\_\_. 2000. "When Capital Inflows Come to a Sudden Stop: Consequences and Policy Options." In *Reforming the International Monetary and Financial System*, edited by P. Kenen and A. Swoboda. Washington, DC: International Monetary Fund.
- Caner, M., F. Koehler-Geib, and G. A. Vincelette. 2009. "When Do Sudden Stops Really Hurt?" Policy Research Working Paper 5021, World Bank, Washington, DC.
- Cardarelli, R., S. Elekdag, and M. A. Kose. 2010. "Capital Inflows: Macroeconomic Implications and Policy Responses." *Economic Systems* 34 (4): 333–56.
- Carstens, A. 2015. "Challenges for Emerging Economies in the Face of Unconventional Monetary Policies in Advanced Economies." Stavros Niarchos Foundation Lecture, Peterson Institute for International Economics, April 20.
- Catao, L. A. V. 2007. "Sudden Stops and Currency Drops: A Historical Look." In *The Decline of Latin American Economies: Growth, Institutions and Crises*, edited by Sebastian Edwards, Gerardo Esquivel, and Graciela Marquez. Chicago: University of Chicago Press.
- Cavallo, E., A. Powell, M. Pedemonte, and P. Tavella. 2015. "A New Taxonomy of Sudden Stops: Which Sudden Stops should Countries be Most Concerned About?" *Journal of International Money and Finance* 51: 47-70.
- Claessens, S., and M. A. Kose. 2014. "Financial Crises: Explanations, Types and Implications." In *Financial Crises: Causes, Consequences, and Policy Responses*, edited by S. Claessens, M. A. Kose, L. Laeven, and F. Valencia, 3-60. Washington, DC: International Monetary Fund.
- Claessens, S., M. A. Kose, L. Laeven, and F. Valencia. 2014. *Financial Crises: Causes, Consequences, and Policy Responses*. Washington, DC: International Monetary Fund.
- Collyns, C., and R. Koepke. 2015. "Which EMs Would Suffer from a Risk Shock?" Memo, Institute of International Finance, Washington, DC.
- Committee on the Global Financial System. 2014. "Market-Making and Proprietary Trading: Industry Trends, Drivers and Policy Implications." CGFS Papers No 52, Bank for International Settlements, Basel.
- Council of Economic Advisers. 2014. "The Labor Force Participation Rate since 2007: Causes and Policy Implications." Council of Economic Advisers, Washington, DC.
- Cowan, K., and C. Raddatz. 2013. "Sudden Stops and Financial Frictions: Evidence from Industry-Level Data." *Journal of International Money Finance* 32: 99-128.
- Craighead, W. D., and D. R. Hinline. 2013. "Current Account Reversals and Structural Change in Developing and Industrialized Countries." Wesleyan Economics Working Papers 2013-001, Wesleyan University Department of Economics, Middleton, CT.
- Dahlhaus, T., and G. Vasishtha. 2014. "The Impact of U.S. Monetary Policy Normalization of Capital Flows to Emerging-Market Economies." Working Paper 2014-53, Bank of Canada, Ottawa.
- Davies, G., M. Obstfeld, A. M. Taylor, and D. Wilson. 2014. "Will Emerging Market Jitters Morph into a Crisis?" Fulcrum Research Paper. [https://www.fulcrumasset.com/assets/2/1608\\_document.pdf?1398878033](https://www.fulcrumasset.com/assets/2/1608_document.pdf?1398878033).
- Dell’Ariccia, G., L. Laeven, and R. Marquez. 2013. "Monetary Policy, Leverage, and Bank Risk-Taking." *Journal of Economic Theory*, forthcoming.
- Diebold, F. X., and Yilmaz, K. 2015. *Financial Connectedness: A Network Approach to Measurement and Monitoring*. Oxford, U.K.: Oxford University Press.
- Díez, F. J. 2014. "The Emerging Market Economies in Times of Taper-Talk and Actual Tapering." Current Policy Perspectives No. 14-6, Federal Reserve Bank of Boston.

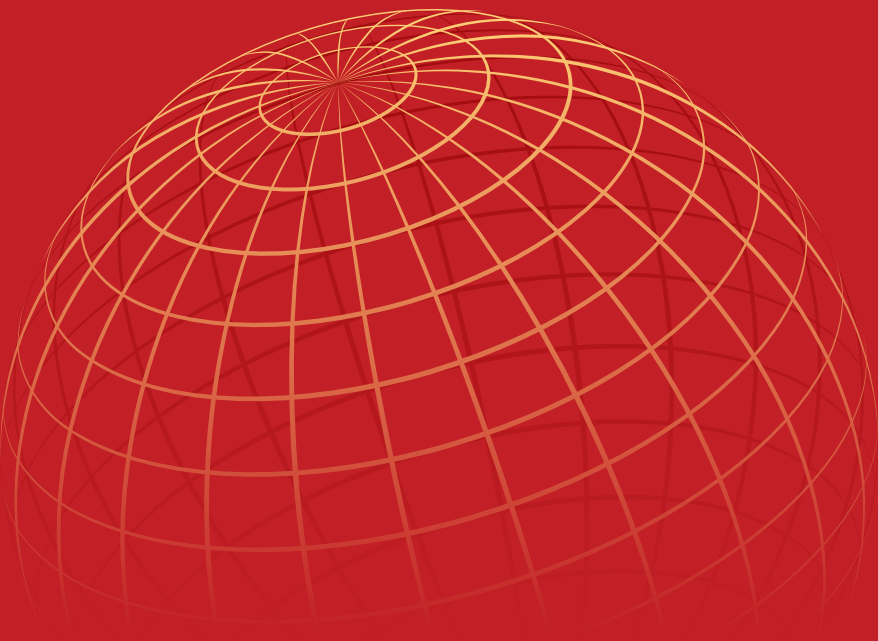


- Dudley, W. 2014. "U.S. Monetary Policy and Emerging Market Economies." Speech at the Roundtable Discussion in Honor of Terrence Checki, "Three Decades of Crises: What Have We Learned?" Federal Reserve Bank of New York, New York, March 27.
- Edwards, S., 2004. "Thirty Years of Current Account Imbalances, Current Account Reversals and Sudden Stops." IMF Staff Papers 51(0): 1-49. International Monetary Fund, Washington, DC.
- Eichengreen, B., and P. Gupta. 2014. "Tapering Talk: The Impact of Expectations of Reduced Federal Reserve Security Purchases on Emerging Markets." Policy Research Working Paper 6754. World Bank, Washington, DC.
- Eichengreen, B., and A. Rose. 2003. "Does It Pay to Defend against a Speculative Attack?" In *Managing Currency Crises in Emerging Markets*, edited by M. Dooley and J. Frankel. Chicago: University of Chicago Press.
- Escolano, J., C. Kolerus, and C. L. Ngouana. "Global Monetary Tightening: Emerging Markets Debt Dynamics and Fiscal Crises." IMF Working Paper No. 14/215, International Monetary Fund, Washington, DC.
- Fender, I., and U. Lewrick. 2015. "Shifting Tides – Market Liquidity and Market-Making in Fixed Income Instruments." *BIS Quarterly Review* (March): 97–109.
- Fernald, J. and B. Wang. 2015. "The Recent Rise and Fall of Rapid Productivity Growth." Economic Letter 2015-04, Federal Reserve Bank of San Francisco.
- Fischer, S. 2014. "The Federal Reserve and the Global Economy." Speech at the 2014 Annual Meetings of the International Monetary Fund and the World Bank Group, Washington, DC. October 11.
- \_\_\_\_\_. 2015. "The Federal Reserve and the Global Economy." Speech at the conference held in honor of Professor Haim Ben-Shahar, former president of Tel Aviv University, Tel Aviv University, Tel Aviv, Israel, May 26.
- Forbes, K. J., and M. W. Klein. 2015. "Pick Your Poison: The Choices and Consequences of Policy Responses to Crises." *IMF Economic Review* 63: 197-237.
- Forbes, K. J., and F. E. Warnock. 2012. "Capital Flow Waves: Surges, Stops, Flight, and Retrenchment." *Journal of International Economics* 88 (2): 235-51.
- Frankel, J., and S. Wei. 2004. "Managing Macroeconomic Crises." NBER Working Paper No. 10907, National Bureau of Economic Research, Cambridge, MA.
- Fratzscher, M., 2012. "Capital Flows, Push versus Pull Factors and the Global Financial Crisis." *Journal of International Economics* 88 (2): 341-56.
- Gallego, F., and J. Tessada. 2012. "Sudden Stops and Reallocation: Evidence from Labor Market Flows in Latin America." *Journal of Development Economics* 97 (2): 257–68.
- García-Luna, P., and A. van Rixtel. 2013. "Emerging Markets and Talk of Tapering." *BIS Quarterly Review* (December): 16–17.
- Gordon, R. J. 2014. "The Demise of U.S. Economic Growth: Restatement, Rebuttal, and Reflections." NBER Working Paper No. 19895, National Bureau of Economic Research, Cambridge, MA.
- Guidotti, P., F. Sturzenegger, and A. Villar. 2004. "On the Consequences of Sudden Stops." *Economia* 4 (2): 171–214.
- Hall, R. E. 2014. "Quantifying the Lasting Harm to the U.S. Economy from the Financial Crisis." In *NBER Macroeconomics Annual 2014*, Volume. 29, edited by J. Parker and M. Woodford.
- Hamilton, J. D., E. S. Harris, J. Hatzius, and K. D. West. 2015. "The Equilibrium Real Funds Rate: Past, Present, and Future." Working Paper, University of California, San Diego.
- Hunter, D. M., and D. P. Simon. 2005. "A Conditional Assessment of the Relationships between the Major World Bond Markets." *European Financial Management* 11 (4): 463–82.
- Hutchison, M., and I. Noy. 2006. "Sudden Stops and the Mexican Wave: Currency Crises, Capital Flow Reversals and Output Loss in Emerging Markets." *Journal of Development Economics* 79 (1): 225–48.
- Hutchison, M. M., I. Noy, and L. Wang. 2010. "Fiscal and Monetary Policies and the Cost of Sudden Stops." *Journal of International Money and Finance* 29: 973–87.



- Ikeda, Y., D. Medvedev, and M. Rama. 2015. "Advanced-Country Policies and Emerging-Market Currencies: The Impact of U.S. Tapering on India's Rupee." Policy Research Working Paper 7219, World Bank, Washington, DC.
- Institute of International Finance. 2015. "Heat Map of EM Vulnerabilities." (May).
- IMF. 2013. *Global Financial Stability Report: Transition Challenges to Stability* (October). Washington, DC: International Monetary Fund.
- \_\_\_\_\_. 2014a. *Global Financial Stability Report: Risk Taking, Liquidity, and Shadow Banking: Curbing Excess While Promoting Growth* (October). Washington, DC: International Monetary Fund.
- \_\_\_\_\_. 2014b. "IMF Multilateral Policy Issue Report: 2014 Spillover Report." Washington, DC: International Monetary Fund.
- \_\_\_\_\_. 2014c. *Regional Economic Outlook: Western Hemisphere* (April). Washington, DC: International Monetary Fund.
- \_\_\_\_\_. 2014d. *The Liberalization and Management of Capital Flows: An Institutional View*. Washington, DC: International Monetary Fund.
- \_\_\_\_\_. 2015. *Global Financial Stability Report: Navigating Monetary Policy Challenges and Managing Risks* (January). Washington, DC: International Monetary Fund.
- Kaminsky, G. 2008. "Crises and Sudden Stops: Evidence from International Bond and Syndicated-Loan Markets." NBER Working Paper No. 14249, National Bureau of Economic Research, Cambridge, MA.
- Koepke, R. 2015a. "What Drives Capital Flows to Emerging Markets? A Survey of Empirical Literature." IIF Working Paper, Institute of International Finance, Washington, DC.
- \_\_\_\_\_. 2015b. "Fed Policy Expectations and Portfolio Flows to Emerging Markets." IIF Working Paper, Institute of International Finance, Washington, DC.
- Kose, M. A., and E. Prasad. 2010. *Emerging Markets: Resilience and Growth Amid Global Turmoil*. Washington, DC: Brookings Institution Press.
- Kose, M. A., E. Prasad, K. Rogoff, and S. Wei. 2010. "Financial Globalization and Economic Policies." In *Handbook of Development Economics, Volume 5*, edited by D. Rodrik and M. R. Rosenzweig, 4283–362. Oxford, U.K.: North-Holland.
- Lavigne, R., S. Sarker, and G. Vasishtha. 2014. "Spillover Effects of Quantitative Easing on Emerging-Market Economies." *Bank of Canada Review* (Autumn): 23–33.
- Levchenko, A., and P. Mauro. 2007. "Do Some Forms of Financial Flows Protect from Sudden Stops?" *World Bank Economic Review* 21 (3): 389–411.
- Lee, H., C. Park, and H. Byun. 2013. "Do Contagion Effects Exist in Capital Flow Volatility?" *Journal of the Japanese and International Economies* 30: 76–95.
- Lim, J., S. Mohapatra, and M. Stocker. 2014. "Tinker, Taper, QE, Bye? The Effect of Quantitative Easing on Financial Flows to Developing Countries." Policy Research Working Paper 6820, World Bank, Washington, DC.
- Lo Duca, M. 2012. "Modeling the Time Varying Determinants of Portfolio Flows to Emerging Markets." Working Paper Series 1468, European Central Bank, Frankfurt.
- Matheson, T. and E. Stavrev. 2014. "News and Monetary Shocks at a High Frequency: A Simple Approach." IMF Working Paper No. 14/167, International Monetary Fund, Washington, DC.
- Meinusch, A., and P. Tillmann. 2015. "Quantitative Easing and Tapering Uncertainty: Evidence from Twitter." Joint Discussion Paper Series in Economics, No. 09-2015, University of Marburg, Marburg, Germany.
- Mishra, P., K. Moriyama, P. N'Diaye, and L. Nguye. 2014. "Impact of Fed Tapering Announcements on Emerging Markets." IMF Working Paper WP/14/109, International Monetary Fund, Washington, DC.
- Opazo, L., C. Raddatz, and S. Schmukler. 2014. "Institutional Investors and Long-Term Investment: Evidence from Chile." Policy Research Working Paper 6922, World Bank, Washington, DC.
- Ortiz, A., Ottonello, P., Sturzenegger, F., Talvi, E., 2009. "Monetary and Fiscal Policies in a sudden Stop: Is Tighter Brighter?" In *Dealing with an International Credit Crunch: Policy Responses to Sudden Stops in Latin America*, edited by E. Cavallo and A. Izquierdo, 23–73. Washington, DC: Inter-American Development Bank.

- Park, K. Y., and J. Y. Um. 2015. "Spillover Effects of U.S. Unconventional Monetary Policy on Korean Bond Markets: Evidence from High-Frequency Data." Working Paper, Yonsei University, Seoul, South Korea.
- Raddatz, C., and S. Schmukler. 2012. "On the International Transmission of Shocks: Micro-Evidence from Mutual Fund Portfolios." *Journal of International Economics* 88: 357–74.
- Rai, V., and L. Suchanek. 2014. "The Effect of the Federal Reserve's Tapering Announcements on Emerging Markets." Bank of Canada Working Paper, Bank of Canada, Ottawa.
- Rajan, R. 2014. "Concerns about Competitive Monetary Easing." Speech at Bank of Japan, Tokyo, May 30.
- Rey, H. 2013. "Dilemma not Trilemma: The Global Financial Cycle and Monetary Policy Independence." In Proceedings of the Federal Reserve Bank of Kansas City Economic Symposium at Jackson Hole. Federal Reserve Bank of Kansas City.
- Rothenberg, A., and F. Warnock. 2011. "Sudden Flight and True Sudden Stops." *Review of International Economics* 19 (3): 509–24.
- Sahay, R., V. B. Arora, A. V. Arvanitis, H. Faruqee, P. N'Diaye, and T. M. Griffoli. 2014. "Emerging Market Volatility: Lessons from the Taper Tantrum." IMF Staff Discussion Notes No. 14/9, International Monetary Fund, Washington, DC.
- Sánchez, M. 2013. "The Impact of Monetary Policies of Advanced Countries on Emerging Markets." Remarks at the 55th Annual Meeting of the National Association of Business Economists, San Francisco, September 9.
- Santacreu, A. M. 2015. "The Economic Fundamentals of Emerging Market Volatility." *Economic Synopses* (January), Federal Reserve Bank of St. Louis.
- Schularick, M., and A. M. Taylor. 2012. "Credit Booms Gone Bust: Monetary Policy, Leverage Cycles, and Financial Crises, 1870–2008." *American Economic Review* 102 (2): 1029–61.
- Shin, H. 2013. "The Second Phase of Global Liquidity and Its Impact on Emerging Economies." Speech at the Asia Economic Policy Conference, sponsored by the Federal Reserve Bank of San Francisco, November 3–5.
- Williams, J. C. 2015. "The Decline in the Natural Rate of Interest." Federal Reserve Bank of San Francisco, manuscript based on the presentation for the NABE panel "The Outlook for the U.S. and Global Economy: Headwinds, Tailwinds and Whirlwinds," January 3.
- World Bank. 2014a. *Global Economic Prospects: Coping with Policy Normalization in High-Income Countries* (January). Washington, DC: World Bank.
- \_\_\_\_\_. 2014b. "Financial Market Outlook" (February). World Bank, Washington, DC.
- \_\_\_\_\_. 2015. *Global Economic Prospects: Having Fiscal Space and Using It* (January). Washington, DC: World Bank.
- Yellen, J. 2015a. "Normalizing Monetary Policy: Prospects and Perspectives". Speech at "The New Normal Monetary Policy," a research conference sponsored by the Federal Reserve Bank of San Francisco, San Francisco, March 27.
- \_\_\_\_\_. 2015b. Comments after speech at "Finance and Society," a conference sponsored by Institute for New Economic Thinking, Washington, DC, May 6. Available at <http://www.bloomberg.com/news/articles/2015-05-06/yellen-s-focus-on-term-premium-getting-noticed-in-bond-market>.
- \_\_\_\_\_. 2015c. "The Outlook for the Economy." Speech at the Providence Chamber of Commerce, Providence, Rhode Island, May 22.
- Zhao, Y., J. de Haan, B. Scholtens, and H. Yang. 2014. "Sudden Stops and Currency Crashes." *Review of International Economics* 22 (4): 660–85.



SPECIAL FEATURE 2

AFTER THE COMMODITIES  
BOOM—WHAT NEXT FOR  
LOW-INCOME COUNTRIES?



*Growth in low-income countries has accelerated significantly since the early 2000s to its fastest pace in several decades. For commodity exporters, the improvement has been underpinned by rising global commodity prices and a surge in resource exploration and investment. The first section of this Special Feature explores the role of the commodity boom over the past decade in metal and mineral exporting low-income countries, and analyzes what the recent decline in commodity prices may imply for growth in these economies. The second part takes a look at recent economic developments and prospects for near-term growth in low-income countries. In non-commodity exporting countries, growth will continue to benefit from strong domestic demand. For commodity exporters, however, the medium-term outlook has become increasingly challenging as the importance of the natural resource sector in driving growth diminishes. The ability of these economies to navigate the headwinds will hinge on how well they have invested the dividends from the past commodity boom, and on the successes of structural reforms in supporting other sources of growth.*

## A. Implications of the Recent Decline in Commodity Prices for Commodity-Exporting Low-Income Countries

Economic activity in low-income countries (LICs) began to surge in the early 2000s.<sup>1</sup> Investment- and export-driven growth averaged 6.2 percent per year during 2000-14, double the pace of the previous three decades (Figure SF2.1). Among metal and mineral exporting LICs (which account for almost two-thirds of current LICs), the improvement was even more marked, with growth quadrupling during the 2000s compared with the previous decade.<sup>2</sup>

A number of factors contributed to the improvement, including better policy environments, a decrease in conflicts, and improvements in macroeco-

nomics stability. However, for many of today's LICs located in Sub-Saharan Africa and some in Central and South Asia (Myanmar and Tajikistan), rapid growth was driven by rising commodity prices and rising demand from China (World Bank 2015a).

In addition rising commodity prices also spurred investment in commodity exploration and production. Between 2000 and 2012, investment spending by global oil, gas, and base-metal mining companies rose five-fold to record highs. Counting investment in other mined products, total investment in 2011-12 amounted to over \$1 trillion.<sup>3</sup> In Africa, which is home to most commodity-exporting LICs, mining investment alone amounted to \$100 billion in 2011.<sup>4</sup> Less is known about the scale of investment that flowed into agriculture, but private sector investment increased in agribusiness, in the development of value chains, and in farmland in Africa (FAO 2012). An estimate of foreign direct investment in agriculture and agribusiness in developing countries for 2006/07 suggests that it was a small fraction of that in mining.<sup>5</sup> For reasons of data availability, the focus in this Feature is on the role of energy and mining booms in the LICs.

The authors of this Special Feature are Tehmina S. Khan (Section A) and Gerard Kambou (Section B).

<sup>1</sup>As of 1 July 2014, low-income economies are defined as those with a gross national income (GNI) per capita, calculated using the World Bank Atlas method, of \$1,045 or less in 2013; between \$1,045 but less than \$12,746 for middle income; and \$12,746 or more for high income. Countries currently defined as low-income include Afghanistan, Bangladesh, Benin, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Democratic People's Republic of Korea, Democratic Republic of Congo, Eritrea, Ethiopia, The Gambia, Guinea, Guinea-Bissau, Haiti, Kenya, Liberia, Madagascar, Malawi, Mali, Mozambique, Myanmar, Nepal, Niger, Rwanda, Sierra Leone, Somalia, Tajikistan, Tanzania, Togo, Uganda, and Zimbabwe.

<sup>2</sup>The definition of current metal and mineral commodity exporting low-income countries is based on that in World Bank (2015a), which defines these as countries where commodities comprise more than a quarter of total exports. These include for mining exporters Benin, Burkina Faso, Eritrea, Guinea, Liberia, Mali, Niger, Sierra Leone, Somalia and Zimbabwe; and for oil and gas exporters Chad, Myanmar, and the Democratic Republic of Congo. Countries that have recently started or are expected to start producing over the medium term due to recent discoveries include Kenya, Madagascar, Mozambique, Tanzania, and Uganda.

<sup>3</sup>Exploration and production spending by oil and gas companies quintupled to \$500 billion in 2012. Investment in base metal mining rose by a similar magnitude to reach \$120 billion in 2012. If investments in other mined products, such as coal, iron ore, precious metals, diamonds, and uranium is included, total mining investment is much larger. Figures are not available for 2012, but total mining investment (base and other metals) is estimated at \$676 billion in 2011 (ICMM 2012).

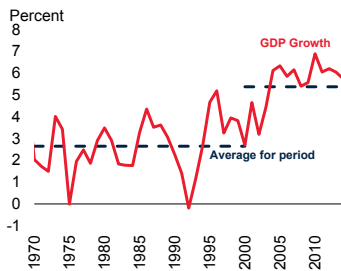
<sup>4</sup>This amounts to 15 percent of global mining investment. The figure includes North Africa, so actual investments in LIC countries in Sub-Saharan Africa are much lower. See ICMM Report (2012).

<sup>5</sup>Total foreign direct investment in agriculture and agribusiness in developing countries was estimated at \$13 billion in 2006/07, with Africa receiving \$1 billion (World Bank 2013).

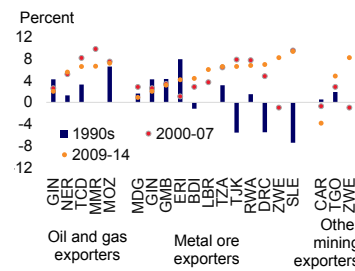
**FIGURE SF2.1 Growth in low-income countries**

Growth in low-income countries doubled during the 2000s, compared with the average for the previous three decades. For many, particularly those in Sub-Saharan Africa, faster growth was underpinned by a sharp increase in global commodity prices, a boon for commodity exporters.

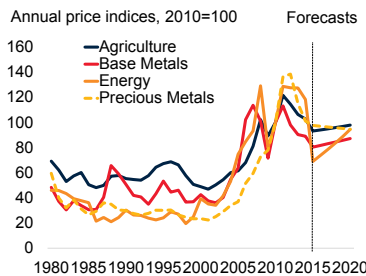
**A. LICs: GDP growth**



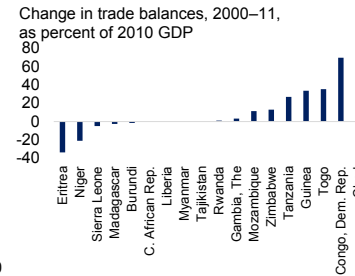
**B. Commodity-exporting LICs: Growth**



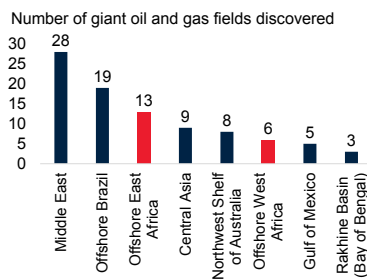
**C. Global commodity prices**



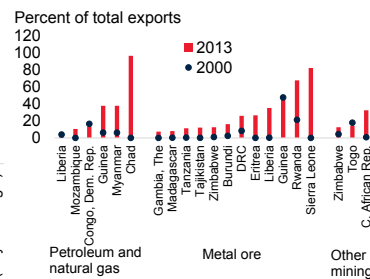
**D. Commodity-exporting LICs: Terms of trade effect on GDP**



**E. "Giant" oil and gas discoveries: Major clusters, 2000-09<sup>a</sup>**



**F. LICs: oil and gas and mining exports**



Source: World Bank, World Development Indicators.  
E. "Giant" fields are conventional fields with recoverable reserves of 500 million barrels of oil equivalent or more (Bai and Xu, 2014).

The growing importance of the natural resource sector was reflected in a rising share of exports compared to a decade earlier. Oil and gas exports accounted for a much larger share of exports (more than 10 percent) in five LICs; metal ore exports in nine LICs; and other mining exports in two LICs.

For several LICs, the 2000s also marked a decade of discoveries, with several major finds that trans-

formed country prospects. For instance, since 2000, 120 "giant" oil and gas fields have been discovered world-wide, located in seven clusters.<sup>6</sup> Two of these clusters are in Africa, mostly offshore East and West Africa. In Tanzania alone there have been 13 giant oil and gas discoveries (alongside other major finds in Kenya, Madagascar, Mozambique, Uganda), and six in West Africa in the Gulf of Guinea. Another major frontier for giant oil and gas fields has emerged in the Krishna and Rakhine basins in the Bay of Bengal in South Asia (Bai and Xu 2014, Basu et al. 2010; Figure SF2.2).<sup>7</sup>

This section takes a closer look at the role of the commodities boom in spurring faster growth in LICs over the past decade and a half, with a particular focus on current and prospective metal and mineral commodity exporting countries. Specifically it asks the following questions:

- Why did commodity exploration and investment surge in LICs in the 2000s?
- What was the impact on metal and mineral commodity exporting LICs?
- What are the implications of the recent fall in commodity prices?

**Why did commodity exploration and investment surge in LICs in the 2000s?**

The surge in investment and exploration in commodities in Africa was sparked by rising commodity prices and demand, changes in industry structure and funding, and a global shift in the location of mining toward to developing countries. These external tailwinds were coupled with better domestic policies at home, which made investment and exploration more attractive (Arbache and Page 2009).

**Higher commodity prices.** Starting in the early 2000s, rising commodity demand underpinned a synchronized increase in prices of all major commodity groups. Between 2000 and 2010, base metal and energy prices rose by more than 160 percent,

<sup>6</sup>"Giant" fields are conventional fields with recoverable reserves of 500 million barrels of oil equivalent or more. Despite the increasing importance of unconventional shale oil and gas fields, current and future oil and gas supply is dominated by conventional giant fields (Bai and Xu 2014).

<sup>7</sup>The 120 giant fields discovered since 2000 are estimated to hold "proved plus probable" reserves of 248.62 billion barrels of oil equivalent. Tanzania in East Africa alone accounts for 6.8 percent of these reserves (Bai and Xu 2014).



precious metal prices by over 300 percent, and prices of agricultural and other raw materials commodities increased by 103 and 43 percent, respectively (Figure SF2.1C).

The boom, which came after a long period of weak or declining prices and cost-cutting in the mining industry, increased returns in the mining and oil and gas industries.<sup>8</sup> This stimulated a steep increase in industry spending on mining and production investments (Figure SF2.2). Global mining exploration expenditures also rose to an all-time high, more than ten-fold 2000 levels. Out of this, mining exploration spending for Africa rose fifteen-fold to reach 15 percent of global exploration spending.<sup>9</sup>

Higher prices increased the profitability of investments in poorly accessible or high production-cost environments.<sup>10</sup> In Uganda, for instance, oil discoveries of a commercial scale were first made in 2006. As a landlocked country, Uganda's oil is difficult to access and challenging to process and transport.<sup>11</sup> Nevertheless, exploration investments and well appraisals went ahead, lifting the value of estimated oil reserves from initial estimates of less than 500 million barrels to 3.5 billion barrels in 2014 (US EIA 2014).

**New sources of funding.** Global mining and oil and gas production has been dominated by large transnational companies; however, the structure of the industry has changed over the past decade. Junior companies have emerged as risk takers at the forefront of exploration, whereas larger developers and operators have entered projects after the discovery of

<sup>8</sup>Average annual returns for the top ten global mining companies are estimated to have risen from \$3 billion in 2005 to just under \$8 billion in 2010 (UNECA 2011). Returns in the oil and gas sector are even larger, since country conditions matter less, transportation (including in unprocessed form) is easier, and the sector is less dependent on the sometimes unreliable infrastructure such as roads, railways and power stations (UNECA 2013).

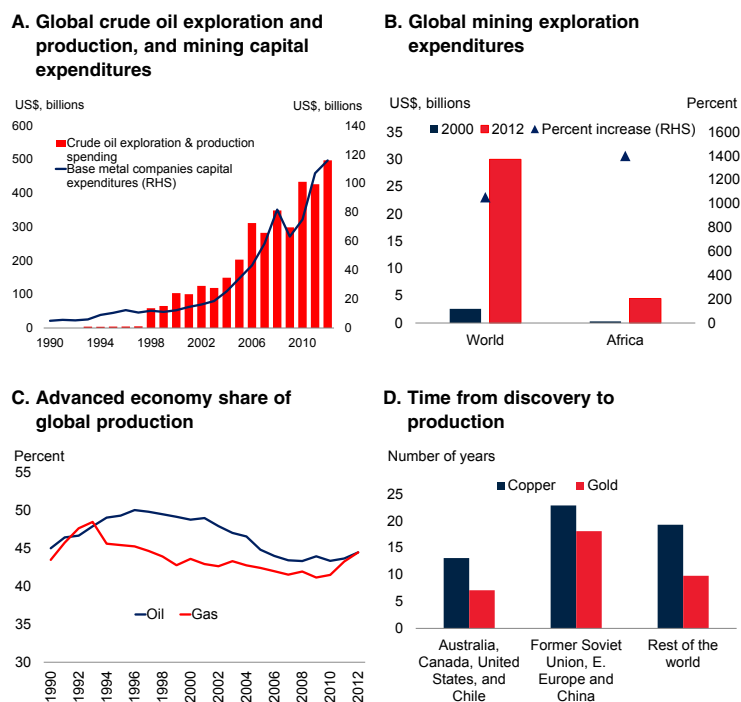
<sup>9</sup>Mining exploration expenditures in Africa rose to an estimated \$4.5 billion in 2012, up from just \$0.3 billion in 2000 (UNECA 2011; Schodde 2014).

<sup>10</sup>In addition to lower production cost, tax burdens have also been lower. The share of resource profits accruing to mining companies (rather than governments) in Africa is estimated to have been much larger than in other regions. This reflects the relatively limited (or recently initiated) government participation in mining and the general absence of special resource profits taxes (UNECA 2011).

<sup>11</sup>Uganda's oil is of waxy constituency and needs heavy refining before further use (Gelb, Kaiser, and Vinuela 2012).

## FIGURE SF2.2 Trends in commodity prices, exploration and discovery

The commodity price rise also triggered a surge in global spending on mining exploration and capital expenditures on oil and gas exploration and production, which rose to historical highs. With exploration spending increasing in low income countries, several have emerged as major frontiers for metal and oil and gas discoveries, with significant finds in (offshore) East and West Africa and the Bay of Bengal. Globally, lead times from discovery to production in mining are higher in developing than in advanced countries.



Source: World Bank, World Development Indicators, Bloomberg, MinEx Consulting, Bai and Xu (2014), IEA, Basu et al. (2010)

deposits (UNECA 2011; Gelb, Kaiser and Vinuela 2012).<sup>12</sup> Spending by junior companies is primarily driven by the availability of funding and they are likely to have benefited from easy global financing conditions in recent years (Schodde 2013).

In addition, China has emerged as a major source of exploration and development finance in Africa, broadening choices for governments in the region (Box 2.1). In Eritrea for instance, a \$60 million loan in 2007 from China's Import-Export Bank was critical for an investment agreement (and financing for a 30 percent investment stake) with the Canadian mining operator developing the Bisha mine.<sup>13</sup>

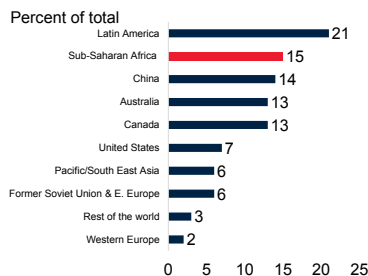
<sup>12</sup>The share of global mining output of the largest ten companies amounts to over a third of the total (Raw Materials Group, cited from UNECA 2011).

<sup>13</sup>Mukumbira, R. (2007). "Eritrea signs Bisha gold/base metals mining agreement with Nevsun." Published on Mineweb. <http://www>

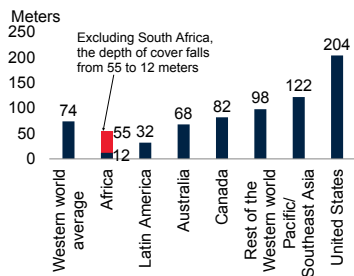
### FIGURE SF2.3 Commodity exploration, spending and discoveries in Africa

Africa has attracted a significant share of mining exploration investments reflecting the fact that it is still a relatively unexplored region, with discoveries occurring close to the surface. In addition, decreasing conflict and improving low-income country policy environments improved the investment climate.

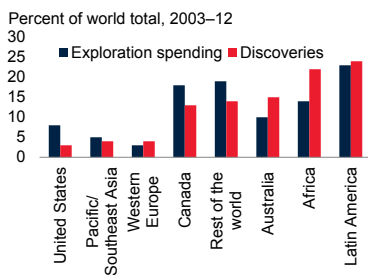
#### A. Global mining exploration expenditures by region, 2012



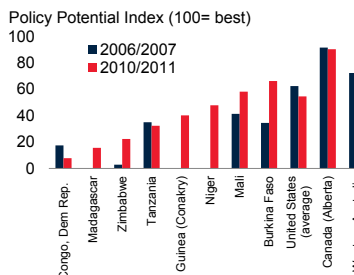
#### B. Average depth of cover for discoveries, 2012



#### C. Mineral exploration spending and discoveries, 2003-12



#### D. Policy potential index



Source: World Bank, MinEx Consulting, Fraser Institute Annual Survey of Mining Companies (2011).

A. B. C. "Rest of World" includes Middle East, South West Asia (including India and Pakistan) and Mongolia.

D. The Policy Potential index is a composite index, ranging from 1 (worst) to 100 (best) that measures the effects on exploration of government policies, including uncertainty regarding administration, interpretation and enforcement of existing regulations, environmental regulations, taxation, infrastructure, socioeconomic agreements, political stability, labor issues, geological database and security (Fraser Institute, 2011).

**Secular shift of global production to developing countries.** Higher commodity prices reinforced longer-term global trends underway since the 1980s. Easily accessible mineral and oil and gas deposits in the United States and Europe have shrunk. Technological innovations have allowed extraction in previously inaccessible or less-developed regions (including deep-water). The development of large bulk shipping carriers has facilitated the transportation of bulk commodities such as iron-ore coal and bauxite (ICMM 2012; Lusty and Gunn 2015). As a result, the location of production and exploration has in-

creasingly shifted from advanced countries towards developing countries, notably frontier regions such as Africa and the Arctic (ICMM 2012).

In mining, exploration in Sub-Saharan Africa was particularly attractive because of the region's relatively unexplored potential and low cost. The value of known sub-soil assets per square kilometer in the region is estimated to be barely a quarter of that in advanced economies (World Bank 2006, 2010). The cost of exploration was lower than elsewhere, in part because African discoveries are occurring closer to the surface than anywhere else except Latin America (Figure SF2.3). Africa had the largest discoveries per dollar of exploration cost during 2003–12: it accounted for 22 percent of discoveries but only 15 percent of global exploration expenditures (Schodde 2013).

**Improved investment climate.** The improvement in the business climate was underpinned by several factors.

- An easing of conflict or internal political tensions (Central African Republic, Democratic Republic of Congo, Eritrea, Myanmar, and Rwanda) provided greater political stability.
- Debt relief eased fiscal deficits and reduced debt burdens (World Bank 2015b; IMF 2014a).
- Economies also grew healthier, with increased growth and declining inflation, helped by improvements in policy (Eritrea, Myanmar, Rwanda).

The improvement in the business climate in several metal and mineral exporting countries is reflected in mining company assessments of how government policies affect exploration investment (Fraser Institute 2011).

Anecdotal evidence suggests that where policy makers have been keen to develop their mineral resources, lead times between discovery and production have been shorter than in countries with less-conducive policy environments.<sup>14</sup> A few examples, of both shorter and longer lead times, illustrate this point.

- *Eritrea: eight years from discovery to production.* Following the end of a border conflict with Ethiopia in 2000, gold and base metal deposits

.mineweb.com/archive/eritrea-signs-bisha-goldbase-metals-mining-agreement-with-nevsun/

<sup>14</sup>In general, the lead time between discovery and production in mining tends to be long (e.g. up to 10 years for gold and 17 years for copper), especially in developing countries (Schodde 2013).

were discovered at Bisha in 2003. Mine construction began in 2008 and was completed by 2010. Gold production started in 2011, transitioning to commercial copper production in 2013 (Economist Intelligence Unit 2013).

- Myanmar: two years from new law to active exploration.** Following the settlement of a maritime boundary dispute with Bangladesh in 2012, Myanmar reformed its foreign direct investment law and provided greater revenue incentives for international company investments in 2012. It has since issued oil and gas exploration licenses for 20 blocks in the Rakhine Basin in 2014, where giant gas discovery was first made in 2002. Bangladesh, in contrast, has been significantly slower in inviting exploration bids, with only five offshore blocks allocated for exploration in 2014.
- Uganda: at least a decade from discovery to production.** In Uganda, internal disputes over taxes and the viability of building a refinery for oil reserves discovered in 2006 have significantly delayed the award of production licenses and, consequently, production.<sup>15</sup> Production start dates have been pushed from 2016, as initially planned, to 2018, or later.
- Guinea: at least two decades from exploration to production.** Simandou, a remote mountainous area in Guinea, is the world's largest known untapped deposit of high-grade iron-ore, with an estimated mine life of 40 years.<sup>16</sup> Exploration rights were first granted in 1997 to Rio Tinto. However, with the mine subject to protracted international legal disputes since 2008, production is not expected to start until at least 2019.<sup>17</sup>

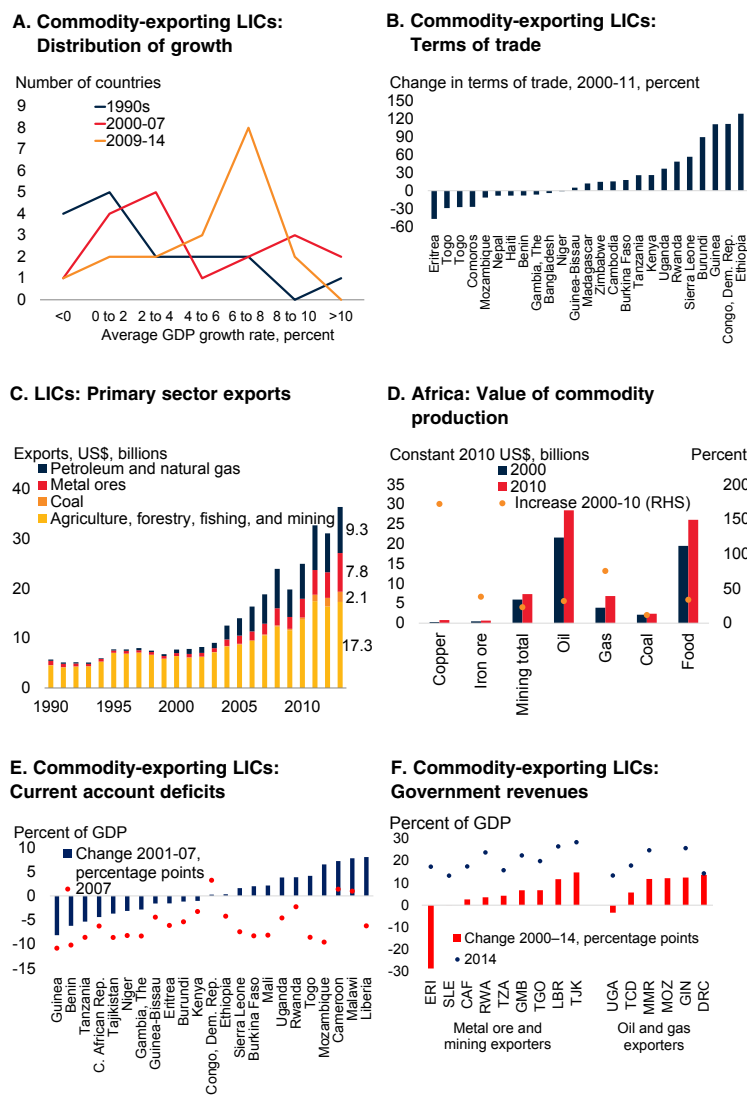
<sup>15</sup><http://www.independent.co.uk/cover-story/9694-uganda-oil-now-for-2020>

<sup>16</sup>Project development costs are estimated at \$20-\$30 billion, including rail lines needed to provide port access.

<sup>17</sup>These started with the government decision in 2008 to revoke Rio Tinto's rights to mine half of the blocks it had been awarded, assigning them instead to another company, which in turn sold a portion on to Vale, another international miner. Rio Tinto had to pay \$700 million in 2011 to secure the remainder of its concession. Although a new government is investigating the award of past contracts, the ongoing legal dispute has continued to delay production.

### FIGURE SF2.4 Impact on growth, production, and exports

The acceleration in growth in commodity exporting low income countries has been broad based. The large positive terms of trade shock between 2000 and 2011 was reflected in surging exports and a significant increase in the production of commodities. With imports also rising, partly reflecting mine development capital goods, current account deficits widened in some countries. Rising commodity sector revenues boosted public sector receipts.



Source: World Bank, Comtrade, UNECA (2013).

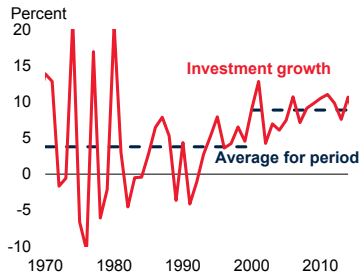
### What was the impact of the boom on metal and mineral commodity exporting LIC economies?

The commodity boom boosted investment and exports, and resulted in a broad-based improvement in growth. Rising revenues from the commodity sector meanwhile enabled increases in growth-enhancing government investment (Figure SF2.4). This led to increased employment and incomes,

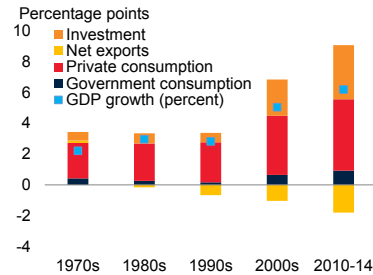
## FIGURE SF2.5 Impact on investment

Investment growth accelerated significantly in LICs relative to previous decades, reflected in a rising share of GDP. In some resource rich countries, cumulative mining investments between 2000 and 2011 amounted to over 20 percent of GDP.

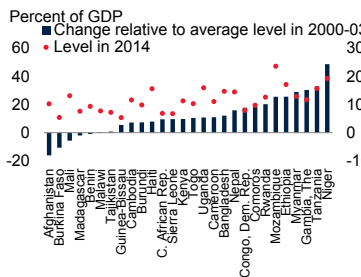
### A. LICs: Investment growth



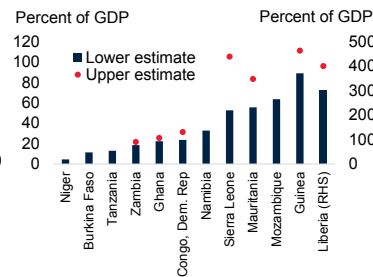
### B. LICs: Contribution to GDP growth



### C. LICs: Investment, 2014

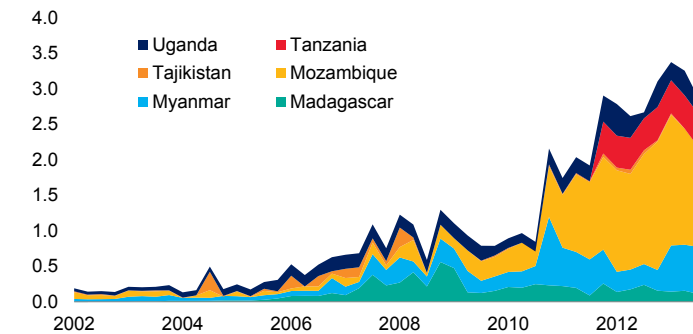


### D. Cumulative investments in mining, 2000–11



### E. Selected metal and mineral exporting countries: FDI inflows

Quarterly FDI inflows, US\$, billions



Source: WDI, McMahon and Moreira (2012), World Bank, IFS.  
D. Comprises investment in both mining construction and exploration.

which encouraged consumption spending. However, on the negative side, it tended to cause an appreciation of real exchange rate, and hence a loss of competitiveness for non-resource based activity (the Dutch Disease syndrome).

**Terms of trade:** A marked improvement occurred in the terms of trade of commodity exporters, with implied improvements in trade balances estimated at over 50 percent of GDP in some countries (Figure SF2.1.D). The expansionary growth impacts from commodity based terms-of trade shocks is well doc-

umented, including for Africa (Deaton and Miller 1996, Awel 2012, Raddatz 2007).<sup>18</sup> Model simulations of a 10 percent shock to commodity prices result in an approximately 1 percent increase in GDP per capita in Africa (Raddatz 2007). Overall growth impacts from terms-of-trade improvements and increasing commodity exports to China have also proven to be significant in a number of commodity-producing countries in Africa (Busse et al. 2014).

**Output and exports:** Between 2000 and 2010, commodity production in Africa increased by about one-quarter, albeit with considerable variation across different metals and hydrocarbons (UNECA 2013). Separate data is not available for global LIC output; however exports can be used as a proxy for production given the limited domestic use. Metal and hydrocarbon exports of LICs rose fifteen-fold during 2000–13 (Figure SF2.5); and the contribution of exports to growth doubled over this period.

**Investment.** Investment growth accelerated sharply (Figure SF2.5), with its contribution to growth rising from less than one-fifth in the 1990s to over one-half over the past decade. Mining investment was particularly substantial in 2000–11 in several LICs; cumulative spending over this period amounted to more than 20 percent of 2010 GDP in the Democratic Republic of Congo, Sierra Leone, Mozambique, and Guinea (McMahon and Tracy 2012), in some countries reflecting substantial FDI inflows. Rising revenues from the mineral sector also lifted public investment spending, especially spending on energy and transport infrastructure for accessing export markets (IMF 2014a, 2014b).

**Jobs and consumption and gains in poverty reduction.** Although natural resource sectors tend to be capital intensive, the rapid growth of mining activity—more so than oil and gas—has been an important source of job creation. For instance, greenfield FDI into natural resource sectors in Africa overall created some 600,000 jobs between 2003 and 2012, of which 400,000 were in mining. For every million U.S. dollars of investment, the mining sector is estimated to have generated three jobs – about ten times as many in the oil and gas sector (UNECA 2013). The opening of new mines

<sup>18</sup>For example, see Go et al. (2013); Izquierdo, Romero and Talvi (2008); De Gregorio and Labbé (2011); Céspedes and Velasco (2012) and Cavalcanti et al. (2015)



has brought structural shifts in local employment, raising employment and non-seasonal work opportunities for women that tend to last beyond the life of the mine (Kotsadam and Tolonen 2015). In addition, for every mining job, there 0.5 to 3 additional jobs in supporting activities; (McMahon and Tracy 2012; McMahon and Remy 2001; Kapstein and Kim 2011).

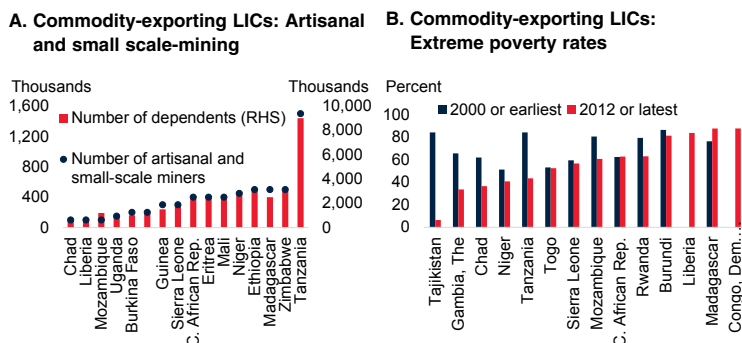
It should also be noted that mining activity in many Sub-Saharan LICs includes wide-spread direct local employment by artisanal and small-scale mining operations, as well those of international corporations (Figure SF2.6, UNECA 2011). This has helped support incomes, private consumption and welfare in the area. For instance, the opening of a new large-scale mine is found to changes economic outcomes, such as access to employment and cash earning, with evidence pointing to increased household expenditure on housing and energy, and lower infant mortality (Chuhan-Pole et. al. 2014). That said, although sustained growth and rising demand for non-tradable services have contributed to a decline in poverty rates, at 43 percent, the average poverty headcount in resource exporters remains high (Figure SF2.6).

**Real exchange rate appreciation and Dutch Disease.** In oil-exporting LICs in the CFA franc zone, rapid growth of natural resource sectors has been associated with real appreciations, and weakened competitiveness of other tradables activity (Trevino 2011). For example, real exchange rate appreciation in African economies associated with rising exports to and investment flows from China, may have hampered industrial diversification (Guillaumont Jeanneney and Hua 2015) and buoyed activity in non-tradable services sectors. In several African commodity-exporting countries, services sector growth is stronger than in countries with similar per capita income levels (Timmer et. al. 2012).

**Shrinkage of agriculture, growth of informal urban sectors.** Despite the expansion of extractive industries, agriculture still employs the majority of workers in commodity-exporting low income countries. Although there has been a significant shift out of agriculture, exiting workers have been mainly absorbed by informal and low productivity urban service sectors (McMillan and Harttgen 2014).

**FIGURE SF2.6 Employment and poverty**

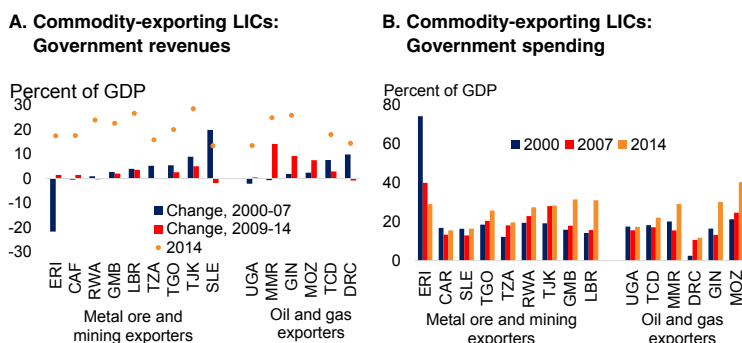
Widespread artisanal and small scale mining in Sub-Saharan Africa is likely to have helped support private consumption. Poverty rates have fallen in commodity-exporting LICs, but overall rates remain extremely high.



Source: UNECA (2011), World Development Indicators  
 B. Extreme poverty rates are the share of the population living on \$1.25 or less per day (PPP-adjusted, 2005 U.S. dollars).

**FIGURE SF2.7 Public sector receipts and spending**

Government revenues in commodity exporting LICs have been bolstered by rising receipts from the mineral sector. Prior to the global financial crisis, most countries appeared to have contained spending pressures. Since then however, spending has increased significantly as a share of GDP in some countries.



Source: World Bank, IMF.

**Cyclicality of fiscal policies.** Compared with earlier commodity price booms, macroeconomic policies in Sub-Saharan Africa were less procyclical, during much of the 2000s (World Bank 2009). Whereas during the commodities boom in the 1980s, government expenditure growth in countries dependent on primary commodities outpaced GDP growth, between 2000 and 2007 it was broadly in line or even significantly less (Eritrea, Guinea, Mozambique, Sierra Leone; Figure SF2.7). Since 2007 however, government spending has increased faster than GDP in some commodity exporters. In part this reflects fiscal stimulus employed

by some (Kenya, Tanzania and Uganda) in the aftermath of the global crisis and greater spending on growth-enhancing infrastructure spending.<sup>19</sup>

### What are the implications of the recent fall in commodity prices?

Given heavy dependence on commodities for export earnings and fiscal revenues, commodity exporting LICs are especially vulnerable to commodity price movements. Since their peak in February 2011, energy and metals prices have declined sharply (see Chapter 1). Prices of copper, iron ore, and oil have declined by 38–63 percent reflecting oversupplied markets and weaker global demand, including from China. The deterioration in the terms of trade since 2011 has been large (Figure SF2.8). Since 2014, the terms of trade decline in Chad has amounted to

<sup>19</sup>Kasekende et al. (2010).

nearly 40 percent, and between 10–20 percent in the Democratic Republic of Congo, Guinea, Liberia and Sierra Leone (World Bank 2015a). This sets back growth, as export and commodity-related fiscal revenues fall.<sup>20</sup> These negative effects will be likely be reinforced by rising volatility in commodity terms of trade (Blattman et. al. 2007, Cavalcanti et al. 2012). Indications are that volatility in prices, particularly base metals and oil, is also increasing (World Bank 2015a, 2015d).

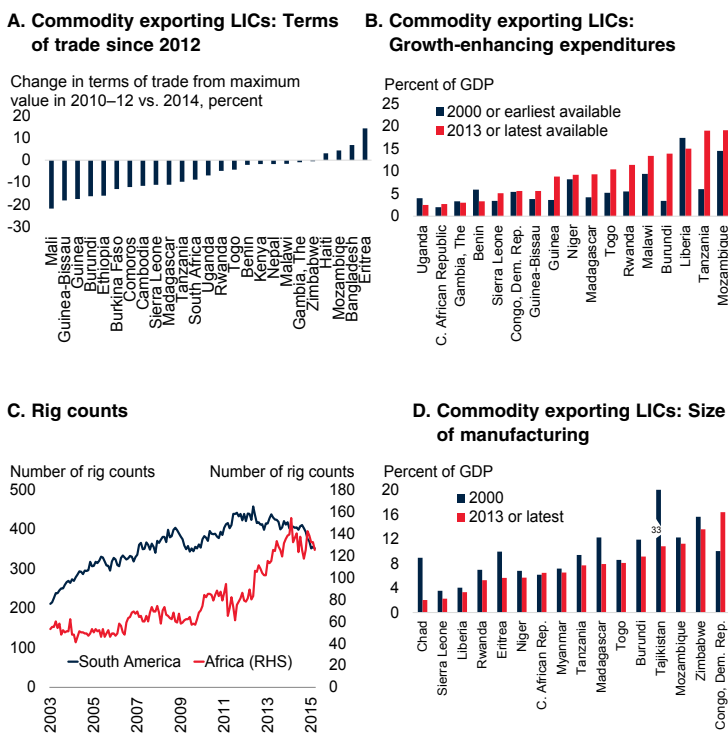
The fall in commodity prices complicates the task of macroeconomic management, as pressures on public sector balance sheets and exchange rates mount in several LICs at a time when growth is slowing (see following section). Although many commodity-exporting LICs have made progress in enhancing transparency in the resource sector—eleven are compliant with the Extractive Industries Transparency Initiative (EITI) standards—only nine have fiscal rules or stabilization funds in place to act as buffers to cope with adverse shocks (IMF 2013). Revenue dependence on the commodity sector, meanwhile, remains high. If governments are forced to scale back spending on social services and critical public infrastructure projects as resource-revenues fall, gains in poverty reduction could be lost, and prospects for future growth could be damaged by growing infrastructure deficiencies and bottlenecks.

Over the medium term, persistently low commodity prices may reduce the attractiveness of mining and oil and gas investment. Mining investment is highly cyclical and, after discovery, mining and energy projects typically require several years (and sometimes decades) to be developed to production. Since 1980, there have been four major “boom-and-bust” cycles in metal prices, with spending declining, on average, by 45 percent during the downturn. With the industry now entering what may be a fifth down-cycle (Schodde 2013) and given the signs of oversupply for some commodities (especially, oil and iron ore), companies may wait several years un-

<sup>20</sup>Separate research for Latin America and the Caribbean (LAC) region suggest that the average LAC economy will grow at a significantly slower pace even in a context of high but non-increasing commodity prices. More precisely, if prices were to remain stable at their 2013 average levels, average annual GDP growth over the medium term (2014–19) would be almost 1 percentage point lower than in 2012–13 and more than 1½ percentage points lower than over 2003–11. If commodity prices were to evolve as implied by commodity futures as of early 2014, average output growth would be even lower, by roughly another ¾ of a percentage point (Gruss 2014).

**FIGURE SF2.8 Commodity dependence: An Achilles heel**

The terms of trade shock since 2011 associated with the decline in commodity prices has been large. With a substantial share of fiscal revenues derived from the extractive sector, fiscal pressures have increased. The number of oil rigs has begun to decline, suggesting that oil and gas investment is beginning to slow. Manufacturing sectors remain small in most, suggestive of Dutch Disease effect.



Source: World Bank, IMF (2013), Baker Hughes Incorporated, various Extractive Industries Transparency Initiative (EITI) reports



til the next upswing in prices to resume investment. In addition, in a riskier environment, with interest rate increases in the United States on the horizon, the rising financing cost for smaller exploration companies could curtail their ability to carry out exploration. Rising financing costs and low commodity prices may sharply curtail exploration and development activity.

Sharp commodity price declines have disrupted new foreign investments and in some cases production in extractive-based industries. The number of oil rigs—for on-land oil drilling—has already declined from its peak in the fourth quarter of last year, by 15 percent in South America, and 11 percent in Africa. In Sierra Leone, falling iron ore prices have lowered profits and reduced the market value of the iron ore companies operating in the country (the collapsed London Mining and African Minerals). This has led not only to lower foreign investments in the sector but also to the shutdown of operations in Tonkolili (the second largest iron ore mine in Africa and one of the largest magnetite deposits in the world). In Sub-Saharan Africa, projects considered to be most at risk include the expensive ultra-deepwater and pre-salt projects in West Africa, and the liquefied natural gas projects in East Africa (BMI 2015).

As rents decline, country specific factors will likely become more important, including changes in domestic mineral policy regimes. For example, new mining taxes, or tighter ownership and exploitation rules, or delays in licenses will add to production costs (Guinea, Uganda, Zimbabwe). In some regions rising conflict or security risks are an increasingly serious issue (e.g., Mali). A decline in resource-related investment is likely to be associated with declining investment in auxiliary projects, especially transport infrastructure.

Finally, Dutch Disease associated with the commodity boom means that, for many commodity-exporting LICs, shifting growth away from a shrinking natural resource sector may prove hard. Rising infrastructure investment in some countries in East Africa, assisted by growing investment and aid flows from China, could offset some of the headwinds from slowing commodity sectors (see Box 2.1). However, for many LICs, non-resource tradable sectors have atrophied to a point where they will be difficult to revive, and in some cases service sectors have

been unduly inflated. It is difficult therefore to see how other sectors could, over the medium term, fully pick up the slack left by declining exports and investment spending.

## Conclusion and policy recommendations

The commodity boom has been pivotal in raising growth, exports and investment in metals and minerals in commodity-producing LICs. However, improvements in poverty reduction, and in higher productivity employment, are less clear. Looking ahead, the sheer size of recent commodity discoveries in some countries will continue to bode well for long term growth prospects in some countries, notably in East Africa. However, over the medium term, the global economic environment will be less favorable to growth in commodity-exporting LICs than it has been over the past decade and a half. Prospects are for a protracted adjustment to lower and more volatile commodity prices, weaker demand for exports, and reduced resource investment and production in the next few years.

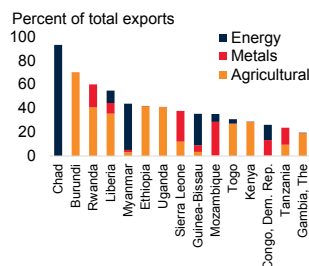
The ability to navigate these headwinds will crucially depend on the extent to which policymakers have saved the windfalls from the commodity boom over the past decade, or used them for growth-enhancing investments (Gill et al. 2014). Among countries that are highly dependent on natural resource sectors, those with low policy and reserve buffers, and large fiscal or current account deficits, face potentially disruptive adjustments. In other countries, with more diversified economies, such as Kenya, Tanzania and Uganda, the emergence of a large, vibrant, middle-class should help to support private consumption (McKinsey 2011).

Going forward, policy will continue to play a critical role. Policies that improve the conditions to do business and ease supply side and infrastructure constraints will increase the return on capital in both the resource and the non-resource sectors. Policy makers should refrain from trying to offset headwinds from the turn in the commodity cycle with demand stimulus that would also deplete buffers. Instead, in the interests of more stable growth in the future, they should focus on structural reforms that support the non-commodity sectors. This would include building infrastructure, and sound institutions (Gill et al. 2014). Evidence for Africa shows that better institutions encourage low inflation, as

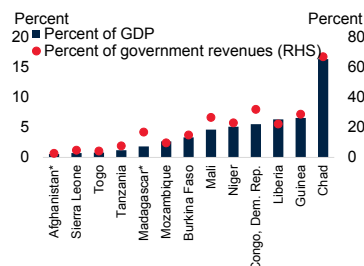
## FIGURE SF2.9 Drivers of growth in low-income countries

Although several low-income countries are heavily dependent on the natural resource sector for exports and fiscal revenues, many low-income country economies have large agricultural sectors and receive significant remittance inflows.

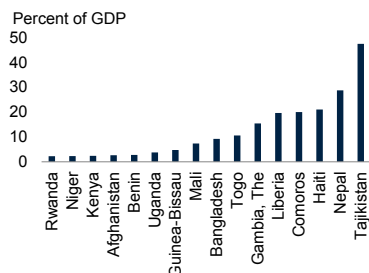
### A. LICs: Commodity exports, 2013



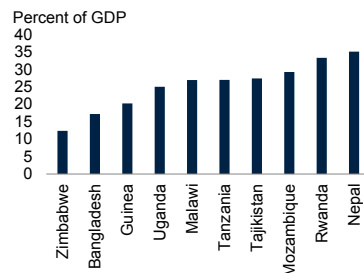
### B. LICs: Commodity revenues, latest available



### C. Remittances, 2014



### D. LICs: Agriculture, 2012



Source: WDI, Comtrade, World Bank, IMF, various Extractive Industries Transparency Initiative (EITI) reports  
B. Extractive industry sector payments (taxes, royalties, dividends) to the government from EITI reports from 2011–2013.

well as FDI inflows, and output growth stability (Ahmed and Suardi, 2009; Poelhekke and van der Ploeg, 2013).

## B. Recent Developments and Near-Term Outlook in Low-Income Countries

Thus far, large agricultural sectors, remittances, and public investment have cushioned the impact of sharply weaker terms of trade in commodity-exporting LICs (Figure SF2.9, World Bank 2015a, 2015b). Growth in LICs was flat in 2014, but is expected to pick up in 2015 and remain robust during 2016–17 (Figure SF2.10). Declining commodity prices, however, are likely to increasingly put pressure on fiscal and current account balances of LICs that rely heavily on exports of energy and

metals.<sup>21</sup> Several commodity-exporting LICs have limited buffers to absorb this deterioration. Oil-importing LICs, on the other hand, are expected to benefit from shrinking vulnerabilities as current account balances improve on falling oil import costs.

Political uncertainty has mounted in some LICs. Elections are scheduled for October 2015 in Tanzania and Afghanistan. Afghanistan is in the midst of a political and security transition, partly related to the withdrawal of U.S. troops, which is taking a toll on the economy. Bangladesh is experiencing significant supply chain disruptions related to political unrest. This is weighing on garment exports, which make up 80 percent of total exports, and is contributing to the emergence of a current account deficit.

Exchange rates have come increasingly under pressure, in commodity-exporting and -importing countries alike. This has reflected partly the broad-based strengthening of the U.S. dollar since mid-2014, and partly a reassessment of country risks and vulnerabilities.<sup>22</sup> The currencies of metal-exporting countries and the currencies of countries with large current account or fiscal deficits (Tanzania, Kenya), have depreciated particularly sharply against the U.S. dollar.

Depreciations partly offset the disinflationary impact of lower oil prices. Cheaper fuel helped lower inflation and improve current account deficits (Kenya) and fiscal deficits (Bangladesh) in some net-oil importing LICs in the first quarter of 2015. In several countries, inflation moved back within (Bangladesh, Kenya) or towards (Malawi) target ranges, allowing central banks to keep interest rates on hold or to raise them at a slower pace than otherwise. In other countries, however, inflation increased as a result of currency depreciation (Haiti, Tajikistan, Tanzania, Uganda).

For 2015–17, growth in LICs, on average, is expected to remain above 6 percent, reflecting continuing strong output growth in several large LICs, supported by sustained investment in public infrastructure (Ethiopia) and mining (Democratic Republic of Congo). Consumer spending should be

<sup>21</sup>Countries with oil, gas, and metals exports in excess of 5 percent of total exports include Ethiopia, Kenya, Madagascar, Mozambique, Nepal, Niger, Rwanda, Uganda, Zimbabwe.

<sup>22</sup>The depreciations in LICs in the CFA franc zone reflected their currencies' peg to the euro. Low-income CFA franc zone countries include Benin, Burkina Faso, Central African Republic, Chad, Guinea-Bissau, Mali, Niger, and Togo.

boosted (Bangladesh, Uganda), by growth in remittances, even if this growth is down from 2014 (Bangladesh).

Despite lower commodity prices, the forecast is for mining output to rise in a number of countries as past investments come on stream (e.g., gold and copper in Democratic Republic of Congo, coal in Mozambique) and other mining investments proceed, albeit at a slower pace (Mozambique, Tanzania). Several governments are prioritizing infrastructure projects, including in the energy sector, in some as part of recent regional agreements to upgrade regional energy grids (Kenya, Rwanda). Elsewhere, heavy government infrastructure investment is supported by Chinese financing (Côte d'Ivoire and Ethiopia; BMI 2015).

In several fragile countries (Madagascar, Malawi, Mali), growth should pick up as investment rises on the back of increased political stability. Rising political uncertainty will, however, dampen growth somewhat in Bangladesh in the near-term, although domestic demand should remain supported by resilient remittances. In Nepal, strong remittance inflows should help support domestic demand and post-earthquake reconstruction. Recovering activity in Guinea, Liberia, and Sierra Leone as the effects of the Ebola crisis wane should also help to support growth in these countries.

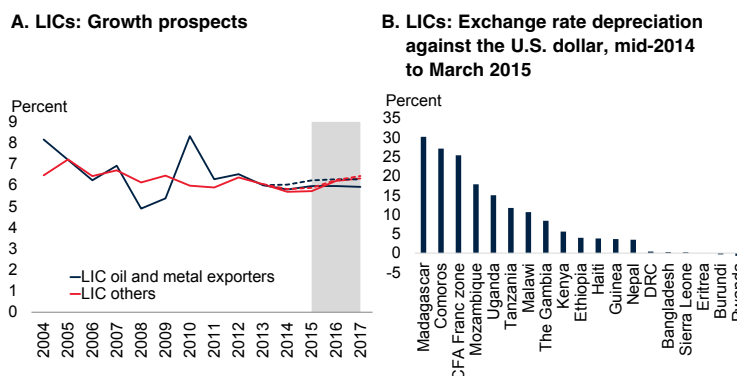
### Risks to the outlook

The outlook is subject to significant and increasing downside risks.

- A further decline in commodity prices would sharply lower revenue in oil-exporting countries, requiring them to undertake deeper fiscal adjustments, with sharper expenditure cuts. It may prompt some commodity extraction companies to delay or even cancel planned investments in 2015 (Guinea, Mozambique, Tanzania, Uganda). Given the importance of artisanal and small-scale mining in LICs, domestic private consumption may also prove weaker than expected in the baseline.
- Lower oil prices would also cause a more protracted recession than anticipated in Russia and dampen growth in Tajikistan through lower remittances and exports.

### FIGURE SF2.10 Growth prospects

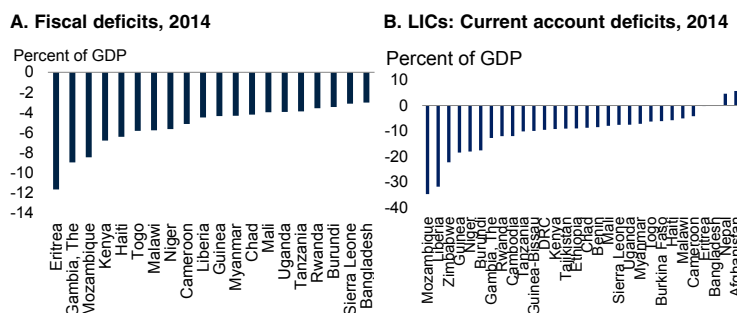
Growth should remain supported by resilient remittances, public investment, and strong harvests. However, risks remain on the downside.



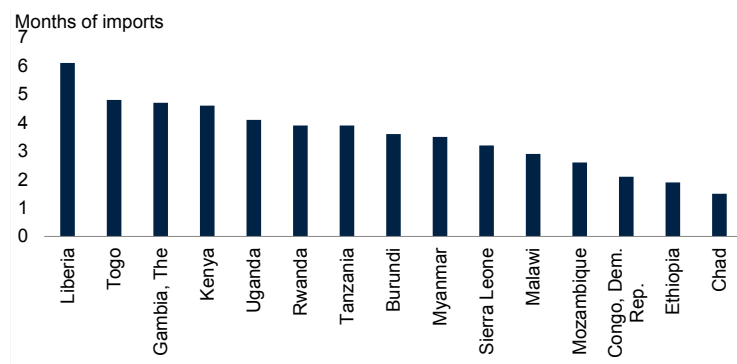
Source: IMF World Economic Outlook, IMF staff reports, World Bank, Haver Analytics.

### FIGURE SF2.11 Vulnerabilities

Risks are increasingly on the downside. Government spending has risen sharply in some countries, and deficits may prove hard to finance. Current account deficits are large in some countries and reserve buffers low.



### C. LICs: International reserves, 2014



Source: World Bank, IMF  
 Note: Reserve buffers are from latest publicly available IMF staff reports.  
 B. DRC denotes Democratic Republic of Congo.

- Conflict could intensify again in fragile states (e.g., al-Shabab in Kenya, or insurgencies in Mali).
- A sudden adjustment of market expectations to the upcoming tightening of monetary policy in the United States could put pressures on capital

account inflows, and exchange rates, and on debt service costs of countries that have tapped international capital markets since the crisis (Tanzania, Kenya, Rwanda, Mozambique, Ethiopia).

LICs continued to have limited buffers to absorb stresses should risks materialize. Current account deficits, and government borrowing requirements are large in many LICs (Figure SF2.11). Reserve coverage of imports in several countries is below three months of imports (Chad, Ethiopia, Democratic Republic of Congo). Notwithstanding the spending restraint applied by commodity-exporting LICs until 2007, the sharp post-global crisis expansion in

government spending has reduced fiscal space. As a result, several now have large twin deficits, with fiscal and current account deficits in excess of 5 percent of GDP (Guinea, Kenya, Mozambique, Niger).

## References

Ahmed, A., and S. Suardi. 2009. "Macroeconomic Volatility, Trade and Financial Liberalization in Africa." *World Development Review*, 37 (10).

**TABLE SF2.1 Low-income country growth forecasts**

(Real GDP growth at market prices in percent, unless indicated otherwise)

	00-10 <sup>a</sup>	2011	2012	2013	2014 <sup>e</sup>	2015 <sup>f</sup>	2016 <sup>f</sup>	2017 <sup>f</sup>
Low-income country	5.7	6.1	6.5	6.2	6.2	6.2	6.6	6.6
Afghanistan	12.8	6.1	14.4	3.7	2.0	2.5	5.0	5.1
Bangladesh <sup>b</sup>	6.1	6.5	6.0	6.1	5.6	6.3	6.7	6.7
Benin	3.9	3.3	5.4	5.6	5.5	4.6	4.6	4.7
Burkina Faso	6.0	4.2	9.5	6.5	4.5	5.0	6.2	6.5
Burundi	3.3	4.2	4.0	4.6	4.7	4.8	5.0	5.2
Cambodia	8.0	7.1	7.3	7.4	7.0	6.9	6.9	6.8
Chad	10.7	0.1	8.9	4.0	7.3	9.0	4.7	5.6
Comoros	2.9	2.6	3.0	3.5	3.2	3.4	3.7	3.8
Congo, Dem. Rep.	4.7	6.9	7.1	8.5	9.0	8.0	8.5	9.0
Eritrea	0.9	8.7	7.0	1.3	2.0	1.5	2.0	2.2
Ethiopia <sup>b</sup>	8.6	11.2	8.6	10.5	10.3	9.5	10.5	8.5
Gambia, The	4.6	-4.3	5.9	4.8	-0.2	3.0	5.1	6.1
Guinea	2.6	3.9	3.9	2.3	0.4	-0.3	2.3	2.5
Guinea-Bissau	2.5	9.0	-2.2	0.3	2.5	4.2	3.9	4.0
Haiti	0.1	5.5	2.9	4.2	2.7	1.7	3.2	3.1
Kenya	4.4	6.1	4.5	5.7	5.3	6.0	6.6	6.5
Madagascar	2.6	1.5	3.0	2.4	3.0	4.6	4.8	5.0
Malawi	4.5	4.3	1.9	5.0	5.7	5.1	5.6	5.9
Mali	5.7	2.7	0.0	1.7	6.8	5.6	5.1	5.2
Mozambique	7.7	7.4	7.1	7.4	7.4	7.2	7.3	7.3
Myanmar	10.3	5.9	7.3	8.3	8.5	8.5	8.2	8.0
Nepal <sup>bc</sup>	3.9	3.4	4.9	3.8	5.5	4.2	4.5	5.5
Niger	4.6	2.3	11.0	4.1	6.2	4.5	5.5	7.7
Rwanda	7.9	7.9	8.8	4.7	7.0	7.0	7.0	7.5
Sierra Leone	8.9	6.0	15.2	20.1	6.0	-12.8	8.4	8.9
Tajikistan	8.3	7.4	7.5	7.4	6.7	3.2	4.4	5.2
Tanzania	7.0	6.4	6.9	7.0	7.2	7.2	7.1	7.1
Togo	2.0	4.9	5.9	5.1	5.5	5.1	4.9	4.7
Uganda	7.8	4.7	3.6	4.8	5.2	5.5	5.7	5.8
Zimbabwe	-4.7	11.9	10.6	4.5	3.2	1.0	2.5	3.5

Source: World Bank.

World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not significantly differ at any given moment in time. Central African Rep., Korea, Dem Rep., Liberia, and Somalia are not forecasted owing to data limitations.

a. GDP growth rates over intervals are compound average over the period.

b. GDP growth based on fiscal year data.

c. Nepal forecasts are preliminary.

- Arbache, J.S., and J. Page. 2009. "How Fragile Is Africa's Recent Growth?" *Journal of African Economies*.
- Bai, G., and Y. Xu. 2014. "Giant Fields Retain Dominance in the Reserves Growth." *Oil and Gas Journal* 122 (2).
- Basu, P., R. Verma, R. Paul, and K. Viswanath. 2010. "Deep Waters of Rakhine Basin - A New Frontier." 8th Biannual International Conference and Exposition on Petroleum Geophysics. Hyderabad, India. <http://www.spgindia.org/2010/160.pdf>.
- Blattman, C., J. Hwang, and J. G. Williamson. 2007. "Winners and Losers in the Commodity Lottery: The Impact of Terms of Trade Growth and Volatility in the Periphery 1870-1939." *Journal of Development Economics* 82 (1): 156-179.
- BMI Research. 2015. "After the Commodity Boom: The New Growth Path." Economic Analysis. A Fitch Group Company.
- Busse, M., C. Erdogan, and H. Muehlen. 2014. "China's Impact on Africa - the Role of Trade, FDI and Aid." IEE Working Papers 206. Institut fuer Entwicklungsforschung und Entwicklungspolitik, Ruhr-Universitaet Bochum.
- Cavalcanti, T. V. d. V., K. Mohaddes, and M. Raissi. 2014. "Commodity Price Volatility and the Sources of Growth." *Journal of Applied Econometrics*.
- Céspedes, L.F., and A. Velasco. 2012. "Macroeconomic Performance During Commodity Price Booms and Busts," NBER Working Papers 18569.
- Chuhan-Pole, P., A. L. Dabalén, A. Kotsadam; A. Sanoh, and A. K. Tolonen. 2015. "The Local Socio-economic Effects of Gold Mining: Evidence from Ghana." Policy Research Working Paper; No. WPS 7250. Washington, DC.
- De Gregorio, J., and F. Labbé. 2011. "Copper, the Real Exchange Rate and Macroeconomic Fluctuations in Chile," Working Papers Central Bank of Chile 640.
- Gruss, B. 2014. "After the Boom—Commodity Prices and Economic Growth in Latin America and the Caribbean." IMF Working Paper WP/14/154.
- Deaton, A., and R. Miller. 1996. "International Commodity Prices, Macroeconomic Performance and Politics in Sub-Saharan Africa," *Journal of African Economies* 5 (3).
- Economist Intelligence Unit. 2013. "Copper Expansion Project at Bisha is Completed." <http://country.eiu.com/article.aspx?articleid=1390623723>.
- FAO, 2012. Proceedings of a Technical Workshop on Policies for Promoting Investment in Agriculture, 12–13 December 2012. FAO, Rome. [http://www.fao.org/fileadmin/user\\_upload/tcsp/docs/workshop%20final.pdf](http://www.fao.org/fileadmin/user_upload/tcsp/docs/workshop%20final.pdf)
- Fraser Institute. 2011. "Annual Survey of Mining Companies."
- Gelb, A., K. Kaiser, and L. Vinuela. 2012. "How Much Does Natural Resource Extraction Really Diminish National Wealth? The Implications of Discovery." Working Paper No. 290, Center for Global Development, Washington, DC.
- Gill, I. S., I. Izvorski, W. Van Eeghen, and D. De Rosa. 2014. *Diversified Development: Making the Most of Natural Resources in Eurasia*. Washington, DC: World Bank.
- Go, D. S., S. Robinson, K. Thierfelder, and R. H. Utz. 2013. "Dutch Disease and Spending Strategies in a Resource-Rich Low-Income Country: The Case of Niger." World Bank Policy Research Working Paper No. 6691.
- ICMM. 2012. "Trends in the Mining and Metals Industry." InBrief Publication.
- IMF. 2013. Fiscal Rules Dataset. International Monetary Fund.
- \_\_\_\_\_. 2014a. "Macroeconomic Developments in Low-Income Developing Countries." IMF Policy Paper. September 18, 2014.
- \_\_\_\_\_. 2014b. "Public Expenditure Reform: Making Difficult Choices." Fiscal Monitor.
- Izquierdo, A., R. Romero, and E. Talvi, 2008, "Booms and Busts in Latin America: The Role of External Factors," Research Department Publications 4569. Washington, DC: Inter-American Development Bank.
- Guillaumont Jeanneney, S., and P. Hua. 2015. "China's African Financial Engagement, Real Exchange Rates and Trade between China and Africa." *Journal of African Economies* 24 (1): 1-25.
- Kapstein, E., and R. Kim. 2011. "The Socio-Economic Impact of Newmont Ghana Gold Limited," Stratcomm Africa, Haarlem.



- Kasekende, L., Z. Brixova, and L. Ndikumana. 2010. "Africa: Africa's Counter-Cyclical Policy Responses to the Crisis," *Journal of Globalization and Development* 1 (1).
- Kotsadam A. and A. Tolonen. 2015. "African Mining, Gender, and Local Employment." World Bank Policy Research Working Paper 7251, April 2015.
- Lusty, P.A.J., and A. G. Gunn. 2015. "Challenges to Global Mineral Resource Security and Options for Future Supply." Geological Society, London, Special Publications Vol. 393, Issue 1.
- McKinsey. 2010. "Lions on the Move: The Progress and Potential of African Economies". McKinsey Global Institute.
- McMahon, G., and B. Tracy. 2012. "Firm and Sector Level Mining Benefits in Zambia." Mimeo, Oil, Gas and Mining Department. World Bank, Washington, DC.
- McMahon, G., and F. Remy (eds.). 2001. "Large Mines and the Community. Socioeconomic and Environmental Effects in Latin America, Canada and Spain," published jointly by the International Development Research Center, Ottawa, and the World Bank, Washington, DC.
- McMillan, M. S., and K. Harttgen. 2014. "What Is Driving the 'Africa Growth Miracle'?" NBER Working Paper No. 20077, April 2014.
- Mukumbira, R. 2007. "Eritrea Signs Bisha Gold/Base Metals Mining Agreement with Nevsun." Published on Mineweb. <http://www.mineweb.com/archive/eritrea-signs-bisha-goldbase-metals-mining-agreement-with-nevsun>.
- Naoussi, C. F., and F. Tripier. 2013. "Trend Shocks and Economic Development." *Journal of Development Economics* 103: 29–42.
- Poelhekke, S., and Frederick van der Ploeg. 2013. "Do Natural Resources Attract Non-resource FDI?" *The Review of Economics and Statistics* 95 (3).
- Raddatz, C. 2007. "Are External Shocks Responsible for the Instability of Output in Low-income countries?" *Journal of Development Economics* 84 (1).
- Schodde, R. 2013. "The Impact of Commodity Prices and Other Factors on the Level of Exploration." MinEx Consulting Presentation.
- Schodde, R. 2014. "Key Issues Affecting the Time Delay Between Discovery and Development." MinEx Consulting Presentation.
- The Economist. 2014. "Crying Foul in Guinea." Article published December 18, 2014.
- Timmer, M. P., G.J. de Vries, and K. de Vries. 2014. "Patterns of Structural Change in Developing Countries." GGDC research memorandum 149. University of Groningen. Available at <http://www.ggdc.net/publications/memorandum/gd149.pdf>.
- Trevino, J. 2011. "Oil-Price Boom and Real Exchange Rate Appreciation: Is There Dutch Disease in the CEMAC." IMF Working Paper. WP/11/268.
- UNECA. 2011. "Minerals and Africa's Development: The International Study Groups Report on Africa's Mineral Regimes." Addis Ababa, Ethiopia.
- \_\_\_\_\_. 2013. "African Economic Outlook: Structural Transformation and Natural Resources. Special Thematic Edition," published jointly by UNECA, AFDB, OECD, UNDP and European Commission.
- US EIA. 2013. "Uganda Country Analysis Note." US Energy Information Administration. <http://www.eia.gov/countries/country-data.cfm?fips=ug>.
- World Bank. 2006. *Where Is the Wealth of Nations? Measuring Capital for the 21st Century*. Washington, DC: World Bank.
- \_\_\_\_\_. 2009. *Global Economic Prospects: Commodities at the Crossroads*. Washington, DC: World Bank.
- \_\_\_\_\_. 2010. *The Changing Wealth of Nations: Measuring Sustainable Development in the Millennium*. Washington, DC: World Bank.
- \_\_\_\_\_. 2015a. Africa Pulse. April 2015. Vol. 11. Washington, DC: World Bank.
- \_\_\_\_\_. 2015b. *Global Economic Prospects: Having Fiscal Space and Using It*. January 2015. Washington, DC: World Bank.
- \_\_\_\_\_. 2015c. "Migration and Development Briefing." April 2015. World Bank, Washington, DC.
- \_\_\_\_\_. 2015d. "Commodity Markets Outlook. April 2015." Washington, DC: World Bank.
- Wall Street Journal. 2015. "Guinea's Simandou Auction to Test Appetite for Iron Ore." Published February 11, 2015.
- Villoria, N. 2009. "China's Growth and the Agricultural Exports of Sub-Saharan Southern Africa." *European Journal of Development Research*. 21.



CHAPTER 2

# REGIONAL OUTLOOKS



# EAST ASIA and PACIFIC



*Regional growth is expected to ease further to 6.7 percent in 2015 and remain flat thereafter. This reflects a continued slowdown in China that is offset by a pickup in the rest of the region. As a net hydrocarbon importer, the region is expected to benefit from low fuel prices. In 2015, headwinds from tighter fiscal policy (Malaysia, Vietnam) and macroprudential regulation (China, Malaysia, and Thailand) are expected to be largely offset by gradual recovery of investment and manufacturing exports associated with a global recovery and continued low financing cost. Softer commodity prices have affected commodity exporting countries like the Lao People's Democratic Republic and Indonesia. Risks to this outlook remain tilted to the downside. Policy makers, especially in economies with a high share of U.S. dollar-denominated debt, will find it increasingly challenging to balance the needs of supporting growth and preserving export competitiveness against maintaining financial stability amidst an appreciating U.S. dollar and prospects of rising U.S. interest rates.*

## Recent Developments

Growth in the East Asia and Pacific (EAP) region slowed, as expected, by 0.2 percentage points to 6.9 percent in 2014 (Figure 2.1 and Table 2.1). Fiscal and macroprudential policy tightening in the major regional economies, political problems in Thailand, monetary tightening and election-related uncertainty in Indonesia, and budget execution bottlenecks in the Philippines (World Bank 2015a) contributed to weaker economic activity. Investment continued to ease from the credit-fueled high rates of the post-crisis years. The main offset to these negatives came from consumption, on the back of tight labor markets and accommodative monetary policies. Rising exports to recovering high-income countries, especially to the United States, are providing additional support.

In China—where policy measures guided a gradual decline of growth to 7.4 percent in 2014—economic activity continues to slow in 2015, although continued policy easing has moderated the deceleration. Investment remains constrained by overcapacity in heavy industries, an on-going decline in the housing sector, and regulatory tightening of non-traditional lending. Data on industrial prices, imports (particularly of commodities), and lead indi-

cators of manufacturing activity point to further weakness. The size of stimulus programs to support activity has gradually declined. Policy support has become more cautious and increasingly implemented by conventional tools—monetary policy easing, through targeted cuts in required reserve ratios and in policy rates, and fiscal support for infrastructure projects. Low fuel prices and stronger global demand provided a boost, offsetting some of the weakness in investment. The on-going shift from industry to services (including private services) continues to support dynamic job creation and robust consumption growth.<sup>1</sup> While low oil prices have reduced inflation, core inflation remained stable in the first quarter of 2015, reflecting robust private consumption and policy easing.

China's current account surplus remains at around 1.8 percent of GDP, helped by a sustained improvement in terms of trade. However, net capital inflows have reversed. Since the second quarter of 2014, portfolio and other capital outflows have increased sharply and were only partially offset by record high FDI inflows into the services sector. Capital out-

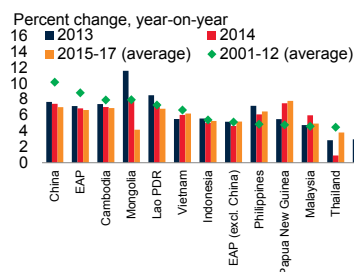
<sup>1</sup>From 2007 through 2012, private enterprises and household businesses added a total of 41.5 million jobs in the services sector, more than four times the jobs that state-owned firms added during this period (Rutkowski 2015).

The main author of this section is Ekaterine Vashakmadze.

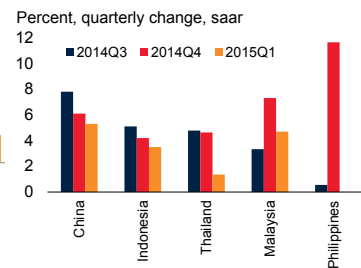
## FIGURE 2.1 East Asia and Pacific: Regional growth and performance in China

Growth in East Asia and Pacific region slowed by a modest 0.2 percentage points to 6.9 percent in 2014, as expected, largely because of a continued slowdown in China. China's growth decelerated further in the first quarter of 2015. Beyond China, growth in the first quarter of 2015 slowed in Indonesia, Malaysia, and Thailand reflecting continued adjustment to lower commodity prices, weak external demand, and still weak confidence in Thailand.

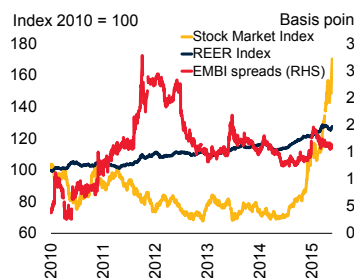
### A. Real GDP growth



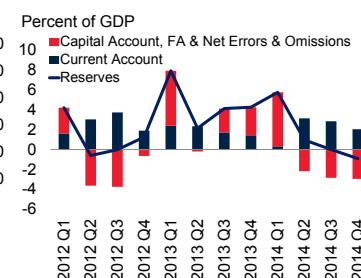
### B. Selected countries: Real GDP growth



### C. China: Stock price and REER indices (2010=100), and EMBI spreads



### D. China: Balance of payments



Sources: World Bank, Haver, CEIC, IMF IFS, J.P. Morgan, Bloomberg. C. J.P. Morgan Emerging Market Bond Index global sovereign spreads.

flows have been driven by changing domestic and external conditions. These include:

- (i) a move toward two-way exchange-rate fluctuations and receding expectations of persistent renminbi appreciation;<sup>2</sup>
- (ii) a narrowing interest rate differential to the United States as a result of domestic policy easing and expectations of policy tightening by the Fed, and greater volatility in cross-border flows;
- (iii) improved global growth prospects, in contrast to weakening growth and a housing price correction in China; and possibly

<sup>2</sup>Corporations are increasingly holding on to their foreign currency proceeds (both onshore and offshore) and hedging their foreign currency exposures.

- (iv) capital flight related to the ongoing anti-graft campaign.

Foreign-currency reserves declined by an estimated US\$263 billion (7 percent of total) between June 2014 and March 2015. This was largely driven by valuation effects (about 2/3 of the decline).<sup>3</sup> Notwithstanding this decline, China's foreign exchange reserves remain solid (about 38 percent of GDP and 24 times monthly imports). The renminbi depreciated sharply in mid-March against the U.S. dollar, after several months of steady appreciation. This signaled the PBC's intention to deter speculators who had been betting on one-way appreciation of the Chinese currency. Nevertheless, in real effective terms, the renminbi has appreciated by around 6 percent since end-2014, and by 27.4 percent since 2010.

Despite the slowdown in China, economic activity elsewhere in the region accelerated sharply in the last quarter of 2014, partly helped by lower fuel prices and more accommodative policies. For 2014 as a whole, growth was 4.7 percent, in line with the Global Economic Prospects (GEP) projection in January 2015, but nevertheless lower than in 2013 (5.2 percent). Domestic demand, especially consumption, remains the main driver of regional growth. Lower fuel prices, dynamic capital and labor markets, robust inflows of remittances and capital, and accommodative monetary policies boosted growth. Implementation of large public projects provided additional support to growth in Malaysia and the Philippines in the last quarter of 2014 (World Bank 2015b), but investment in general remains much weaker than in earlier periods.

Low oil prices, tighter macrofinancial policies, and stronger exports, have contributed to improving current account balances, except in commodity-exporting countries (Figure 2.2). Current account surpluses continue to widen, especially in the Philippines and Thailand. In contrast, earlier large surpluses have unwound in fuel-exporting Malaysia. In Indonesia, the current account remains in deficit as the economy adjusts to a 40 percent drop in the prices of key export commodities from their 2011 peaks (World Bank 2015c). In Indonesia, and Mongolia, external financing requirements remain elevated as a result of

<sup>3</sup>Related to the weakening of non-US\$ currencies (including euro and yen depreciation, which account for about 40 percent of China's foreign exchange reserves) (Miner 2015).



persistent fiscal and sizeable current account deficits.<sup>4</sup> However, reserve coverage of imports and short-term debt remains solid in most countries in the region.

Headline inflation (core inflation plus food and energy costs) has dropped to very low levels in several countries (Malaysia and Thailand, Figure 2.3). However, there is little risk of deflation, except perhaps in Thailand where the core and headline rates are well below the official target rate. In contrast to other countries in the region, the high rate of inflation in Indonesia remains a challenge for policymakers.

The majority of regional currencies depreciated against the U.S. dollar, but appreciated against the euro and yen and in real effective terms, affecting export competitiveness. Those countries with external debt above 50 percent of GDP and deteriorating terms of trade (Malaysia, Mongolia, and Papua New Guinea) saw their currencies depreciate strongly over the past 18 months.<sup>5</sup> The strengthening U.S. dollar creates significant balance-sheet pressures for corporations with large dollar-denominated liabilities.

With the notable exception of Malaysia, capital flows to the region have rebounded in 2015, reflecting quantitative easing in the Euro Area, and lingering demand for higher-yielding, emerging markets debt.<sup>6</sup> Malaysia is at risk of further portfolio outflows due to a narrowing current account surplus because of declining fuel prices, sizable short-term bank external debt, and significant foreign holdings of local-currency denominated government debt.

Credit growth in the region appeared to recover, but the pace remains far below earlier elevated levels (Figure 2.4). Borrowing has slowed, reflecting tighter lending policy in Indonesia and stricter prudential measures in Malaysia. Domestic debt-to-GDP ratios (across all sectors) exceed pre-crisis levels in several countries, and are above 150 percent in China, Malaysia, and Thailand. The post-crisis debt build-up

<sup>4</sup>In Malaysia, external financing requirement is related to the short-term debt refinancing needs.

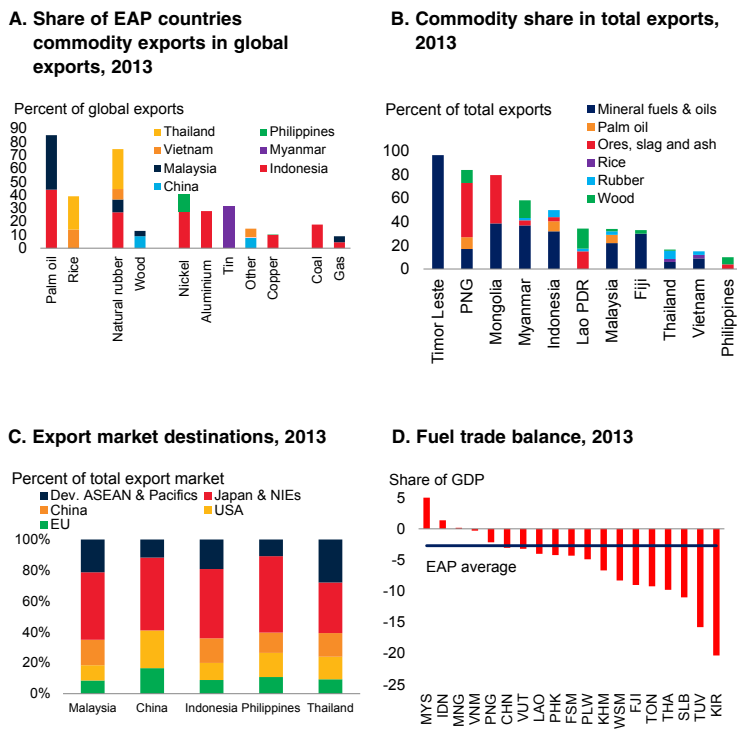
<sup>5</sup>External debt includes non-resident holdings of locally-denominated debt securities. In Malaysia total external debt, including non-resident holdings of local currency denominated debt was estimated at 69.6 percent of GDP at end-2014, while debt to GDP ratio excluding non-resident holdings stood at 34.3 percent of GDP.

<sup>6</sup>Quantitative easing in Japan has significantly less impact on cross-border capital flows due to its inward orientated nature.

<sup>7</sup> In Mongolia, a sizeable share of external debt represents intra-company debt.

### FIGURE 2.2 Key exports

EAP countries are the world's largest producers of palm oil, rice and natural rubber and have significant global market shares in other commodities. Some are heavily dependent on exports of a few commodities. Except for Indonesia and Malaysia, all are net fuel importers. The largest trading partner is Japan, followed by China and the United States.



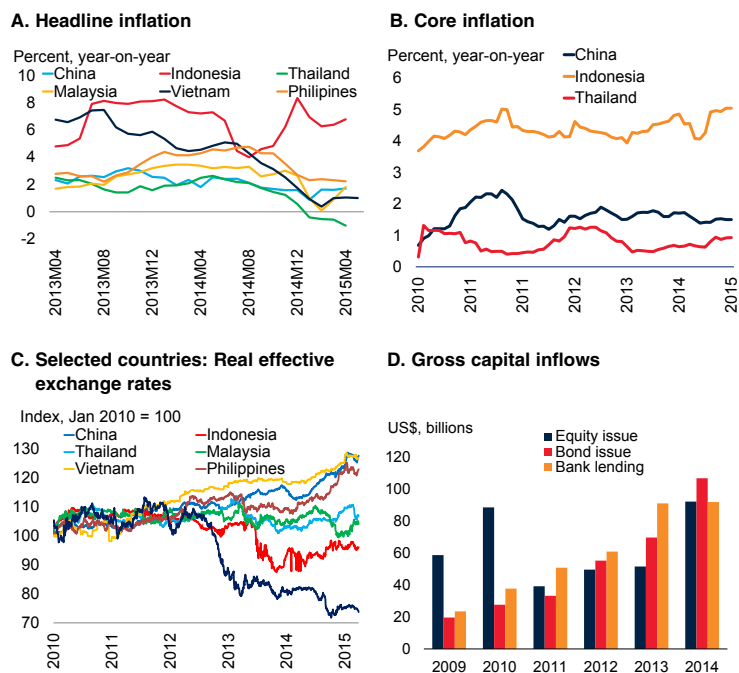
Sources: UN Comtrade, World Bank.  
 B. Includes coal and petroleum gases.  
 C. NIE are Newly Industrialized Economies. Dev. ASEAN (Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand, Vietnam) and Pacifics (Fiji, PNG, East-Timor, other smaller Island States; here also includes Australia and New Zealand).  
 D. Includes hydrocarbons and coal. Excludes Timor-Leste, which has large positive fuel trade balance.

was particularly marked in the non-financial corporate sector and increasingly driven by bond financing—a shift away from more traditional bank borrowing. Although emerging and developing countries of the region have increasingly relied on domestic credit markets for finance, private external debt exceeds 30 percent of GDP in Lao PDR, Papua New Guinea, and Mongolia.<sup>7</sup>

Most countries made efforts to reduce fiscal deficits in 2014. Fiscal balances improved particularly in Malaysia (to 3.4 percent of GDP in 2014, from 6.7 percent in 2009), Lao PDR (to 4.3 percent of GDP in 2014, from 6 percent in 2013), and the Philippines. Despite reforms to rationalize fuel subsidies and raise fuel taxes, deficits continued to rise in Indonesia, largely because of weak revenue. In Mongolia and Vietnam, fiscal deficits remain elevated, whereas

## FIGURE 2.3 Inflation and real exchange rates

Lower oil prices have reduced headline inflation but core inflation has remained stable and, in Indonesia, elevated. In real trade-weighted terms, most currencies have appreciated against the U.S. dollar, while strong capital inflows into the region.



Sources: Haver, IMF IFS, BIS, World Bank WDI, Dealogic.

B. Excludes food and energy prices.

C. CPI-deflated real effective exchange rates. An increase denotes an appreciation.

Cambodia and Lao PDR are making progress toward debt reduction, despite declining donor grants. In Pacific Island countries, fiscal positions generally improved, reflecting strong revenues from taxes on tourism and from donor grants. Across the region, tax revenue collection remains relatively low. Government spending in several countries (especially Indonesia and Malaysia) have tended to be correlated with commodity-related exports (Figure 2.5) reflecting also the earlier relatively large fuel subsidies.

## Outlook

Regional growth is expected to ease to 6.7 percent in 2015 and remain stable thereafter. The continued slowdown in China should be gradually offset by a pickup in the rest of the region, which is benefiting from the strengthening recovery in advanced countries, low energy prices, improved political stability, and ample liquidity in global financial markets despite an expected gradual tightening in the United States. EAP countries will mostly benefit from low

fuel prices, but the impact will vary across countries, reflecting the magnitude of net fuel imports, energy intensity of production, and the share of oil and gas in energy consumption.

In China, growth is projected to moderate to 7.1 percent in 2015 and 6.9 percent in 2017, reflecting policy efforts to achieve a more sustainable growth path. Continuing measures to contain local government debt, curb shadow banking, and tackle excess capacity may reduce investment and industrial output. Measures aimed at curbing energy consumption and reducing pollution may have the same effect. Low oil prices will soften the impact of these reforms, and targeted policy measures are expected to be applied as needed to ensure a gradual slowdown.

In the region excluding China, the forecast is for growth to reach 4.9 percent in 2015 and 5.4 percent in 2017, driven by the large ASEAN economies (Table 2.2).

- In Indonesia, which continues to adjust to lower commodity prices, growth will moderate further to 4.7 percent in 2015 before picking up to 5.5 percent in 2016-17, supported by a recovery of investment and stronger exports.
- In Thailand, real GDP growth is projected at 3.5 percent in 2015, with exports picking up slightly. However, domestic demand will remain weak, despite increased social stability. Growth is expected to strengthen in 2016-17 to 4 percent, as commodity prices remain low and the recovery in high-income economies strengthens.
- In Malaysia, growth will likely slow to 4.7 percent in 2015, as low oil prices dampen investment in the oil and gas sector and credit growth continues to slow. In addition, private consumption will moderate as a result of the introduction of the Goods and Services Tax (GST, a value-added tax) in April 2015 (World Bank 2015d). Capital expenditures in the oil and gas sector, a key driver of strong investment growth in the past three years, will be delayed by lower oil prices. An acceleration in growth to 5 percent is expected in 2016-17, as some normalization occurs.
- In Vietnam, GDP growth is forecast at 6 percent in 2015, rising gradually to 6.5 percent in 2017 on the back of continued strong performance of the manufacturing sector, exports, and foreign investment.

- Growth in the Philippines is projected to remain strong, benefitting from a recovery in Japan and from low fuel prices.

Growth will decelerate in several smaller economies due to low oil prices and measures to unwind financial vulnerabilities. In Mongolia, weak world prices for copper and coal will reduce mining production. In Cambodia, growth will remain slightly below 7 percent in 2015–17, reflecting weaker prices for agricultural commodities and slower improvements in crop yields, constrained garment exports amid real currency appreciation and competition from new entrants, and concerns whether the recent rapid growth in tourism will continue. In Lao PDR, growth will ease to 6.4 percent in 2015 due to lower public spending and efforts to reduce credit growth, and recover to 7 percent over the medium term, led by electricity exports, with mining production remaining flat.

Growth in the smaller Pacific Island countries will be supported by rising trade, tourism, and remittances, and generally positive country-specific developments. In Papua New Guinea, however, growth will decline sharply after a temporary 16 percent spike in 2015. The economic gains from liquefied natural gas (LNG) exports, which began in May 2014 and increased rapidly, will more than offset the completion of LNG-related construction work. In Timor-Leste, government spending is expected to help non-oil growth to gradually strengthen to 7 percent by 2017, while low prices dampen oil output.

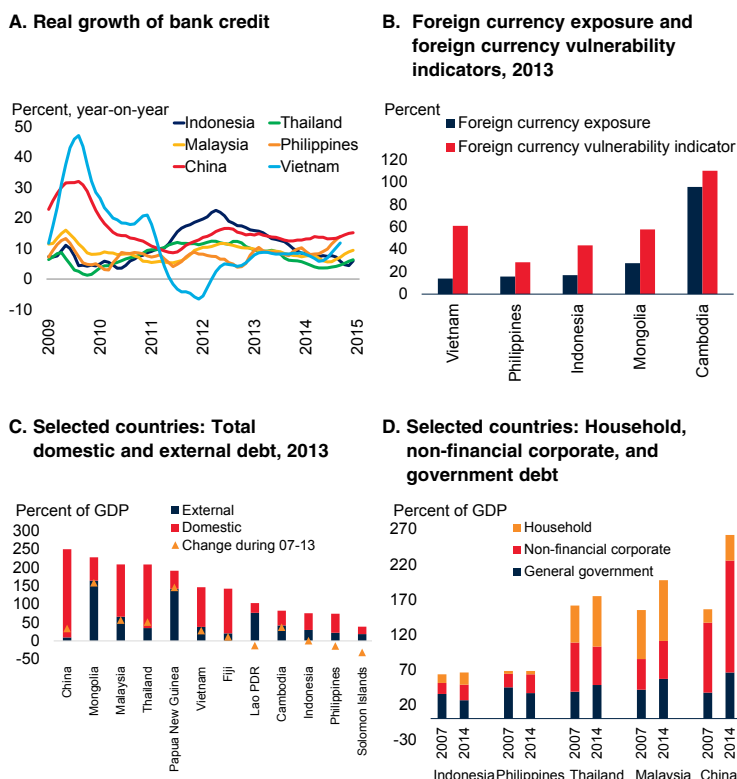
## Risks

Risks, both external and internal to the region, remain tilted to the downside, but less so than in January. Although the probability is low, the risk of a hard landing in China remains. Since the region's economies are very open, they are vulnerable to trading partner slowdowns and large exchange rate shifts, including further U.S. dollar appreciation.

<sup>8</sup> Debt levels in China, Malaysia, and Thailand are now at the level of some advanced economies (averaging 280 percent of GDP, compared with 121 percent for developing countries). Credit is vital for economic activity and high levels of debt in the EAP region largely reflect financial deepening and better demographic and growth prospects than in other developing regions. However, policies should remain focused on maintaining prudent frameworks and financial stability objectives given a very rapid build-up of debt in the region and the previous boom-bust episodes.

**FIGURE 2.4 Debt**

Despite a recent slowdown, debt remains significantly above 2007 levels and in China, Malaysia, and Thailand more than 150 percent of GDP. A modest share of non-financial corporate and household debt is denominated in U.S. dollars.



Sources: Moody's Statistical Handbook. Haver, IMF IFS, BIS, World Bank WDI, Debt database, McKinsey. B. Foreign currency exposure is measured as total foreign currency deposits in the domestic banking system/total deposits in the domestic banking system. Foreign currency vulnerability indicator is defined as (total foreign currency deposits in the domestic banking system)/(official foreign exchange reserves + foreign assets of domestic banks). C. Includes both public and private-sector debt. Includes local currency denominated debt held by foreigners (large part of external debt in Malaysia). Ratios for Malaysia will improve with the rebased GDP. In Mongolia, a large share of external debt represents intra-company debt.

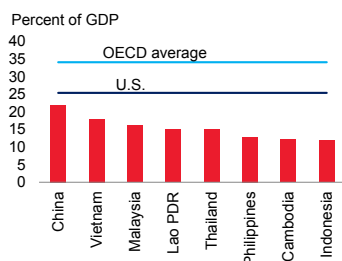
Low fuel prices, if sustained, present an upside risk for the regional outlook.

Financial market volatility or sharply tightening financing conditions pose significant risk to the outlook. This may take the form of asynchronous monetary policy tightening in major economies, or geopolitical risks. Abrupt increases in bond yields and exchange rate volatility could result, as investors reassess growth prospects and policies. Debt stands at high levels in several countries. Although it remains predominantly local currency-denominated, corporations have borrowed large amounts in foreign currencies. High debt stocks expose countries to risks from rising borrowing costs, or credit shut-offs.<sup>8</sup> Exchange rate adjustments may cause balance sheet strains in some countries. The combination of high debt levels and currency mismatches creates

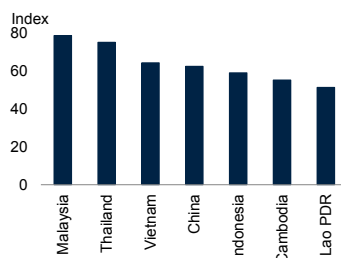
## FIGURE 2.5 Policy issues

Across the region, tax revenue collection remains low by advanced country standards, and dependence on commodity/fuel related exports cause procyclical fiscal pressures in several countries (e.g. Indonesia, Malaysia).

### A. Tax revenue, 2014



### B. Ease of Doing Business: Distance to frontier score, 2015



Source: WDI, OECD, IMF, Fiscal Monitor, WEO, World Bank, Doing Business indicators.

B. The distance to frontier score aids in assessing the absolute level of regulatory performance and how it improves over time. This measure shows the distance of each economy to the "frontier," which represents the best performance observed on each of the indicators across all economies in the Doing Business sample since 2005. This allows users both to see the gap between a particular economy's performance and the best performance at any point in time and to assess the absolute change in the economy's regulatory environment over time as measured by Doing Business. An economy's distance to frontier is reflected on a scale from 0 to 100, where 0 represents the lowest performance and 100 represents the frontier. For example, a score of 75 in DB 2014 means an economy was 25 percentage points away from the frontier constructed from the best performances across all economies and across time. A score of 80 in DB 2015 would indicate the economy is improving. In this way the distance to frontier measure complements the annual ease of doing business ranking, which compares economies with one another at a point in time.

systemic risk and the possibility of sharp increases in country risk premiums.

A weaker-than-expected recovery in high-income countries, especially in the United States, the Euro Area, Japan, and the Newly Industrialized Economies would weaken global and regional trade and impair the region's exports. High-income country exports account for about 60 percent (Thailand) to 90 percent of the region's exports.

A sharp slowdown in China, while unlikely, would have spillover effects on regional trading partners and commodity exporters. A hard landing could originate from:

- a steep decline in property prices that forces developers and banks to deleverage quickly and investment in real estate to contract sharply;
- a sharp slowdown in infrastructure investment following the implementation of the local government debt framework;
- bankruptcies in primary and heavy industries (now suffering from overcapacity); or
- a decline in shadow banking activity that causes a sharp cutback in credit availability.

Finally, as the surge in China's stock market continues, the financial and economic consequences from a possible correction will increase. Should it materialize, a sharp slowdown in China could usher in a prolonged period of slow growth as the economy heals, and would have regional and global spillovers (World Bank, 2014a). A one-time 1 percentage point decrease in China's growth relative to the baseline (a 2 percentage point decrease in investment growth) would reduce growth in the region by approximately 0.2 percentage points (World Bank, 2014a). The impact would vary across countries, with commodity exporters with less diversified economies and regional supply chain economies affected the most (Ahuja and Nabar, 2012). Nevertheless, China is in a strong fiscal position with policy buffers that appear adequate to contain risk related to financial sector distress.

## Policy Challenges

In China, the key policy challenge is to put growth on a sustainable path, while improving financial stability. The authorities have initiated several programs to implement the comprehensive structural reform agenda announced in November 2013 (World Bank, 2014a). The objective is to increase the role of markets and to facilitate resource reallocation to sectors with high returns. The key policy challenge is to shift growth towards more sustainable sources in the medium-term, while avoiding a sharp slowdown, or financial distress, in the short-term. A couple of areas stand out as candidates for early action:

- fiscal reforms to place local government finances on a more solid footing and facilitate a shift from investment to consumption; and
- financial sector reforms to improve resource allocation, strengthen market discipline, and contain a further buildup of financial sector vulnerabilities.

Next in line would be reform of state-owned enterprises, land ownership, and labor markets. Such changes would help maintain growth and lift employment (World Bank and Development Research Center of the State Council, the People's Republic of China, 2014).



The authorities have made some progress in implementing their comprehensive reform agenda. Increasingly, the business tax is being replaced with value-added taxation (e.g. in railways from January 2014; in telecommunications from June 2014), environmental taxes have been increased, and the introduction of a reformed national property tax is planned (Lam and Wingende 2015). A revised budget law and new rules on local borrowing were introduced to swap local government debt into lower-cost government bonds. Pilot property tax systems have been rolled out in a few cities. The deposit rate ceiling was raised and deposit insurance (a prerequisite for further interest rate liberalization) was introduced on May 1, 2015. The exchange rate band was widened from 1 to 2 percent, and the Shanghai-Hong Kong Stock Connect program is promoting some international capital flows. Specifics of gradual reforms to the hukou system were announced, including the granting of some social benefits to some 100 million migrant workers over the next seven years and a relaxation of residency requirements in smaller towns.<sup>9</sup> A pilot program was started under which farmers can turn their land-use rights into shares in farming enterprises or cooperative societies. This pilot is part of a series of reforms to privatize the land rights to protect farmers' interests. The process of documenting farmers' land use rights has been initiated. China accelerated administrative reform, including by streamlining and centralizing preconstruction approvals, and simplifying court proceedings to facilitate contract enforcement.

Falling world fuel prices create an opportunity to eliminate fuel subsidies, which have strained public finances and weakened current accounts in both fuel exporters and importers. Energy taxes should also be reformed for the same purposes. Recent steps to reduce such distortions have gathered momentum, which now needs to be sustained. Broadening the revenue base and improving the effectiveness of public spending remains a priority across much of the region. In most large economies, expenditures could be rationalized to focus on effective productivity-enhancing or poverty-reducing programs. Some countries have no option but to consolidate to control a buildup of debt (Mongolia, Lao PDR, Vietnam) or safeguard fiscal buffers

(Myanmar). The Pacific Island countries face significant medium-term fiscal sustainability challenges.

Monetary and exchange rate policies have to adjust to soft commodity prices and to the likelihood of somewhat tighter global financial conditions (Indonesia, Mongolia, Papua New Guinea). Strong regulation and supervision to protect financial stability may also require proactive use of macroprudential policies to moderate the effects of the financial cycle on asset prices, credit, and aggregate demand (IMF 2015a). In Malaysia, the GST, introduced in April, will broaden the base of federal revenues and diversify it away from volatile oil and gas revenues. The vast majority of the budget subsidies have been eliminated. Policies should focus on building the mechanisms to avoid re-introducing subsidies when oil prices go up. In Indonesia, moderate fiscal consolidation should be underpinned by a broadened tax base. In Thailand, fiscal support may be appropriate in the short-term to boost the economy. However, support measures should be framed within a medium-term fiscal plan to strengthen revenue, increase investment, and bolster fiscal institutions.

Across the region, structural reforms are required to mitigate the effects of slowing productivity growth, and aging populations. Development of human capital and physical infrastructure remains a key medium-term priority. In Thailand, for example, reforms to state enterprises, rice and rubber price-support schemes, infrastructure procurement, and tax administration and expenditures would improve transparency, investor confidence, and fiscal sustainability. For hydrocarbon producers like Indonesia and Malaysia, the decline in fuel prices underscores the need to enhance fiscal institutions to better manage volatile natural-resource rents. Furthermore, the accumulation of foreign assets during good times can prevent currencies from appreciating to the point that non-energy activities become non-competitive. Other measures to promote economic diversification include ensuring high-quality education, increasing the integration and depth of domestic financial markets, providing infrastructure to remove bottlenecks, and creating competition regimes that remove special privileges for established sectors or enterprises. Energy importers have an opportunity to enact efficiency-promoting changes. Finally, a more supportive trade and investment climate would expand the export base, stimulate job creation, and raise potential growth.

<sup>9</sup>A hukou is a record in the system of household registration required by law in China.



Increasing competitiveness in services through further regional integration will be necessary for ASEAN economies to sustain growth in the long run. Recognizing this, the ASEAN members have committed to liberalizing and integrating their services markets, in the context of the formation of the ASEAN Economic Community at end-2015. How-

ever, progress has been modest so far, and ASEAN remains among the most restrictive regions in the world with respect to trade in services. Correcting this will require a focus on promoting regulatory cooperation and coordination through harmonization or mutual recognition, together with the development of regulatory capacity (World Bank 2015b).

**TABLE 2.1 East Asia and Pacific forecast summary***(Annual percent change unless indicated otherwise)*

	00-10 <sup>a</sup>	2011	2012	2013	2014e	2015f	2016f	2017f
<b>GDP at market prices<sup>b</sup></b>	9.0	8.3	7.4	7.1	6.9	6.7	6.7	6.6
<i>(Average including countries with full national accounts and balance of payments data only)<sup>c</sup></i>								
<b>GDP at market prices<sup>c</sup></b>	9.0	8.3	7.4	7.1	6.9	6.7	6.7	6.6
GDP per capita (units in US\$)	8.2	7.6	6.7	6.5	6.2	6.1	6.1	6.1
PPP GDP	8.8	8.1	7.3	7.0	6.7	6.6	6.6	6.5
Private consumption	6.7	9.1	7.7	6.7	6.8	7.4	7.6	7.6
Public consumption	8.4	8.9	8.3	7.9	6.5	7.4	7.5	7.4
Fixed investment	11.9	8.6	9.4	8.7	6.7	6.7	6.8	6.7
Exports, GNFS <sup>d</sup>	11.5	9.8	5.8	7.4	6.5	7.7	7.3	7.0
Imports, GNFS <sup>d</sup>	11.3	11.2	7.4	8.7	6.6	8.3	8.1	8.3
<b>Net exports, contribution to growth</b>	0.4	-0.1	-0.3	-0.2	0.1	0.0	-0.1	-0.3
<b>Consumer prices (annual average)</b>	2.6	5.6	2.8	3.0	2.6	...	...	...
<b>Fiscal balance (percent of GDP)</b>	-1.6	0.2	-0.3	-1.3	-2.3	-2.5	-2.5	-2.5
<b>Memo items: GDP</b>								
East Asia excluding China	5.1	4.8	6.3	5.2	4.7	4.9	5.4	5.4
China	10.5	9.3	7.7	7.7	7.4	7.1	7.0	6.9
Indonesia	5.3	6.2	6.0	5.6	5.0	4.7	5.5	5.5
Thailand	4.5	0.8	7.3	2.8	0.9	3.5	4.0	4.0

Source: World Bank.

World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not differ at any given moment in time.

a. Growth rates over intervals are compound weighted averages; average growth contributions, ratios and deflators are calculated as simple averages of the annual weighted averages for the region.

b. GDP at market prices and expenditure components are measured in constant 2010 U.S. dollars.

c. Sub-region aggregate excludes Fiji, Myanmar and Timor-Leste, for which data limitations prevent the forecasting of GDP components or Balance of Payments details.

d. Exports and imports of goods and non-factor services (GNFS).

**TABLE 2.2 East Asia and Pacific country forecasts***(Real GDP growth at market prices in percent, unless indicated otherwise)*

	00-10 <sup>a</sup>	2011	2012	2013	2014e	2015f	2016f	2017f
Cambodia	8.0	7.1	7.3	7.4	7.0	6.9	6.9	6.8
China	10.5	9.3	7.7	7.7	7.4	7.1	7.0	6.9
Fiji	1.6	2.7	1.7	4.6	3.8	2.5	2.4	2.6
Indonesia	5.3	6.2	6.0	5.6	5.0	4.7	5.5	5.5
Lao PDR	7.1	8.0	8.0	8.5	7.5	6.4	7.0	7.0
Malaysia	4.4	5.3	5.5	4.7	6.0	4.7	5.0	5.1
Mongolia	6.5	17.5	12.4	11.6	7.8	4.4	4.2	3.9
Myanmar	10.3	5.9	7.3	8.3	8.5	8.5	8.2	8.0
Philippines	4.8	3.7	6.8	7.2	6.1	6.5	6.5	6.3
Papua New Guinea <sup>b</sup>	3.5	10.7	8.1	5.5	7.5	16.0	5.0	2.4
Solomon Islands	2.9	10.7	4.9	3.0	0.1	3.5	3.5	3.5
Thailand	4.5	0.8	7.3	2.8	0.9	3.5	4.0	4.0
Timor-Leste <sup>c</sup>	4.3	14.7	7.8	5.4	6.6	6.8	6.9	7.0
Vietnam	6.8	6.2	5.2	5.5	6.0	6.0	6.2	6.5

Source: World Bank.

World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not significantly differ at any given moment in time.

Samoa; Tuvalu; Kiribati; Democratic People's Republic of Korea; Marshall Islands; Micronesia, Federated States; N. Mariana Islands; Palau; and Tonga are not forecast owing to data limitations.

a. GDP growth rates over intervals are compound average; current account balance shares are simple averages over the period.

b. The start of production at Papua New Guinea Liquefied Natural Gas (PNG-LNG) is expected to boost GDP growth to 16 percent and shift the current account to a surplus in 2015.

c. Non-oil GDP. Timor-Leste's total GDP, including the oil economy, is roughly four times the non-oil economy, and highly volatile, sensitive to changes in global oil prices and local production levels.



# EUROPE and CENTRAL ASIA



*Regional growth is expected to decelerate to 1.8 percent in 2015 from an already weak 2.4 percent in 2014. Plunging oil prices and geopolitical tensions, and related spillovers, including from the Russian Federation, are only partly offset by a moderate recovery in the Euro Area and the benefits from low fuel prices to net fuel importers. Recently, confidence has improved slightly, reflecting the stabilization of oil prices, the peace agreement reached in Ukraine, and policy measures implemented in several economies. Assuming a marginal recovery of oil prices in 2016-17, continued implementation of stabilization measures, and no major deterioration in geopolitical tensions, growth is expected to strengthen to an average of 3.5 percent in 2016-17. Key risks include a deepening recession in the Russian Federation and Ukraine, declining oil prices, and abrupt tightening of global financial conditions.*

## Recent Developments

After slowing to 2.4 percent in 2014 from 3.7 percent in 2013, regional growth weakened further in early 2015. This reflected spillovers from the oil price decline and geopolitical tensions, which more than offset the benefits from the moderate recovery in the Euro Area. In the eastern part of the region (Eastern Europe, South Caucasus, and Central Asia), growth slowed sharply to 1.5 percent in 2014 (one-fifth of the average in 2000–10), reflecting recessions in the Russian Federation and Ukraine, and downturns in oil-exporting economies. In contrast, growth accelerated modestly in the western part of the region, supported by tailwinds from the recovering Euro Area.<sup>1</sup>

Growth in Russia continued to slide in 2015 (a 1.9 percent contraction 2015Q1), following a modest 0.6 percent expansion in 2014. This reflected the impact of sharply lower oil prices (oil accounts for

54 percent of Russia's exports) and the adverse impact of sanctions amid an ongoing trend growth slowdown related to structural bottlenecks (Figure 2.6). A plunge in export revenues, a sharp devaluation of the ruble, and trade restrictions on food imports in Russia lifted inflation into double-digits. The contraction of real incomes and purchasing power weighed on consumer spending, which had been the single largest contributor to growth since 2012.<sup>2</sup> Investment also shrank on falling business confidence, tightened financing conditions, and restricted access to international capital markets as a result of sanctions.

Decisive policy actions and resources from the Reserve Fund have cushioned the contraction in Russia in 2015 (World Bank 2015f), but resulted in significantly eroded buffers. Key stabilization policy measures included the switch to the free-float on November 10, 2014, a policy rate hike in December 2014 which helped to bolster confidence in currency markets, and the swift bank recapitalization program in December 2014.<sup>3</sup> Trade and current account balances improved, helped by the weaker ru-

The main authors of this section are Ekaterine Vashakmadze and Allen Dennis with contributions from Jungjin Lee.

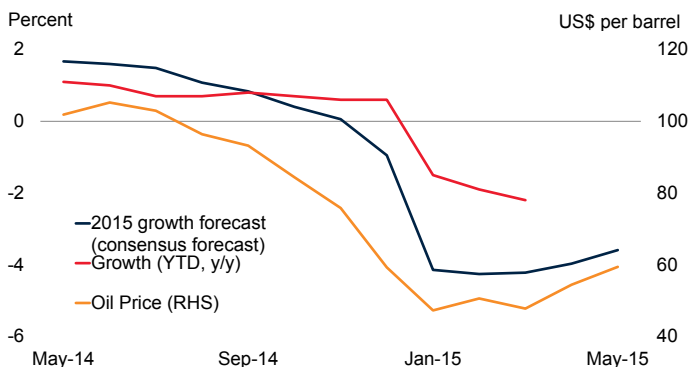
<sup>1</sup>The eastern part of the region comprises Eastern Europe (Belarus, Moldova, and Ukraine), South Caucasus (Armenia, Azerbaijan and Georgia), and Central Asia (Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan). The western part of the region includes Central and Southeastern Europe (Bulgaria, Hungary, and Romania) and the Western Balkans (Albania, Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia, Montenegro, Serbia), and Turkey.

<sup>2</sup>The share of consumption in GDP increased from 62.3 percent in 2001 to 83.3 percent in 2014.

<sup>3</sup>Net capital outflows from Russia slowed to US\$32.6 billion in the first quarter of 2015, compared to US\$77.4 billion in 2014Q4, and US\$48 billion in 2014Q1.

### FIGURE 2.6 Russian Federation: Growth and oil price

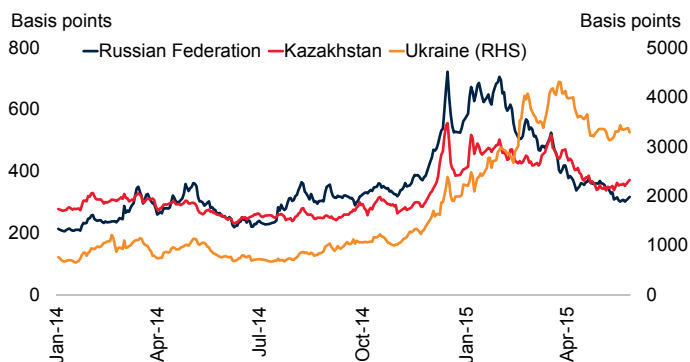
A sharp decline in oil prices and the impact of sanctions have dampened activity in Russia.



Source: World Bank and Consensus Forecasts.

### FIGURE 2.7 Selected economies, EMBI spreads

Confidence has improved and spreads eased on a peace agreement in Ukraine, stabilization of oil prices and policy actions.



Source: Bloomberg; J.P. Morgan; Haver.

Note: J.P. Morgan Emerging Market Bond Index global sovereign spreads.

ble, related decline in imports and expansion of exports, despite a 34 percent decline in the nominal value of oil exports. Beginning in February, the ruble and asset prices recovered some of their earlier losses, monthly inflation eased, and interest rate spreads declined to their October 2014 levels (Figure 2.7). The fiscal deficit is projected to increase to 3.5 percent of GDP in 2015, from 1.3 percent in 2014, even though proposed amendments to the 2015 federal budget imply some consolidation of expenditures, and could severely deplete the Reserve Fund (currently equal to 4.7 percent of GDP).

In Kazakhstan, growth declined to 4.3 percent in 2014, half of the average rate in 2000–10, and continued to ease in 2015, despite fiscal stimulus mostly

financed from the country's oil fund.<sup>4</sup> This reflects the combination of falling oil prices (crude petroleum oil accounts for about 70 percent of exports), recession in Russia (exports to Russia accounted for around 7 percent of exports in 2010–14), declining confidence and lower capital inflows. Unlike Russia, Kazakhstan relied heavily on foreign exchange reserves to defend the exchange rate peg after a 19 percent devaluation implemented in February 2014. This was done to mitigate depreciation-induced inflation, and to buffer corporate and household balance sheets with large liabilities denominated in U.S. dollars. Despite weaker domestic demand and slower import growth, the current account surplus has narrowed, as a result of the sharp drop in commodity exports. Fiscal balances have deteriorated significantly. A 3 percent deficit is projected in 2015, largely reflecting lower revenues from oil exports (World Bank 2015g). Spreads eased from December 2014 peaks, but as of April 2015 are higher than in Russia.

In Azerbaijan, growth decelerated to 2.8 percent in 2014, reflecting low oil prices, interruptions in oil sector output, and a sharp deceleration of non-oil GDP growth due to declining public investment. Both current account and fiscal surpluses declined sharply. The current account surplus is projected to decline to 3.9 percent of GDP in 2015, from 14.1 percent in 2014, despite a 34 percent devaluation of the manat in February 2015.

In Ukraine, output contracted by 6.8 percent in 2014, reflecting a deep decline in the conflict-affected East and a moderate recession in the rest of the country. Exports fell sharply, as exports to Russia (one-quarter of exports in 2010–14) dropped by one-third. Despite a drawdown of official reserves to 1.6 months of imports (January 2015), the exchange rate of the hryvnia against the U.S. dollar tripled between end-December 2013 and end-February 2015. Depreciation and administered price increases contributed to an increase in inflation to 60.9 percent in April 2015 (Figure 2.8). Banks have come under considerable stress, facing worsening asset quality (with nonperforming loans exceeding 30 percent of

<sup>4</sup>Additional fiscal resources—amounting to about 7 percent of GDP, to be implemented over the period 2015–19, from the oil fund and international financial institutions—have been allocated to cushion the impact of lower oil prices on activity in the medium term.



total loans), weakening profitability and large deposit withdrawals amounting to one-quarter of deposits (12 percent of GDP) since January 2014.<sup>5</sup> Following the ceasefire agreement signed in February, the IMF approved a four-year support program for Ukraine in March 2015.<sup>6</sup> This, together with the immediate disbursement of the first US\$5 billion tranche in March, led to stabilization of Ukrainian hryvnia and easing of spreads from their February peaks.<sup>7</sup>

Almost all economies in the region, have been negatively affected by the spillovers from the recession in Russia and Ukraine, weakening confidence related to the on-going geopolitical tensions, and growth slowdown in oil-exporting Azerbaijan and Kazakhstan, to various degrees. Only Uzbekistan and Turkmenistan, two relatively closed, resource-rich economies with strong buffers and linkages with the East and South East Asia regions, were reportedly less affected by the commodity price declines and regional headwinds. In the eastern part of the region, these regional headwinds had significant negative repercussions on the region's oil-importing economies through trade, investment, and remittances (Figures 2.9, 2.10, and 2.11), which more than offset the benefits of low oil prices. Activity weakened and exchange rate pressures increased in Armenia, Belarus, Georgia, the Kyrgyz Republic, Moldova, and Tajikistan. Exports slowed in Armenia, Belarus, and Georgia, as did remittance flows to Georgia, the Kyrgyz Republic, Moldova, and Tajikistan. With most imports invoiced in U.S. dollars, and foreign exchange receipts in rubles, the slide of the ruble and the strengthening of the U.S. dollar triggered a deterioration in the terms of trade. The resulting depreciation of local currencies raised inflation in several countries, despite lower oil prices. Central banks have responded to depreciation pressures with interest rate hikes (Armenia, Belarus, the Kyrgyz Republic, Moldova, and Tajikistan; see Figures

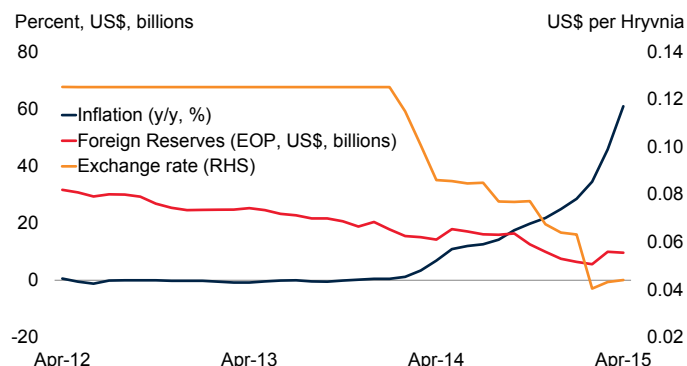
<sup>5</sup>Estimates of nonperforming loans vary significantly from 19 percent of total loans (WDI, National bank of Ukraine, IMF Financial Stability Indicators) to 40 percent (pre-2008 definition).

<sup>6</sup>The IMF estimated as part of the Extended Fund Facility (EFF) program that Ukraine faces a financing gap of about US\$40 billion (one-third of 2014 GDP) for 2015-18 and identifies sources to meet the financing gap (IMF 2015b).

<sup>7</sup>Despite this improvement, Ukrainian spreads are still among the highest globally.

**FIGURE 2.8 Ukraine: Recent developments**

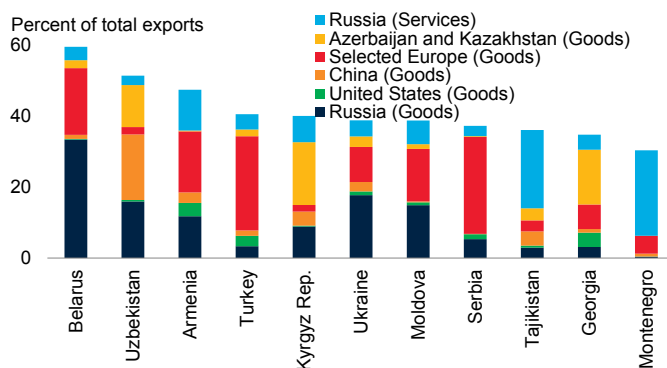
Despite a drawdown of official reserves, the hryvnia depreciated sharply and inflation spiked above 45 percent.



Source: World Bank and Haver Analytics.

**FIGURE 2.9 Selected economies: Exports by selected destinations (average 2011–14)**

Almost all economies in the region have been affected by spillovers from oil exporters in the region through trade.



Source: World Bank; IMF; Bank of Russia.

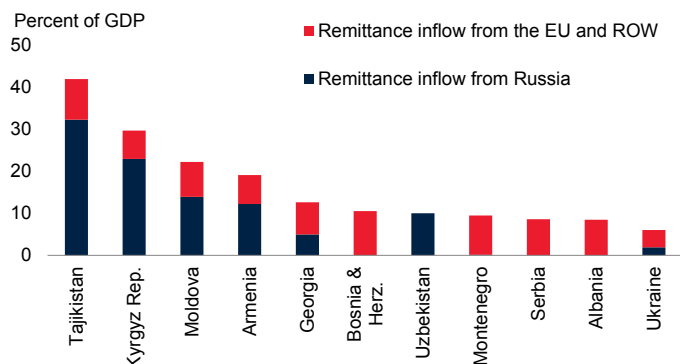
Note: Average does not capture the structural shifts (e.g. in Georgia, Moldova, Ukraine). Selected Europe includes ten largest European importers including Germany, France, UK, Italy, Belgium, Spain, Switzerland, Austria and Sweden.

2.12 and 2.13) further dampening domestic demand and activity.

In the western part of the region, a stronger-than-expected recovery in the Euro Area offset other headwinds, reflecting closer integration with the Euro Area. Growth accelerated to 2.8 percent in 2014 from 2.4 percent in 2013, led by Hungary and several high-income countries (Czech Republic, Poland, the Slovak Republic and Slovenia). The nascent recovery has reflected a pick-up in consumer and business confidence and has been supported by lower fuel and food prices, and accommodative policies.

**FIGURE 2.10 Selected economies: Remittances inflows, 2014**

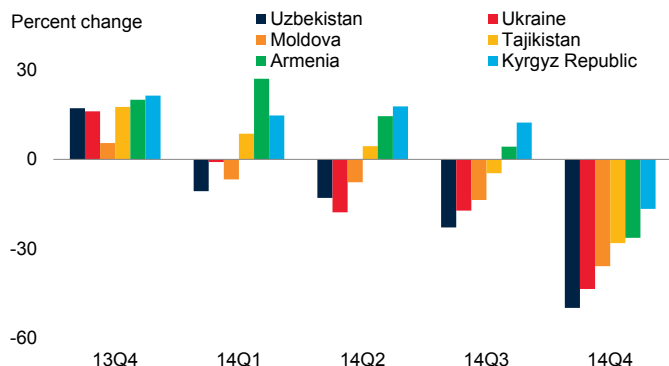
Several smaller oil-importing countries have been affected by spillovers from oil exporters through falling remittances.



Source: World Bank; national central banks, and national statistic agencies.

**FIGURE 2.11 Selected economies: Remittances inflows from Russia**

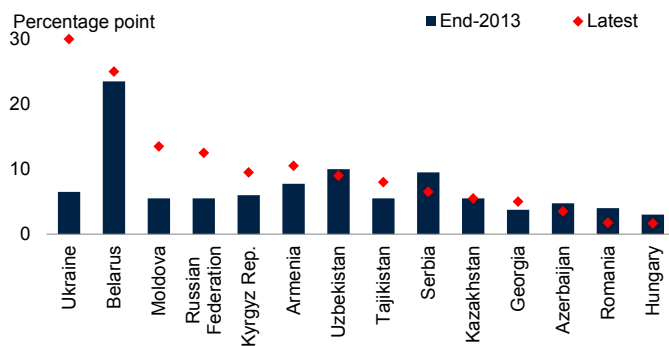
Remittances slowed sharply in the last quarter of 2014.



Source: World Bank; Central Bank of Russia.

**FIGURE 2.12 Selected economies: Central bank policy rates**

Local currencies in the affected economies came under pressure, prompting central banks to hike interest rates.



Source: Central Bank News.  
Note: "Latest" values are policy rates as of May 26, 2015.

Headline inflation has fallen to near zero in several countries thanks to lower energy prices (Figure 2.14). With output well below potential levels, core inflation also remains generally low. The recovery has been uneven across the sub-region, held back by legacies of the global financial crisis, especially still-stretched balance sheets (Bulgaria, Serbia and to a lesser extent Romania). Investment has remained subdued, as high corporate debt overhangs, non-performing loans, and weak demand have continued to constrain lending to the corporate sector, notwithstanding lower interest rates. The Former Yugoslav Republic of Macedonia has performed relatively better than its neighbors over the past few years, thanks to foreign direct investments in its free technological zones, and public investment stimulus. For some economies in the region, investor confidence has also been dented by the conflict between Russia and Ukraine, and economic and financial stress in Greece. The contribution from net exports has been weak, despite the better than expected recovery in the Euro Area (Figure 2.15). This reflects stronger competitive pressures from the economies that have undergone sharp devaluations and a contraction in exports to Russia. Country-specific factors, such as a banking sector turmoil in Bulgaria in mid-2014, the after-effects of floods in Serbia, and high unemployment in the Western Balkan economies, account for the weakness in economic activity.

Turkey's economy has slowed, gaining little support from lower oil prices and tailwinds from the global recovery. Softer-than-expected activity reflects tighter macroprudential measures and policy uncertainty, compounded by weak investor confidence as reflected in widening five-year credit default swaps spreads, rising yields of 10-year Turkish government bonds, and capital outflows (World Bank 2015h). Inflation declined from its mid-2014 peak in line with the decline in oil prices, but remains above-target as a result of capacity constraints and depreciation. Weak domestic demand, low oil prices, and resilient exports have improved the current account balance. However, vulnerabilities remain, especially the large share of the current account deficit (still above 5 percent of GDP) financed by volatile portfolio flows.

## Outlook

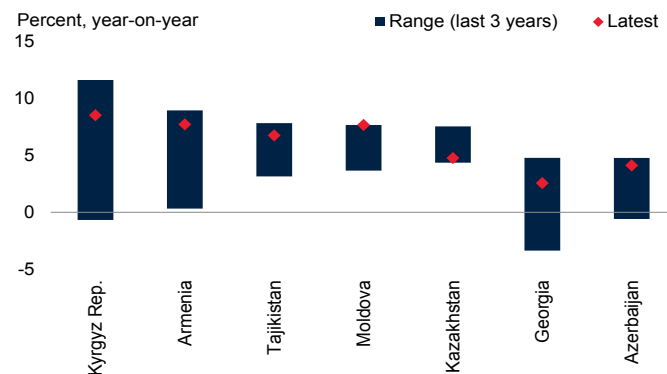
The outlook for the region has deteriorated markedly, with growth in developing Europe and Central Asia expected to drop to 1.8 percent in 2015 despite the on-going global recovery. The main factors are spillovers from low oil prices, geopolitical tensions, and recessions in Russia and Ukraine (World Bank 2015i). Assuming slightly stronger oil prices in 2016–17 (World Bank 2015j), effective macroeconomic and growth-stabilizing policy actions, and no further deterioration of the geopolitical climate, regional growth is expected to strengthen to an average 3.5 percent in 2016–17.

In Russia, a contraction in economic activity by 2.7 percent this year is expected to be followed by a modest recovery in 2016, supported by policies which will continue to facilitate the adjustment of the economy to a new low oil price environment. Growth should strengthen to 2.5 percent in 2017 as investment recovers. However, it will remain below potential, at about half of the average in 2000–10, held back by remaining structural bottlenecks. This outlook is highly uncertain and assumes a modest recovery in oil prices and no major deterioration in geopolitical tensions. For the other oil exporters in the region, prospects also remain closely tied to oil prices. The modest strengthening of prices expected over the forecast horizon should gradually support activity in these economies. In Kazakhstan, growth is projected to decline to 1.7 percent in 2015 as production delays in the Kashagan oil field persist, but strengthen to an average of 3.5 percent in 2016–17. Lower oil prices are expected to result in a current account deficit in 2015, for the first time since 2009. In South Caucasus and Central Asia (including Kazakhstan), growth is expected to bottom out in 2015 and gradually strengthen to 2.9 percent and 4.9 percent in 2016–17, respectively, as conditions in the regions normalize.

Ukraine’s economy is projected to contract by 7.5 percent in 2015. The prospects for a recovery in 2016–17 are highly uncertain, hinging upon a continued ceasefire and eventual peaceful resolution of the conflict in the East, a closing of the large financing gap, and continued implementation of the reform agenda under the IMF program. The conflict has destroyed or damaged sizeable parts of the production and export base in the eastern regions of Ukraine, disrupted trade and investment links, and

**FIGURE 2.13 Selected economies: Inflation**

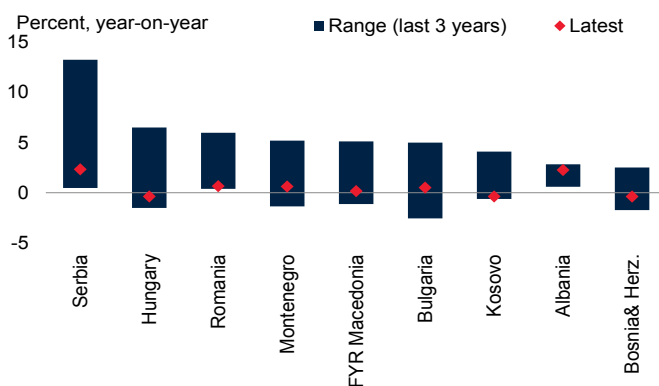
*Inflation spiked, reflecting sharp depreciation of local currencies.*



Source: World Bank and Haver Analytics.  
Note: “Latest” values are for April 2015 except for Kyrgyz Rep. (March) and Tajikistan (February).

**FIGURE 2.14 Selected economies: Inflation**

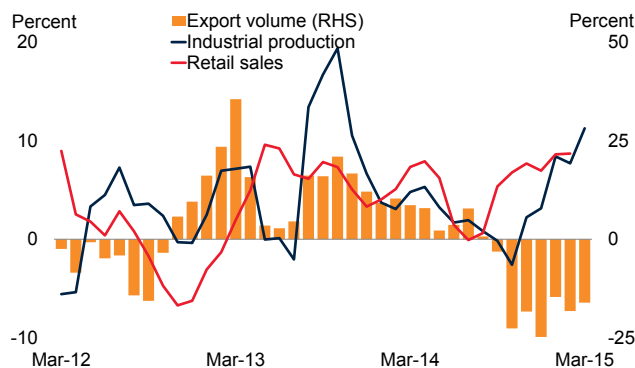
*In the western part of the region, more closely integrated with the Euro Area, inflation fell sharply with lower oil prices.*



Source: World Bank and Haver Analytics.  
Note: “Latest” values are for April 2015 except for Montenegro (February).

**FIGURE 2.15 EU-Central and Southeastern Europe: Drivers of growth**

*The recovery in the western part of ECA was helped by a pick-up in consumer and business confidence.*



Source: World Bank and Haver Analytics.  
Note: The figure reflects growth rates of 3 month moving averages. Weighted average of available series for Albania, Bulgaria, Bosnia and Herzegovina, Hungary, Kosovo, FYR Macedonia, Montenegro, Romania, and Serbia.

reduced medium-term potential growth. Domestic demand will be dampened by fiscal consolidation measures, including cuts in pensions and utility subsidies. Some price and structural reforms—including sizable energy tariff increases, bank restructuring, governance reforms of state-owned enterprises, and legal changes aimed at combating corruption and strengthening the rule of law—are underway. They are necessary for restoring macroeconomic stability, boosting investor confidence, and anchoring inflation expectations but are likely to weigh on growth in the short-term.

The western part of the region is expected to see growth remaining flat in 2015 (2.8 percent). While a significant improvement from the previous two years, it remains below the region's potential and is insufficient to significantly reduce high and persistent unemployment. Activity is projected to strengthen gradually to 3.3 percent in 2016–17. Domestic demand is expected to continue to recover, as household real disposable incomes rise, energy cost remains low, and low inflation allows further monetary policy rate cuts. As activity in the Euro Area gains momentum, exports are expected to pick up. Some countries in the region should also benefit substantially from EU structural funds (Croatia, Romania, and Slovenia). Nonetheless, at least over the short term, high non-performing loans (NPLs) and a heavy debt burden, will continue to limit credit growth. Elevated government debt will limit room for fiscal support to growth (Albania, Croatia, Hungary, FYR Macedonia, Montenegro, and Serbia). The nature and impact of these financial constraints varies considerably across countries. In Bulgaria, for example, the effects of the 2014 domestic banking turmoil linger. Growth in the Western Balkans is expected to be a modest 1.5 percent in 2015 (up from 0.4 percent in 2014), as a pick-up in net exports is expected to offset slowing investment and consumption. The Western Balkans remain weighed down by the lack of new credit and non-performing loans are the highest in the ECA region (above 16 percent).

In Turkey, activity is expected to be subdued in the first half of 2015, but growth is projected at 3 percent in 2015. Households and corporations are expected to postpone spending due to policy uncertainty and in advance of the June elections.

Fiscal policy is expected to remain accommodative until June. Private spending is expected to recover after the June elections, assuming that political uncertainty is resolved. Soft fuel prices and robust exports will contribute to a further reduction in Turkey's trade deficit. External financing requirements are expected to decline by US\$20 billion (to about US\$200 billion) in 2015. Maturing external debt totaling US\$166 billion in 2015 will be rolled over.

## Risks

The risks for the region remain tilted to the downside. Key risks include further declines in oil prices, escalation of geopolitical tensions, and abrupt tightening of global financial conditions. A weaker-than-expected global recovery and unfavorable resolution of problems between Greece and its creditors present additional risks to the outlook.

Should oil prices decline or geopolitical tensions in the region escalate, the consequence could be a deeper recession in the Russian Federation in 2015 which could also extend to 2016, growth slowdown in other major oil exporters, and a delayed recovery in Ukraine—and a sharp slowdown in regional growth. Policy changes related to the establishment of the Eurasian Economic Union, specifically the restrictions on migrant workers to the Russian Federation from non-member states may lead to a significant number of labor migrants returning to Tajikistan and Uzbekistan. Net energy exporters in the region would struggle to adjust to further falls in oil prices. For the region's oil importers, the windfall to households via higher disposable incomes and to firms via lower production costs would accelerate the tailwinds of a recovery, but this will not fully offset the opposing forces.

Any faltering in the global economic recovery, especially in the Euro Area, would pose risk to the region's predicted expansion (Chapter 1). It would impact exports and undermine business confidence. With investment already constrained by deep-rooted structural factors (including high NPLs, elevated debt, and weak competitiveness), domestic demand alone will be insufficient to bolster growth.

A disorderly adjustment in global financial markets to the anticipated tightening of U.S. monetary pol-

icy could disrupt financial markets in the region. Turkey and other economies in Central Asia remain particularly exposed as their economies are relatively more reliant on dollar inflows than those in the Central and South Eastern Europe region, which carry more euro or Swiss franc liabilities on their balance sheets.

Economic and financial stress in Greece presents an additional risk to the regional outlook, although the exposures of other parts of the Euro Area have diminished since 2010. Foreign bank exposures to Greek sovereign and non-sovereign debt have declined sharply. The ECB's quantitative easing program, which began in March, has shielded sovereign bonds in other peripheral countries from contagion risks. Several new institutional mechanisms could help contain contagion.<sup>8</sup> Finally, the Euro Area has emerged from recession, with recoveries gathering strength in Spain, Portugal, and (especially) Ireland. There are pockets of vulnerabilities among developing countries, however. Banking systems in Albania, Bulgaria, FYR Macedonia, Romania, and Serbia remain vulnerable to contagion through sizeable local subsidiaries of Greek banks. In Bulgaria and Albania, for example, a respective 23 percent and 18 percent of banking assets are held by Greek banks, presenting risks of spillovers from potential banking system stress in Greece. Bulgaria's exposure to Greece through trade has declined over the past few years, but is still significant. Exports to Greece declined from 4.1 percent of GDP in 2008 to 3.6 percent of GDP in 2014, the highest share of any country in the ECA region.<sup>9</sup> Albania receives remittances from Greece equivalent to 3.7 percent of its GDP.

Recent floods in Bosnia and Serbia, which destroyed about 15 percent of Bosnia's output and 2 percent of Serbia's, point to the wider vulnerabilities unfavorable weather conditions pose to the region. Many of the countries in the region are facing warmer temperatures, a changing hydrology, and more extreme climatic conditions (droughts, floods, heat waves and

forest fires) with increased frequency. In addition to the impact on crops and livestock, the changing seasonality of river flows undermines hydropower production, a particularly important sector in Albania.

## Policy Challenges

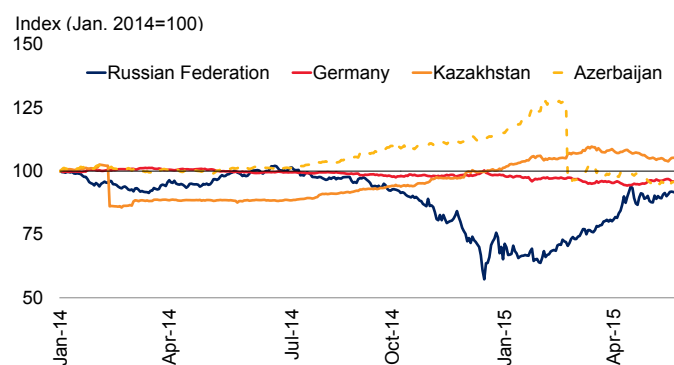
### Monetary policy challenges

Spillovers from the plunge in oil prices and geopolitical tensions have complicated monetary policies in the eastern part of the region, but eased monetary policy constraints in the west.

In two relatively large oil-exporting economies of the region, Azerbaijan and Kazakhstan, policy flexibility has been constrained by elevated inflation and balance sheet concerns (Figures 2.16 and 2.17). Efforts to stem currency depreciations in these countries resulted in some losses of reserves and slow external adjustments (current account balances are expected to deteriorate in both countries in 2015). Russia, where external pressures were stronger, allowed greater exchange rate flexibility. This facilitated current account adjustments, but contributed to higher inflation and increased financial stability risks because of the large share of foreign currency-denominated debt. In general, such debt has risen considerably in the region since 2011 and poses a significant

**FIGURE 2.16 Selected economies: Real effective exchange rates**

*Exchange rates helped absorb external shocks in Russia, but policy flexibility has been constrained by elevated inflation and balance sheet concerns in other oil-exporting economies, particularly Kazakhstan.*



Source: World Bank and Haver Analytics.  
Note: Decline denotes depreciation.

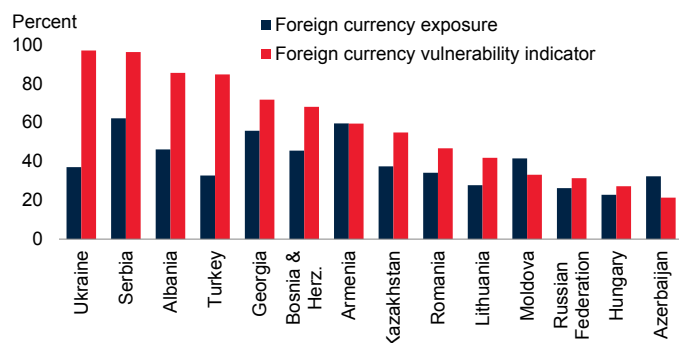
<sup>8</sup>The €500 billion European Stability Mechanism may serve as a buffer to mitigate short-term volatility and pressures on periphery banks and sovereign debt issuers; the new bank resolution system could help insulate sovereign debt issuers from banking system stress; the new single supervisory system and the 2014 asset quality review have improved confidence in Euro Area banks and removed uncertainties about Greek debt holding.

<sup>9</sup>Germany has replaced Greece as Bulgaria's main export destination, with exports to Germany accounting for 6.3 percent of GDP. Greece is now the fifth largest export destination for Bulgaria's exports after Germany, Turkey, Italy, and Romania.



**FIGURE 2.17 Foreign currency exposure and foreign currency vulnerability indicators, 2013**

*In oil-importing economies, high dollarization constrains policy flexibility.*



Sources: Moody's Statistical Handbook.

Note: Foreign currency exposure is measured as total foreign currency deposits in the domestic banking system/ total deposits in the domestic banking system. Foreign currency vulnerability indicator is defined as (total foreign currency deposits in the domestic banking system)/ (official foreign exchange reserves + foreign assets of domestic banks). Belarus's dollarization was 62.2, its dollarization vulnerability 193.7 in 2013. Alternative estimates show dollarization in Azerbaijan at 50%, in Kazakhstan around 55%, in Georgia above 60%, and in Armenia above 70 percent. The World Bank team estimates dollarization vulnerability in Belarus at 82.6% on the net basis.

challenges to policy makers. Tightening global financial conditions over the medium term will intensify these challenges. With commodity prices expected to remain low, diversification will benefit from greater exchange rate flexibility and stricter macroprudential regulations will help contain risks related to private sector balance sheets.

In contrast, in the western part of the region, low oil prices contributed to lower inflation and improved trade and current account deficits, and eased constraints on monetary policy. In many countries in Europe (Hungary, Croatia, FYR Macedonia, Montenegro, and Slovenia), lower oil prices have added to the deflationary pressures. Central banks in a number of countries cut policy rates to support activity in 2015 (Hungary, Romania, Serbia, and Turkey). Interest rate cuts in oil-importing countries (especially those with a rapidly rising stock of external debt such as Turkey), however, may have to end once the gradual normalization of U.S. monetary policy gets under way.

### Need to reassess fiscal policies

Many economies affected by regional spillovers relaxed fiscal policies to avoid sharp slowdowns. Oil-importing countries not affected by the regional spillovers took the opportunity to reform energy taxes, and to build fiscal space.

Almost all oil-exporting countries in the region have significant buffers in the form of foreign assets. This has allowed them to avoid steep spending cuts, despite significant loss in oil revenues, or implement countercyclical expenditure increases. Fiscal break-even oil prices are estimated to remain at or over US\$90 per barrel (Kazakhstan and Azerbaijan), and considerably above the US\$58–64 projected for 2015–16 to cover government spending, which has increased in recent years in response to rising social pressures and infrastructure development goals. As a result of the oil price decline, all countries in the region are expected to run fiscal deficits in 2015 except Turkmenistan and Uzbekistan. With buffers eroding rapidly, and lower oil prices expected to persist for a prolonged period, most countries will need to re-assess medium-term spending plans and will need to adjust gradually to the new realities in the global oil market (IMF 2015c).

Oil-importers with close economic ties to oil exporters may need to tighten fiscal policy in the medium-term to ensure the sustainability of high government or quasi-government debt, despite slowing growth (Armenia, Georgia, Kyrgyz Republic, and Moldova). In contrast, for oil-importers not affected by the regional spillovers, the fall in oil prices could generate substantial fiscal savings: In this way, the tailwinds of low oil prices provide an opportunity for these countries to either build fiscal space, which would allow an effective counter-cyclical response during the next cyclical slowdown, or to invest in critical infrastructure or human capital.

### Structural reforms

As growth in high-income countries picks up, convergence of GDP per capita between high-income and developing countries of the region is expected to slow. Sustained lower oil prices will reduce real incomes and purchasing power in many oil-exporting economies and the economies closely linked to them. Unemployment in oil-importers, particularly in the Western Balkans, remains high (Figure 2.18). To accelerate growth and job creation, and to avoid a significant widening of the income gap, requires stepping up the implementation of structural reforms in the entire region.

Many countries in the ECA region remain well below the frontier of best practices with regard to creating a business environment conducive to productiv-

ity growth. Barriers to open markets and access to finance are well above-average in Azerbaijan, the Kyrgyz Republic, and Ukraine (World Bank 2015k). Reducing these barriers would spur productivity and increase resilience to external shocks. While reform needs are country specific, they fall into a few categories. These include shifting the composition of growth away from consumption (Georgia, Turkey, and Ukraine), or natural resources (Azerbaijan, Kazakhstan, Turkmenistan, and Uzbekistan); easing infrastructure bottlenecks; improving education; reforming labor markets; enhancing competition and easing administrative burdens; improving access to private and multilateral financing; reducing barriers to trade and facilitating regional integration; and reforming energy subsidies.

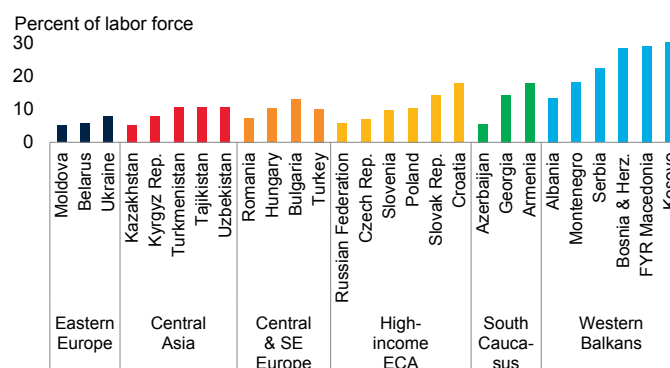
A cross cutting theme for the region is the need for a comprehensive financial sector reforms to clean up bank balance sheets. Although bank capital and provisioning are above regulatory minimums, high non-performing loans (Figures 2.19) continue to weigh on growth—despite recent improvements in Hungary and Romania—by reducing the profitability of banks and constraining new lending for productive activities. High foreign liabilities pose additional risks to the banking sector (Figure 2.20). This could result in significant contingent liabilities to the public sector (IMF 2015d). Measures to improve bank balance sheets could include better collateral enforcement, fostering more out-of-court debt restructuring, strengthening insolvency frameworks, and clearing bottlenecks in overloaded court systems.

Current low commodity prices are also a reminder to commodity-exporting countries of the importance of diversification. Diversification efforts could include efforts to build institutions that reduce economic volatility, change incentives away from non-tradables, encourage export diversification, and build human capital (see Chapter 1 for additional discussion).

Some reforms can take a long time to feed into higher productivity and sustained growth. However, some reforms can have a considerable effect on economic activity even in the short term. For example, policies can ease short-term transition costs by assisting workers to move to new jobs, or they can speed up the repair of capital bases of lending institutions (see Chapter 1 for additional discussion).

## FIGURE 2.18 Unemployment, 2013

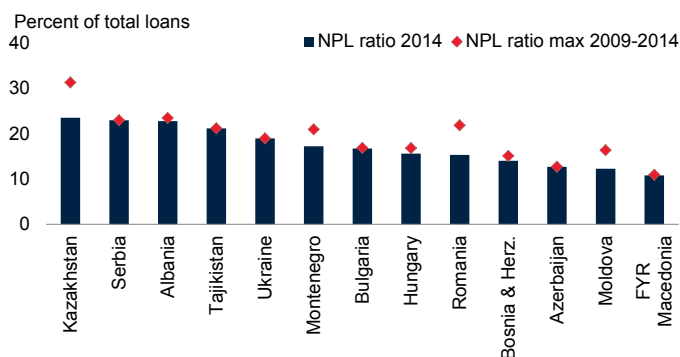
Despite the nascent recovery, output remains below potential and unemployment rates high in the western part of the region.



Source: World Bank. Haver Analytics. Eurostat. Kosovo Agency of Statistics.  
Note: Informal sector (often large) may not be included in the data. ILO definition. May differ from the official estimates, particularly for Belarus.

## FIGURE 2.19 Non-performing loans (NPL) ratios

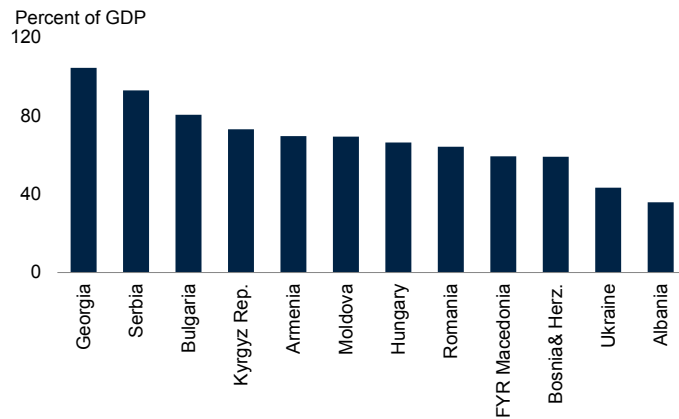
Comprehensive financial sector reforms are needed to strengthen bank balance sheets.



Source: IMF, Financial Soundness Indicators.  
Note: Alternative estimates (using strict definitions) for Ukraine assess nonperforming loans at around 32 percent of total loans in 2014.

In Ukraine, which faces extraordinary challenges, the reform agenda should focus on governance reforms, including anti-corruption and judicial measures, deregulation and tax administration reforms, and reforms of state-owned enterprises to improve corporate governance and reduce fiscal risks. Broader energy sector reforms will increase energy efficiency and foster energy independence.

Finally, recent floods in Bosnia and Serbia, which destroyed about 15 percent of Bosnia's output and 2 percent of Serbia's, point to the wider vulnerabilities unfavorable weather conditions pose to the region. Many of the countries in the region are facing

**FIGURE 2.20 Net foreign liabilities, 2014***High foreign liabilities pose risks to the banking sector.*

Source: World Bank and IMF International Financial Statistics.

Note: Latest data available for Albania, Bosnia and Herzegovina, Bulgaria, Kyrgyz Republic, Romania, Serbia, and Ukraine is for 2013.

warmer temperatures, a changing hydrology, and more extreme climatic conditions (droughts, floods, heat waves, forest fires, earthquakes), some of them with increased frequency. In addition to the impact on crops and livestock, the changing seasonality of river flows undermines hydropower production, a particularly important sector in Albania, the Kyrgyz Republic, and Tajikistan. Planning for extreme weather events will help to support preparedness for a variety of other emergencies.

**TABLE 2.3 Europe and Central Asia forecast summary***(Annual percent change unless indicated otherwise)*

	00-10 <sup>a</sup>	2011	2012	2013	2014e	2015f	2016f	2017f
<b>Developing ECA, GDP at market prices<sup>b</sup></b>	4.6	6.1	1.9	3.7	2.4	1.8	3.4	3.6
<b>Developing ECA, GDP at market prices, excl. Ukraine</b>	4.6	6.2	2.1	4.1	3.2	2.6	3.5	3.7
(Average including countries with full national accounts and balance of payments data only)								
<b>Developing ECA, GDP at market prices</b>	4.6	6.2	1.9	3.7	2.4	1.8	3.3	3.6
GDP per capita (units in US\$)	4.1	5.4	1.2	3.0	1.7	1.2	2.7	3.0
PPP GDP	4.8	5.9	2.0	3.6	2.2	1.5	3.3	3.6
Private consumption	5.2	7.0	2.3	5.1	2.1	2.4	3.5	3.8
Public consumption	3.1	2.7	4.1	3.8	4.3	3.9	3.5	3.7
Fixed investment	6.1	10.2	-0.7	1.4	1.8	0.1	2.6	3.1
Exports, GNFS <sup>c</sup>	5.9	8.4	4.7	2.0	3.0	4.3	5.0	5.0
Imports, GNFS <sup>c</sup>	6.6	11.0	2.3	4.7	1.5	4.6	5.6	6.4
<b>Net exports, contribution to growth</b>	-0.3	-1.2	0.8	-1.1	0.5	-0.2	-0.4	-0.7
<b>Consumer prices (annual average)</b>	13.9	8.2	8.7	6.2	7.3	...	...	...
<b>Fiscal balance (percent of GDP)</b>	-4.3	0.7	-0.6	-1.2	-1.8	-2.2	-1.7	-1.5
<b>Memo items: GDP</b>								
Broader geographic region <sup>d</sup>	4.6	4.8	2.2	2.2	1.8	0.3	2.3	3.1
EU, Central and Southeastern Europe, West Balkans, and Turkey <sup>e</sup>	3.7	4.9	1.0	2.4	2.8	2.8	3.3	3.4
EU-Central and Southeastern Europe	3.5	2.8	0.4	1.2	2.8	2.8	3.0	3.2
Eastern Europe <sup>f</sup>	5.1	5.6	0.6	0.6	-4.1	-6.1	1.1	2.4
Western Balkans <sup>g</sup>	3.8	1.9	-0.3	2.5	0.4	1.5	2.5	2.9
South Caucasus <sup>h</sup>	12.0	1.8	3.5	5.1	3.2	1.5	2.7	3.1
Central Asia <sup>i</sup>	8.2	8.1	5.9	6.8	5.5	3.4	4.4	5.4
Russian Federation	5.1	4.3	3.4	1.3	0.6	-2.7	0.7	2.5
Turkey	3.9	8.8	2.1	4.2	2.9	3.0	3.9	3.7
Ukraine	4.3	5.5	0.2	0.0	-6.8	-7.5	2.0	3.0

Source: World Bank.

World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not differ at any given moment in time.

a. Growth rates over intervals are compound weighted averages; average growth contributions, ratios and deflators are calculated as simple averages of the annual weighted averages for the region.

b. GDP at market prices and expenditure components are measured in constant 2010 U.S. dollars.

c. Exports and imports of goods and non-factor services (GNFS).

d. Broader geographic region includes developing ECA and 6 recently transitioned high-income countries (Croatia, Czech Republic, Poland, Russian Federation, Slovak Republic, and Slovenia.)

e. EU: Croatia, Czech Republic, Poland, Slovak Republic, Slovenia. Central and Southeastern Europe: Bulgaria, Hungary, Romania.

f. Eastern Europe: Belarus, Moldova, Ukraine.

g. Western Balkans: Albania; Bosnia and Herzegovina; FYR Macedonia; Montenegro; Serbia.

h. South Caucasus: Armenia; Azerbaijan; Georgia.

i. Central Asia: Kazakhstan, Kyrgyz Republic, Tajikistan, Turkmenistan, Uzbekistan.

**TABLE 2.4 Europe and Central Asia country forecasts***(Real GDP growth at market prices in percent, unless indicated otherwise)*

	00–10 <sup>a</sup>	2011	2012	2013	2014e	2015f	2016f	2017f
Albania	5.2	2.5	1.6	1.4	1.9	3.0	3.5	3.5
Armenia	7.9	4.7	7.2	3.5	3.4	0.8	2.7	3.0
Azerbaijan	14.9	0.1	2.2	5.8	2.8	1.5	2.6	2.7
Belarus	7.4	5.5	1.7	1.0	1.6	-3.5	-1.0	1.0
Bosnia and Herzegovina	4.0	1.0	-1.1	2.5	0.4	2.0	2.3	2.9
Bulgaria	4.0	2.0	0.5	1.1	1.7	1.1	2.0	2.7
Georgia	6.2	7.2	6.2	3.3	4.8	2.0	3.0	5.0
Hungary	2.1	1.8	-1.5	1.5	3.6	2.4	2.5	2.7
Kazakhstan	8.3	7.5	5.0	6.0	4.3	1.7	2.9	4.1
Kosovo	6.1	4.4	2.8	3.4	2.5	3.0	3.5	3.7
Kyrgyz Republic	4.1	6.0	-0.1	10.9	3.6	1.7	3.2	4.0
FYR Macedonia	1.6	2.3	-0.5	2.7	3.5	3.5	3.8	4.0
Moldova	5.1	6.8	-0.7	9.4	4.6	-2.0	1.5	4.0
Montenegro	3.6	3.2	-2.5	3.3	1.5	3.4	2.9	2.9
Romania	4.1	1.1	0.6	3.5	2.9	3.0	3.2	3.5
Serbia	3.6	1.4	-1.0	2.6	-1.8	-0.5	1.5	2.0
Tajikistan	8.3	7.4	7.5	7.4	6.7	3.2	4.4	5.2
Turkey	3.9	8.8	2.1	4.2	2.9	3.0	3.9	3.7
Turkmenistan	13.6	14.7	11.1	10.2	10.3	8.0	9.0	9.0
Ukraine	4.3	5.5	0.2	0.0	-6.8	-7.5	2.0	3.0
Uzbekistan	6.9	8.3	8.2	8.0	8.1	7.6	7.8	8.0

	00–10 <sup>a</sup>	2011	2012	2013	2014e	2015f	2016f	2017f
<b>Recently transitioned to high-income countries<sup>b</sup></b>								
Croatia	2.5	-0.3	-2.2	-0.9	-0.4	0.5	1.2	1.5
Czech Republic	3.2	2.0	-0.8	-0.7	2.0	2.4	2.5	2.8
Poland	3.8	4.8	1.8	1.7	3.4	3.6	3.6	3.6
Russian Federation	5.1	4.3	3.4	1.3	0.6	-2.7	0.7	2.5
Slovak Republic	4.8	2.7	1.6	1.4	2.4	2.4	2.7	3.2
Slovenia	2.7	0.6	-2.6	-1.0	2.6	1.7	2.5	2.0

Source: World Bank.

World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not significantly differ at any given moment in time.

a. GDP growth rates over intervals are compound average; current account balance shares are simple averages over the period.

b. The recently high-income countries are based on World Bank's reclassification from 2004 to 2014.



# LATIN AMERICA and THE CARIBBEAN



*Facing lower prices for oil and other commodities, challenging domestic business climates and widespread droughts, growth in Latin America and the Caribbean slowed to 0.9 percent in 2014. South America, deeply affected by the oil price decline, was also impacted by domestic macroeconomic challenges among its largest economies. In contrast, developing Central and North America, along with the Caribbean, benefited from the strengthening United States, and saw an acceleration of activity. The ongoing recovery among advanced countries is expected to support external demand in the medium-term, lifting growth to an average of 1.7 percent in 2015–17. A deeper and more protracted decline in commodity prices, or a slower-than-expected recovery of the Euro Area, represent major downside risks.*

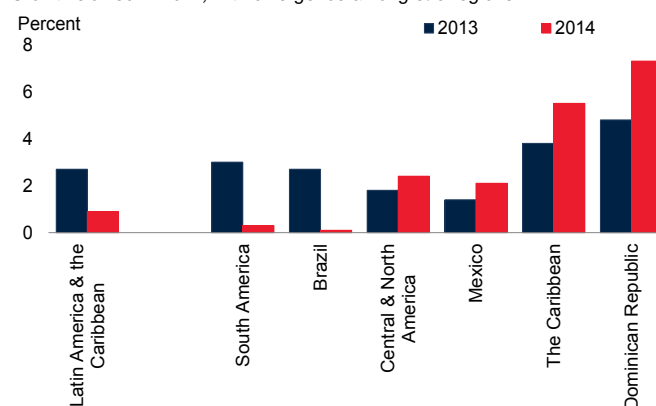
## Recent Developments

Amidst deteriorating terms of trade, challenging domestic business climates and widespread droughts, growth in Latin America and the Caribbean slowed to 0.9 percent in 2014 from 2.7 percent in 2013—the slowest in 13 years apart from the Great Recession of 2009. There were marked differences among the sub-regions: almost no growth in South America contrasted with robust expansion in developing Central and North America and the Caribbean (Figure 2.21). This divergence partly reflected the more extensive trade exposure of Central and North America and the Caribbean to the United States, compared to the heavy reliance of South America on commodity exports (Figures 2.22 and 2.23). Prices of key commodities for the region (oil, soy beans, gold, copper, and maize) declined through the second half of 2014, and remained soft in the first half of 2015. Domestic demand growth weakened. An increase in net exports largely reflected weak imports, although a bumper soy harvest in Argentina, strong gas exports from Bolivia, and large gold shipments from the Dominican Republic were positive factors.

In addition to the weakened terms of trade resulting from lower commodity prices, domestic macroeconomic challenges also contributed significantly to the slowdown in South America, as several large economies slowed down markedly, or even con-

**FIGURE 2.21 Regional GDP growth**

Growth slowed in 2014, with divergence among sub-regions.



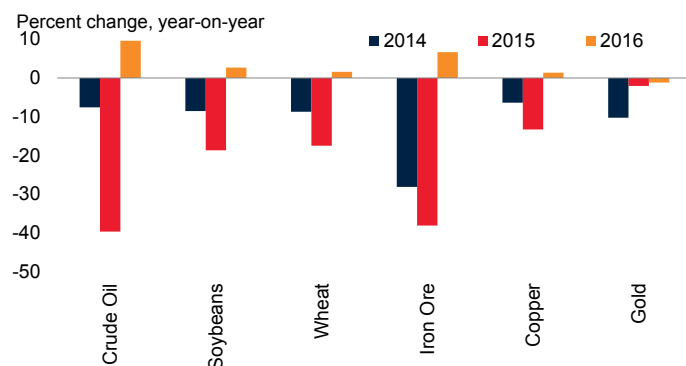
Source: World Bank.

tracted. In Argentina, modest growth was led by government consumption, while double-digit inflation rates weighed on private consumption, and weak soy bean prices dented export earnings. A sovereign rating downgrade dampened investor confidence. Despite the tourism receipts and capital investments associated with the FIFA World Cup, Brazil, the region's largest economy, stagnated. Political uncertainty surrounding the presidential election, a corruption scandal, large fiscal deficits, China's slowdown, accelerating inflation, monetary tightening and lower prices of key exports (iron ore and soy) all contributed to denting consumer and investor confidence. An extended drought led to further uncertainty surrounding water and electric-

The main author of this section is Derek Chen.

**FIGURE 2.22 Prices of key commodity exports**

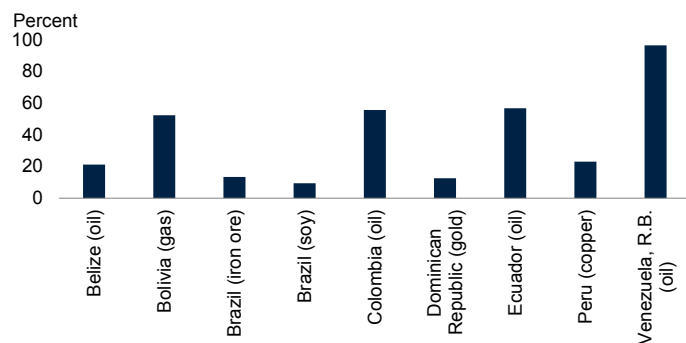
Weakness in commodity prices from 2014 carried over to 2015.



Source: World Bank.

**FIGURE 2.23 Export shares of key commodity exports, 2013**

Commodities constitute significant shares of exports.



Source: Economist Intelligence Unit.

ity supplies. In República Bolivariana de Venezuela, where oil constitutes more than 90 percent of exports, and around half of government revenue, activity contracted yet again as a result of the oil price plunge. The challenging business climate includes rampant inflation; a disorderly currency market with an overvalued official rate and dearth of foreign exchange; and pervasive price controls, which have created widespread shortages of consumer items and intermediate goods.

In contrast, growth in developing Central and North America accelerated to 2.4 percent. Led by Mexico, the sub-region saw stronger exports supported by U.S. demand that continues to gather momentum. Record-high tourism and robust mining exports lifted the Dominican Republic and other Caribbean economies, where

growth increased from 3.8 percent in 2013 to 5.5 percent in 2014.

Despite the drop in world energy and food prices, inflation remained high in some of the large economies of South America. Annual inflation reached about 65 percent in República Bolivariana de Venezuela in the second half of 2014. In Argentina, annual inflation was 15.8 percent as of April 2015. In Brazil, both headline and core inflation have risen as a result of several factors: depreciation of the *real*, increases in regulated prices, a tight labor market, and a prolonged drought that has led to a potential energy shortage as water at hydroelectric dams reaches low levels. A sharp depreciation also contributed to an increase in inflation in Colombia, where it has breached the central bank's upper target limit. Core inflation rose in most countries (except in Costa Rica, the Dominican Republic, Mexico, and Paraguay). However, partly due to falling oil and food prices, headline inflation has declined across the region, especially in oil-importing countries (Figure 2.24). On average, compared to rates in 2014, headline inflation rates in developing Central and North America have fallen by a third, while those in the Caribbean have nearly halved.

After a robust first half of 2014, overall gross capital flows to the region weakened after July (Figure 2.25). International bond issuance continues to dominate these inflows. In contrast, equity flows remain small, while bank lending has been volatile, especially in recent months. Despite the weakening in overall flows, international bond issuance by regional debtors still reached a new record in 2014, 10 percent above 2013 levels, as investors pursued yields, amidst ample global liquidity. Governments, oil and gas firms, and financial institutions accounted for the majority of issues. A surge in sovereign issuance to cover 2015 budgets (Chile, Colombia, Mexico, and Peru) outweighed the negative impact of Argentina's credit rating downgrade to selective default in July. Issuance slowed in the fourth quarter and early 2015 on concerns surrounding a corruption scandal in Brazil, the first post-crisis interest rate increase in the United States and the financial risks to Latin American borrowers from an appreciating U.S. dollar (EIU, 2015). U.S. dollar-denominated transactions

continued to account for the vast majority of total issuance, posing exchange rate risks from U.S. dollar appreciation.

Many international banks have been reluctant to lend during the balance sheet restructuring of recent years. In 2015, however, cross-border bank lending appears to be gaining some ground, with more attractive pricing and terms for borrowers. At a 10-year low in 2014, equity issuance volumes are likely to remain weak going forward, as many of uncertainties that affected the region persist, notably sharply lower oil prices, which undercut prospects for regional energy producers.

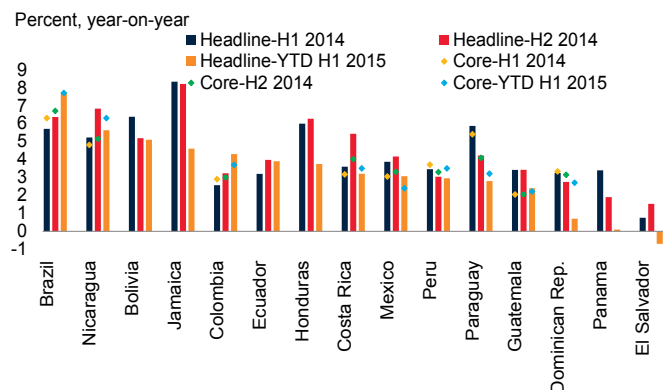
Most currencies in the region depreciated in nominal terms against the U.S. dollar. Nominal depreciations were particularly persistent in Argentina, Brazil, and Peru where soft commodity prices and/or challenging business environments have weakened the growth outlook (Figure 2.26). However, relatively high inflation rates in a number of countries across the region caused their currencies to appreciate in real terms in 2014.

In an effort to stem depreciations, a number of large central banks intervened in the foreign exchange market. República Bolivariana de Venezuela attempted to maintain the exchange rate of the bolivar to the U.S. dollar through controls, which have led to shortages of imports, growing unofficial markets for foreign exchange, and multiple exchange rates. Since August 2013 until recently, the Brazilian central bank was using local currency swaps in the foreign-exchange markets to stem depreciation. The Bank of Mexico began in March selling up to \$52 million dollars a day. The move is in addition to the automatic auction introduced last December of \$200 million a day in the event of a depreciation of the peso/dollar exchange rate by more than 1.5 percent in a day. This was accompanied by several monetary policy rate hikes in Brazil and Colombia since mid-2014 (Figure 2.27). In contrast, easing inflation and modest depreciations have provided some central banks room to lower policy rates in support of growth (Guatemala, Honduras, and Peru).

In the wake of decreased oil revenues and increased fiscal pressures, oil exporters have been compelled to implement a procyclical fiscal tightening, whereas oil-importers have seen their defi-

**FIGURE 2.24 Average annual inflation—headline and core**

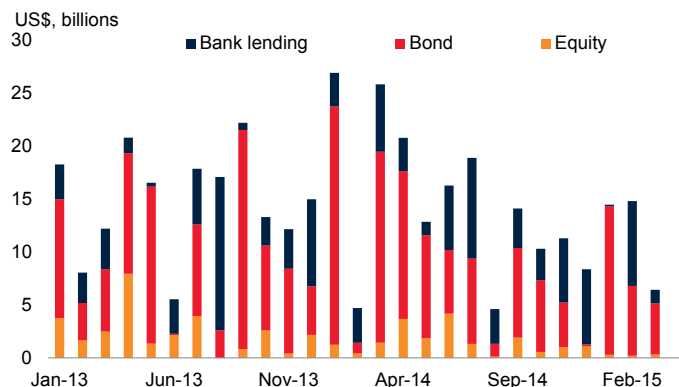
Headline inflation edged down in 2015, especially among oil importers.



Source: Haver Analytics, World Bank.  
Note: Core inflation excludes volatile food and energy prices.

**FIGURE 2.25 Monthly gross capital flows to LAC region**

Regional capital inflows weakened after July 2014.



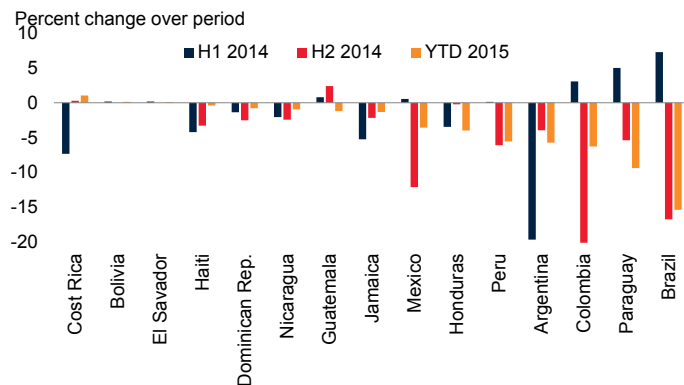
Source: Dealogic.

icits narrow. Mexico expects to increase revenues from gasoline sales taxes. With oil income accounting for around 17 percent of total fiscal revenue, Colombia has announced government spending cuts and tax increases to offset revenue shortfalls.<sup>1</sup> In their 2015 budgets, Ecuador and Mexico have effected spending cuts in response to the decline in hydrocarbons-related revenues. Ecuador will also undertake sizeable external borrowing, along with new taxes and import tariffs, in an effort to sustain planned investment.

<sup>1</sup>Colombia's proposed tax increases pertain to the extensions of the wealth tax and the debit transaction tax that expired at end-2014. In addition, a commission has been established to recommend additional tax reforms.

**FIGURE 2.26a Exchange rate against U.S. dollar**

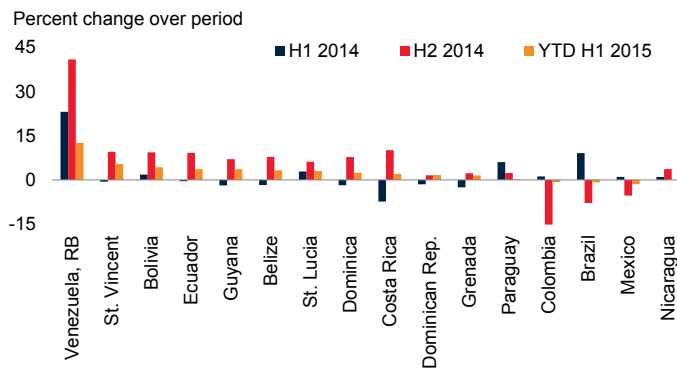
*Depreciation against the U.S. dollar intensified in the second half of 2014.*



Source: Haver Analytics  
 Note: Local currency spot exchange rates (increase denotes appreciation)

**FIGURE 2.26b Real effective exchange rates**

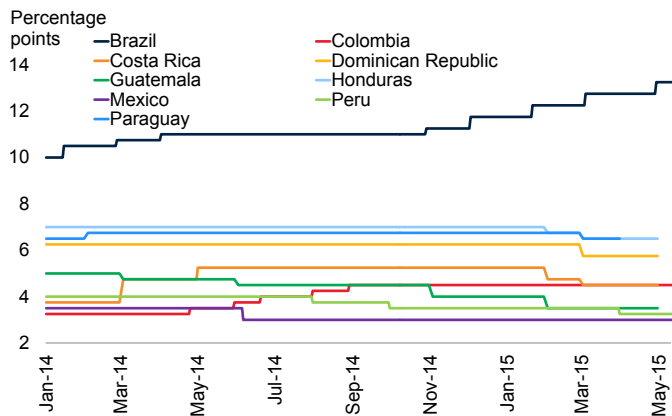
*Most regional currencies appreciated in real effective terms.*



Source: Haver Analytics and IMF  
 Note: Increase denotes appreciation.

**FIGURE 2.27 Central bank policy rates**

*With some exceptions, regional central banks eased to support growth.*



Source: Haver Analytics.

## Outlook

Despite a strengthening recovery in the advanced economies, growth in the LAC region is expected weaken further to 0.4 percent in 2015. Low commodity prices, tepid investment growth in challenging business environments, and fiscal consolidation are the main negative factors. As economic activity in the United States, the Euro Area, and Japan picks up, commodity prices gradually strengthen, and investor sentiment improves on better policies, growth is expected to rebound to 2.0 percent in 2016, and to 2.8 percent in 2017 (Figure 2.28). However, there is a divergence among the sub-regions, with prospects for Central and North America and the Caribbean being relatively brighter than in South America.

South America is projected to contract in 2015 as low commodity prices are expected to persist, fiscal consolidation remains a priority, and investor confidence continues to be dampened. In Brazil, in particular, output will contract as investment slumps in part due investigations surrounding a corruption scandal, concerns with inflation and fiscal sustainability, and slowing infrastructure investment. Inadequate infrastructure remains a key bottleneck for production. The baseline projects a gradual recovery in 2016 and 2017 on the following assumptions: the government implements fiscal reform to attain a more sustainable budget, inflation is brought down to within the targeted band, and investor confidence returns in response. With the already weak economic environment exacerbated by continued low oil prices, economic activity in República Bolivariana de Venezuela will most likely continue contracting in 2015 and 2016, before recovering in 2017. However, this hinges on the country making necessary macroeconomic adjustments such as undertaking additional currency devaluations and lifting import restrictions so that production chains can be re-established. Argentina will see modest growth this year, but economic activity is expected to pick up in 2016 and 2017 on a stronger macroeconomic environment and regained access to international capital markets. More generally across South America, broadly stabilized prices of oil and other commodities, renewed investor confidence, and slowing fiscal consolidation should raise growth to 1.5 percent in 2016, and to around 2.5 percent in 2017.

Developing Central and North America is expected to expand 2.8 percent in 2015, picking up to 3.5

percent in 2016–17 on higher export demand from the United States. In Mexico, as the reforms approved in 2013–14 are implemented and gain traction, investment should strengthen, and offset the drag from lower oil prices. Mitigating weak domestic demand growth, stronger external demand and continued tourism growth are expected to support growth in the Caribbean of about 3.7 percent in 2016–17, while being mitigated by stronger external demand and continued tourism growth, which saw record highs in 2014.

U.S. growth is critical for LAC growth (IMF 2007). Around 40 percent of the region’s merchandise exports in 2013 were shipped to the United States and, for a large majority of LAC economies, the United States is among the five largest export destinations (Figure 2.29). The United States also remains one of the main investors in Latin America (ECLAC 2012). In 2012, United States transnationals accounted for around 20 percent of FDI flows to the region (Figure 2.30). As a result of this close trade and financial integration, the business cycles of the United States and that of the LAC region, especially Central America, tend to move together (Roache 2008). The growing momentum of the U.S. economy lifts prospects for the region.

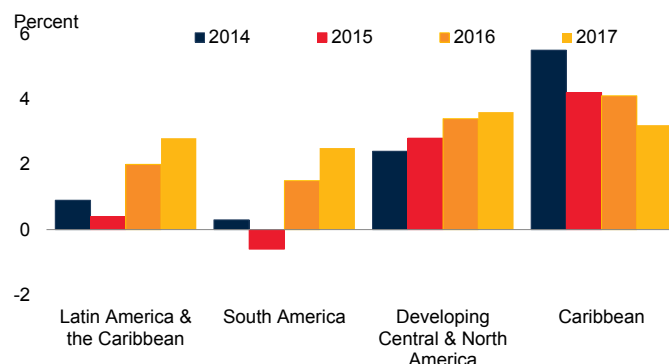
Despite some moderation, growth prospects are still robust for a number of economies in the medium-term. Peru, for example, suffered a slowdown in 2014 due to weak copper and gold prices, but is expected to see a solid rebound in 2015 and further strengthening in 2016, on stimulus measures and the gradual implementation of new infrastructure and mining projects. Bolivia faces a medium-term slowing, reflecting weaker energy and commodity prices. However, growth will be robust in coming years thanks to public investment projects and Brazilian and Argentinian demand for natural gas. Capital infrastructure projects, including investment in the private ports system, will lift Panama’s growth rates among the highest in the region.

## Risks

The balance of risks in LAC leans heavily towards the downside. The downside risks, which are both external and internal to the region, include the following.

**FIGURE 2.28 Regional medium-term growth outlook**

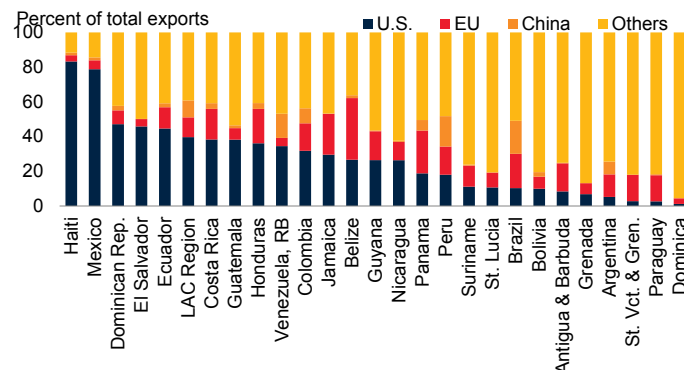
*Regional growth is projected to strengthen from 2016 onwards.*



Source: World Bank.

**FIGURE 2.29 Share of regional merchandise exports to the U.S., EU, and China, 2013**

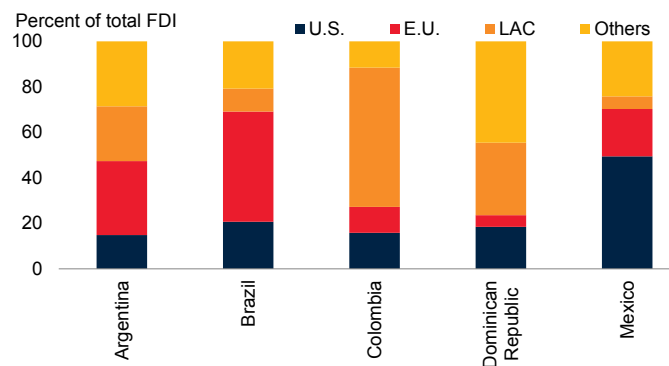
*The U.S. remains a key regional export destination.*



Source: IMF Direction of Trade.

**FIGURE 2.30 FDI into selected countries by source country, 2012**

*The U.S. accounts for a significant share of FDI into LAC.*

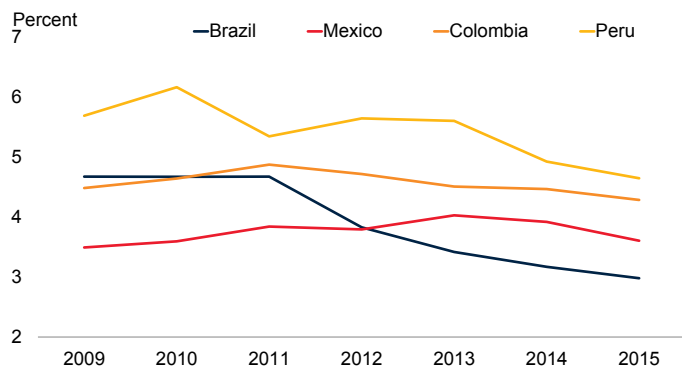


Source: UNCTAD.



**FIGURE 2.31 Consensus forecasts six years ahead, 2009–15**

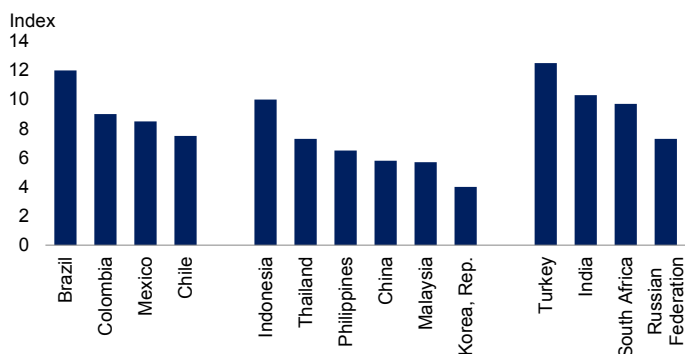
Six-year-ahead growth projections for selected LAC countries have been declining.



Source: Consensus Forecasts.

**FIGURE 2.32 Federal Reserve Board Vulnerability Index, 2014**

LAC countries show elevated levels of vulnerability.



Source: U.S. Federal Reserve Board.

### Insufficient macroeconomic adjustment among the largest economies.

The return to economic expansion is predicated on the implementation of macroeconomic policy adjustments among the region's largest economies. Insufficient progress on this front would weigh on growth in these countries as well as prospects at the regional level.

**Financial Volatility.** Monetary policy tightening in the United States, expected to begin later in 2015, has the potential to attract capital flows away from Latin America, as investors re-evaluate country-specific, long-term growth prospects and risks. Medium-term growth prospects have deteriorated in

several countries (Figure 2.31), with Mexico being an exception. If capital outflows and a reassessment were to trigger a further sharp depreciation of local currencies against the U.S. dollar, borrowers' balance sheets could be strained, since much region's debt is denominated in U.S. dollars<sup>2</sup>. LAC countries show elevated levels of vulnerability to a U.S. interest rate increase (Figure 2.32).

**Lower commodity prices.** Although a boost for oil importers, the recent slump in oil prices, if prolonged, will also pose significant challenges for oil exporters in the region. Spillovers from weaker activity in the region's oil-exporting countries would mitigate some of the benefits from lower oil prices in oil-importing countries. Similarly, larger-than-expected declines in commodity prices will further deteriorate terms of trade, dent export earnings and worsen current account balances of regional commodity exporters. FDI into commodity sectors will also be affected.

### Slower-than-expected recovery in the Euro Area.

Although there are indications of a broad-based recovery in the Euro Area, it is still fragile. Euro Area growth is projected to remain subdued in the medium term, and is subject to significant downside risks from financing stress in Greece, and from geopolitical tensions surrounding Ukraine. For several countries, the Euro Area accounts for a significant share of exports, remittances, tourism, and FDI (Figures 2.29 and 2.30).

**Hard landing in China.** China has become a key source of FDI, financing, and trade for Latin America (World Bank 2015k). China is expected to decelerate gradually to a more sustainable long-term growth path. Although a low-probability scenario, there is a risk that financial vulnerabilities could cause growth to slow more sharply than expected. A sharp slowdown in China would likely reduce FDI into the region, as well as global demand and prices for several commodities that are key export products for Latin American countries. This would further deteriorate terms-of-trade and erode export earnings of regional commodity exporters.

## Policy Challenges

Policy makers face several challenges: a nearing interest rate increase in the United States, uncertainty surrounding the fragile recoveries in the Eurozone

<sup>2</sup>IDB 2015 shows that the U.S. dollar remains the preferred currency of financing for regional economies and this preference has not been sensitive to dollar-euro spreads.

and Japan, less rapid growth in China, and adjustment to lower commodity prices and more broadly the end to the commodity super-cycle.

While there are cyclical elements to the ongoing slowdown in the region, the key concern for the region is how it adapts to the end of the double tailwind era when China's economy was surging and commodity prices were booming (World Bank, 2015). Currently, with the slowdown in China and lower commodity prices, both expected to be sustained at least in the medium-term, the region needs to find new sources of growth and address longer-term structural impediments that are holding back potential growth.

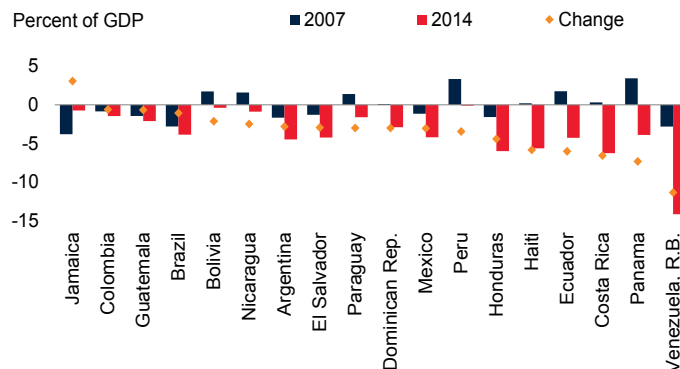
Most countries have limited room to support growth with countercyclical fiscal and monetary policies. Fiscal deficits and fiscal space have deteriorated and remain considerably weaker than before the Great Recession (Figure 2.33, World Bank, 2015k). The deterioration has been most pronounced in countries where commodity-based revenues account for large shares of total revenues (Figure 2.34). This limits room for fiscal stimulus to support activity. Similarly, the effectiveness of expansionary monetary policies has weakened in recent years (IDB 2013; Aastveit et al. 2013). Further, given that the less conducive global conditions are expected to hold in the medium-term, fiscal and monetary tools are only appropriate to smooth the transition to the new lower equilibrium, rather than to change it. In this regard, exchange rate flexibility has helped and could further help some countries, such as commodity exporters, adjust to the new equilibrium. Structural reform measures are therefore needed to enhance long-term economic prospects.

Sound reforms could promote development, more efficient labor markets, and social equity. Priority areas are education, product market competition, tax systems, and regulatory frameworks. Financial sector reform could help improve financial stability, while at the same time increasing the flow of savings into productive investment (IDB 2013).

Labor market reform could reduce economic distortions, such as inefficient allocation of labor, and raise productivity. It could also encourage a shift from informal employment and activity into formally organized structures. Informality is associated with a high proportion of small, less-efficient firms,

**FIGURE 2.33 Overall fiscal balance as a share of GDP**

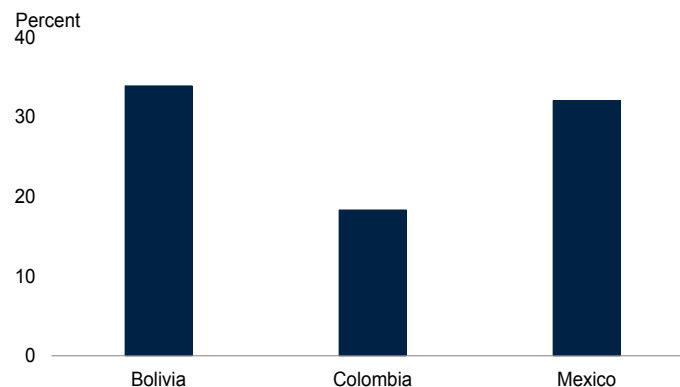
*Fiscal balances have deteriorated.*



Source: IMF World Economic Outlook April 2015, Paraguay Ministry of Finance  
 Note: General government net lending/borrowing.

**FIGURE 2.34 Share oil/gas revenue in total government budget, 2013**

*Oil and gas revenues account of significant shares of government revenues*



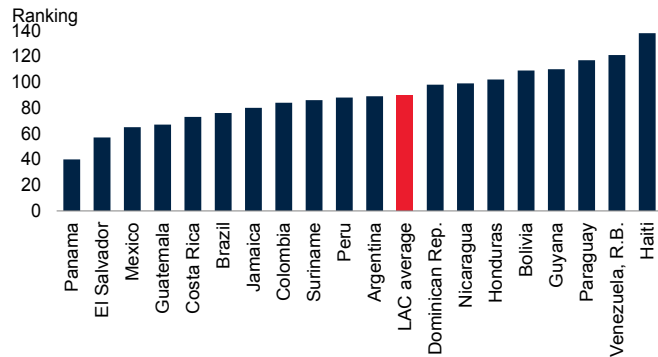
Source: Latest IMF staff reports.

high worker turnover, a less-educated and less-trained workforce, the likelihood of illegal practices, and reduced access to credit (Busso, Madrigal, and Pagés 2012). Thus, measures to reduce informality, through improved incentives to move into formal activity, could lift growth.

The region also suffers from a significant gap in the quantity and quality of infrastructure services, with low investment in this sector, resulting in low international rankings among regional economies (Figure 2.35). While public-private partnerships do not necessarily increase aggregate investment, they may offer a way to enhance existing regulatory or institutional arrangements (IDB 2013). International ex-

**FIGURE 2.35 Global rankings on quality and extensiveness of infrastructure, 2014–15**

*Regional economies suffer from a gap in the quantity and quality of infrastructure.*



Source: World Economic Forum (2014).  
Note: Rankings out of 144 economies.

perience suggests that increases in domestic savings together with improvements in regulatory institutions could yield benefits in terms of infrastructure provision and growth (Engel, Fischer, and Galetovic 2013). To enhance investment rates, countries could deepen long-term domestic savings by streamlining regulations of financial institutions that serve residents. Similarly, pension, social security, and tax reform could have major impacts on savings levels (IDB 2013).

**TABLE 2.5 Latin America and the Caribbean forecast summary***(Annual percent change unless indicated otherwise)*

	00-10 <sup>a</sup>	2011	2012	2013	2014 <sup>e</sup>	2015 <sup>f</sup>	2016 <sup>f</sup>	2017 <sup>f</sup>
<b>GDP at market prices<sup>b</sup></b>	3.3	4.7	2.9	2.7	0.9	0.4	2.0	2.8
(Average including countries with full national accounts and balance of payments data only) <sup>c</sup>								
GDP at market prices <sup>c</sup>	3.3	4.7	2.9	2.7	0.9	0.4	2.0	2.8
GDP per capita	1.9	3.0	1.4	1.5	-0.2	-0.7	1.0	1.8
PPP GDP	3.2	4.4	2.7	2.8	1.2	0.8	2.3	2.9
Private consumption	3.6	5.1	4.1	3.2	1.1	0.2	1.8	2.3
Public consumption	3.3	3.0	4.1	2.8	2.1	0.0	-0.1	1.5
Fixed investment	4.8	7.9	1.7	2.4	-1.6	-2.7	2.3	3.7
Exports, GNFS <sup>d</sup>	2.8	6.9	3.1	1.0	1.7	4.0	4.9	5.3
Imports, GNFS <sup>d</sup>	5.7	11.2	4.6	3.3	1.1	1.0	3.2	3.9
<b>Net exports, contribution to growth</b>	-0.4	-0.9	-0.3	-0.5	0.1	0.6	0.3	0.3
<b>Consumer prices (annual average)</b>	7.0	7.5	6.7	9.8	14.7	...	...	...
<b>Fiscal balance (percent of GDP)</b>	-2.6	-3.1	-3.6	-3.7	-5.7	-5.7	-5.5	-5.1
<b>Memo items: GDP</b>								
Broader geographic region (incl. recently high income countries) <sup>e</sup>	3.3	4.8	3.0	2.8	1.0	0.5	2.1	2.8
South America <sup>f</sup>	3.7	4.9	2.5	3.0	0.3	-0.6	1.5	2.5
Developing Central and North America <sup>g</sup>	2.0	4.2	4.1	1.8	2.4	2.8	3.4	3.6
Caribbean <sup>h</sup>	3.4	2.8	2.0	3.8	5.5	4.2	4.1	3.2
Brazil	3.6	3.9	1.8	2.7	0.1	-1.3	1.1	2.0
Mexico	1.8	4.0	4.0	1.4	2.1	2.6	3.2	3.5
Argentina <sup>i</sup>	3.8	8.4	0.8	2.9	0.5	1.1	1.8	3.0

Source: World Bank.

World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not differ at any given moment in time.

a. Growth rates over intervals are compound weighted averages; average growth contributions, ratios and deflators are calculated as simple averages of the annual weighted averages for the region.

b. GDP at market prices and expenditure components are measured in constant 2010 U.S. dollars.

c. Sub-region aggregate excludes Cuba, Grenada, and Suriname, for which data limitations prevent the forecasting of GDP components or Balance of Payments details.

d. Exports and imports of goods and non-factor services (GNFS).

e. Recently high-income countries include Chile, Trinidad and Tobago, and Uruguay.

f. South America: Argentina, Bolivia, Brazil, Colombia, Ecuador, Guyana, Paraguay, Peru, Venezuela

g. Developing Central & North America: Costa Rica, Guatemala, Honduras, Mexico, Nicaragua, Panama, El Salvador.

h. Caribbean: Belize, Dominica, Dominican Republic, Haiti, Jamaica, St. Lucia, St. Vincent and the Grenadines.

i. Preliminary for long-term average. Data was recently rebased; missing data up to 2003 was spliced with the earlier data.

**TABLE 2.6 Latin America and the Caribbean country forecasts***(Real GDP growth at market prices in percent, unless indicated otherwise)*

	00-10 <sup>a</sup>	2011	2012	2013	2014e	2015f	2016f	2017f
Argentina <sup>b</sup>	3.8	8.4	0.8	2.9	0.5	1.1	1.8	3.0
Belize	4.0	2.1	3.8	1.5	3.6	2.5	2.6	2.7
Bolivia	3.8	5.2	5.2	6.8	5.3	4.8	4.2	4.1
Brazil	3.6	3.9	1.8	2.7	0.1	-1.3	1.1	2.0
Colombia	4.1	6.6	4.0	4.9	4.6	3.5	3.9	4.2
Costa Rica	4.4	4.5	5.2	3.4	3.5	3.4	4.2	4.4
Dominica	2.6	0.2	-1.4	-0.9	1.5	1.3	1.5	1.6
Dominican Republic	4.9	2.9	2.6	4.8	7.3	5.2	4.8	3.4
Ecuador	4.1	7.8	5.2	4.6	3.8	1.9	3.0	4.2
El Salvador	1.9	2.2	1.9	1.7	2.0	2.2	2.5	2.6
Guatemala	3.3	4.2	3.0	3.7	4.2	4.0	3.9	3.9
Guyana	2.4	5.4	4.8	5.2	3.6	3.7	3.8	4.0
Haiti	0.1	5.5	2.9	4.2	2.7	1.7	3.2	3.1
Honduras	4.1	3.8	4.1	2.8	3.1	2.9	3.3	3.5
Jamaica	0.5	1.7	-0.6	0.6	0.4	1.5	2.2	2.5
Mexico	1.8	4.0	4.0	1.4	2.1	2.6	3.2	3.5
Nicaragua <sup>b</sup>	2.8	5.7	5.0	4.6	4.7	4.2	4.3	4.2
Panama	6.3	10.9	10.8	8.4	6.2	6.2	6.4	6.5
Paraguay	3.4	4.3	-1.2	14.2	4.4	4.2	4.1	4.1
Peru <sup>b, c</sup>	5.6	6.5	6.0	5.8	2.4	3.9	5.0	5.0
St. Lucia	1.8	1.2	-1.6	-0.4	-1.0	-0.6	0.8	1.4
St. Vincent and the Grenadines	3.5	-0.5	1.2	1.7	1.5	2.6	2.9	3.4
Venezuela, RB	3.1	4.2	5.6	1.3	-4.0	-5.1	-1.0	1.1

Source: World Bank.

World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not significantly differ at any given moment in time.

Cuba, Grenada, St. Kitts and Nevis, are not forecast owing to data limitations.

a. GDP growth rates over intervals are compound average.

b. Preliminary for long-term average. Data was recently rebased; missing earlier data was spliced with the previous series.

c. Incorporates country data through May 20, 2015.

	00-10 <sup>a</sup>	2011	2012	2013	2014e	2015f	2016f	2017f
<b>Recently transitioned to high-income countries<sup>b</sup></b>								
Chile	4.1	5.8	5.5	4.2	1.9	2.9	3.3	3.5
Trinidad and Tobago	5.7	-2.6	1.2	1.6	0.8	1.8	2.0	2.2
Uruguay	2.9	7.3	3.7	4.4	3.5	2.6	3.1	3.2

Source: World Bank.

World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not significantly differ at any given moment in time.

Cuba, Grenada, St. Kitts and Nevis, are not forecast owing to data limitations.

a. GDP growth rates over intervals are compound average.

b. The recently high-income countries are based on World Bank's country reclassification from 2004 to 2015.



# MIDDLE EAST and NORTH AFRICA



*After an easing in tensions in early 2014, the Middle East and North Africa region is again experiencing major—and increasing—security challenges. In addition, since mid-2014, it is also adjusting to the oil price drop. This is a particular challenge for oil-exporting countries, many of which also face severe security issues. For oil-importing countries, the potential positive effect of lower oil prices is partially offset by spillovers from within the region, including through lower remittances and security problems, and by long-standing constraints on growth potential. Growth is expected to average about 2.2 percent in the developing countries of the region in 2015, and to pick up modestly in 2016-17. Risks remain tilted to the downside, more so than in other regions. Policy makers face the challenges of adjusting to lower oil prices and coping with security risks in the short-run, and bolstering growth, employment, and fiscal positions in the long-run.*

## Recent Developments

Regional growth rebounded to 2.2 percent in 2014 (from 0.5 percent in 2013) due to some easing in security risks (the Arab Republic of Egypt and Lebanon); strong, credit-fueled domestic demand growth (Algeria); public investment and sanctions relief under two interim nuclear agreements (the Islamic Republic of Iran); and a rebound in oil production in some oil-exporting countries (Libya, Iraq, and the Islamic Republic of Iran).<sup>1</sup>

In the first half of 2015, security challenges intensified in oil-producing developing countries. Rebel forces toppled the government in the Republic of Yemen, prompting aerial intervention by Saudi Arabia. Various rebel groups, most notoriously the militant group the Islamic State of Iraq and the Levant (ISIL), advanced into new territory in the Syrian Arab Republic. Conflicting factions in Libya have targeted oil installations to seize or destroy revenue streams. Associates of ISIL joined fighting in Yemen and Libya. ISIL fighters are reportedly massing at the Syrian border with Lebanon and clashing with

Lebanese security personnel. In Tunisia, terrorist attacks have targeted tourists.

Growth in the region's oil-exporting developing countries<sup>2</sup> averaged 1.9 percent in 2014, a recovery from the 0.8 percent contraction in 2013. Oil production stabilized at around 8.2 million barrels per day (mbd) towards the end of 2014—25 percent below the pre-Arab Spring average (Figure 2.37)—but has since fallen again. Libya was hit hard in the latest quarter as its oil infrastructure came under attack; production fell from 0.7 mbd in 2014Q4 to 0.3 mbd in 2015Q1. The Islamic Republic of Iran remains under sanctions, with a cap on oil exports of 1.1 mbd. This limit may be eased if the international negotiations on Iran's nuclear program are successful. The Islamic Republic of Iran would then contribute an additional 0.7–1.0 mbd to an already oversupplied market, keeping prices low, potentially, for a considerable period.

Iraq, Libya, and the Republic of Yemen rely heavily on the oil sector for government revenues (Figure 2.36). As a result of security challenges and falling oil prices, they suffered large revenue declines and widening fiscal deficits. This led to sharp cuts spending and difficulties maintaining

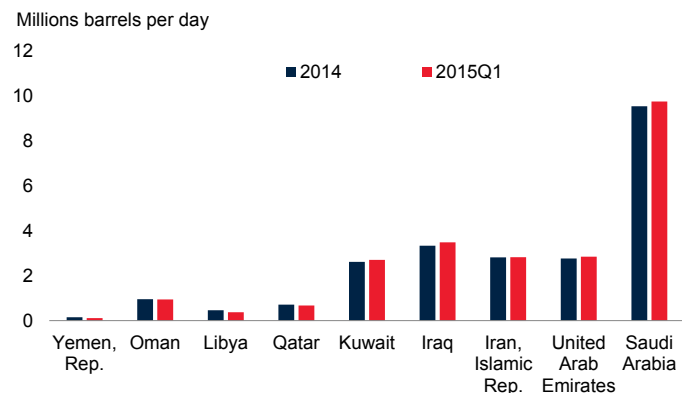
<sup>1</sup>The main author of this section is Franziska Ohnsorge with contributions from Damir Cosic.

<sup>1</sup>This chapter covers low- and middle-income countries of the Middle East and North Africa region while high-income Gulf Cooperation Council (GCC) countries are excluded. The developing countries are further divided into two groups: oil-importers and oil-exporters.

<sup>2</sup>Developing oil-exporting countries are: Algeria, the Islamic Republic of Iran, Iraq, Libya, and the Republic of Yemen. Syrian Arab Republic is excluded due to data limitations.

**FIGURE 2.36 Oil production**

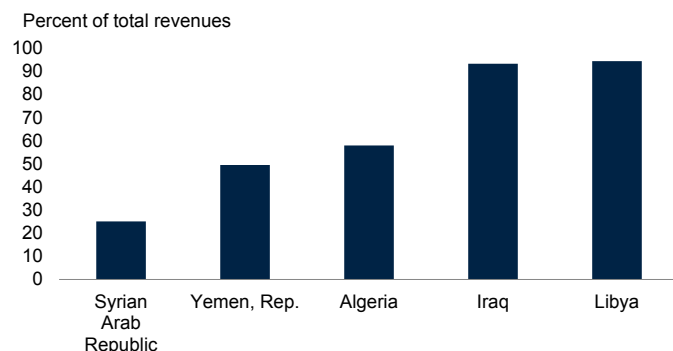
*Oil production is rising modestly in high income oil exporting countries.*



Source: International Energy Agency.

**FIGURE 2.37 Oil revenues, 2014**

*Fiscal revenues are highly dependent on oil.*



Source: IMF (2014a and b); IMF (2013a and b); IMF (2010).  
Note: For Syria, data is for 2010.

basic state functions. In the Republic of Yemen, growth continued to be positive in 2014, but in Iraq, the economic disruptions of the ISIL insurgency, and flat government expenditures, contributed to a contraction in 2014. Algeria saw strong domestic demand and activity in non-oil sectors, partly as a result of double-digit credit growth.

Growth in oil-importing developing countries was broadly flat at 2.8 percent in 2014.<sup>3</sup> Growth in Egypt (on calendar year basis), Lebanon and Jordan picked up in 2014. In Egypt, the economy benefited from a rebound in tourism, public spending, and a return of confidence, as a result of political stabiliza-

<sup>3</sup>Developing oil-importing countries are: Djibouti, the Arab Republic of Egypt, Jordan, Lebanon, Morocco, Tunisia, and West Bank and Gaza.

tion. In Lebanon, a mid-year lull in violence, rapid credit growth, and an inflow of refugees supported domestic demand (World Bank 2014c; Ianchovichina and Ivanic 2014). In Jordan, growth picked up slightly to 3.1 percent. Disruptions to transport routes limited the expansion, as did capacity constraints as Jordan absorbed a large inflow of refugees from Syria that began in 2013. In contrast, growth slowed sharply in Morocco to 2.6 percent due to a contraction in agricultural output after a bumper crop in the previous year and weak exports to the Euro Area.

Growth momentum appeared to be faltering in several oil-importing economies in early 2015. In Egypt, fragile export growth and higher costs of inputs (after a step depreciation in January) have held back industrial production and dented confidence. In Tunisia, tourist arrivals weakened even before the terrorist attacks in March. In contrast, on somewhat improved security, industrial production and tourism in Lebanon (especially from Arab countries) appears to have expanded in January and February.

The impact of trade-weighted U.S. dollar appreciation since mid-2014 on exchange rates and inflation differed depending on country circumstances, including the exchange rate regime. Both oil-importing as well as oil-exporting countries continued to face depreciation pressures. To maintain competitiveness, central banks in Algeria, Egypt, Morocco, and Tunisia allowed their currencies to depreciate by 4-8 percent against the U.S. dollar in the first three months of 2015. In trade-weighted terms, their exchange rates depreciated modestly. In contrast, pegs against the U.S. dollar in Iraq, Jordan, and Lebanon caused a significant trade-weighted appreciation (Figure 2.38).

Currency depreciations and the prevalence of administered fuel prices have limited the impact of lower global food and energy prices on domestic consumer prices (Figure 2.39). As a result, inflation has remained elevated in Algeria, Egypt, and Tunisia, and increased in Morocco. In contrast, in Lebanon, Jordan, and Iraq, which maintain exchange rate pegs against the appreciating U.S. dollar, inflation slid to near-zero (Jordan) or has turned negative (Lebanon, Iraq).

Fiscal deficits widened markedly in 2014 in oil-exporting developing countries, but narrowed marginally in oil-importing ones. For oil exporters,

sharp oil revenue losses and rapid spending growth on public sector wages and subsidies have widened deficits to 5.2 percent of GDP from 2.7 percent of GDP in 2013. In oil-importing countries, fiscal balances have improved somewhat, as spending pressures from subsidies eased with falling oil prices, and as fuel and food subsidies were cut. Despite this improvement, fiscal deficits in oil-importing countries remain high at around 10 percent of GDP in 2014, and government debt around 90 percent of GDP. Egypt has financed its deficit with loans from the Gulf Cooperation Council (GCC), while Jordan and Tunisia have relied on official assistance.

Lower commodity prices have helped narrow current account deficits of oil importers by 1–2 percentage points of GDP, while current account balances declined in oil exporters. Despite intensified fighting in Libya, and tightened migrant regulation in Saudi Arabia, remittance receipts grew 8 percent in 2014. This partly reflects a rebound of remittances from GCC countries to Egypt, as political uncertainty in Egypt has settled.

Countries that regularly tap international financial markets (Egypt, Lebanon, Jordan, Morocco, and Tunisia) continued to receive capital inflows, with at times strong domestic and foreign investor demand (Lebanon and Tunisia). Bank lending was particularly robust in the energy sectors of Egypt and Jordan, amid improving growth prospects and expectations of medium-term oil price increases. International banks were also active in Lebanon's sovereign bond issuance.

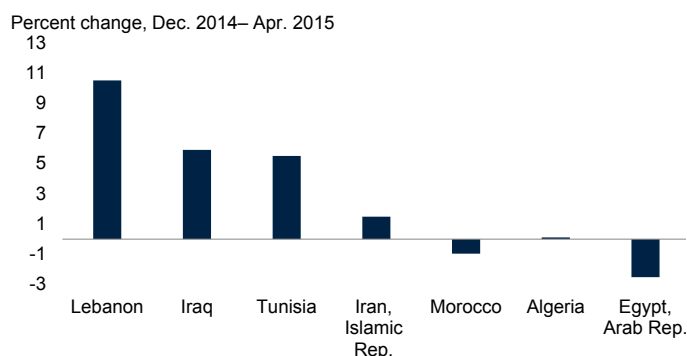
## Outlook

Much will depend on developments in the security situation, and—partly linked—to global oil prices. The baseline scenario assumes that the security situation in the region will remain fragile during 2015, and improve only gradually afterwards. Security concerns will dampen the outlook not only in the affected countries, but also neighboring countries where security risks will discourage tourism and reduce remittances because of the return of migrants.

Growth has been revised downward and is expected to remain flat at 2.2 percent in 2015. Lower oil prices have been a setback to oil-exporting countries that are already struggling with security risks, but they have so far failed to significantly lift prospects

## FIGURE 2.38 Nominal effective exchange rates

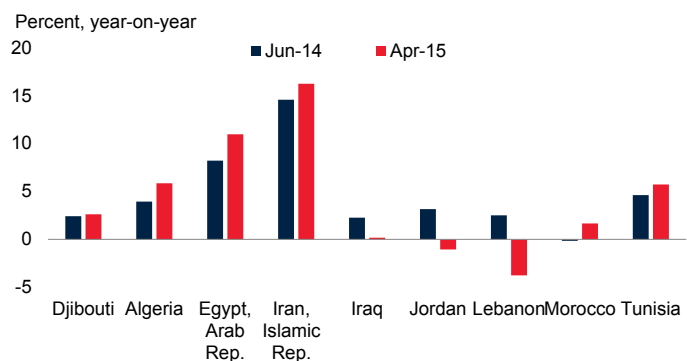
Exchange rates have appreciations in countries with exchange rates pegged to the U.S. dollar.



Source: World Bank Global Economic Monitor, JPMorgan.  
Note: A negative number denotes a nominal effective depreciation.

## FIGURE 2.39 Inflation

Depreciation has helped reduced inflation in countries with fixed exchange rates.



Source: World Bank.

in oil-importing countries, which are facing various headwinds of their own. For 2016–17, growth is expected to rebound to 3.7 percent on improving external demand, strengthening confidence in some oil-importing countries, and the assumed gradual stabilization of security.

Political, social, and security stabilization in Egypt is expected to lift investor sentiment in the energy, transport (including investment related to the Suez Canal expansion), and tradable goods sectors. As a result, growth is expected to rise to 4.5 percent in 2015–17, on average. Elsewhere, economic gains will be supported by public infrastructure investment (Jordan), additional consumption demand from a large refugee population (Lebanon), and a return to normal agricultural output and successful diversification reform efforts (Morocco). Additional

positive factors include higher real household incomes from low oil prices and rising external demand as the Euro Area recovery gains traction. Resilient, albeit slowing, remittance growth is also expected to support activity. Improving investor confidence should attract capital inflows, especially into Egypt and Lebanon. Official financing is expected to remain robust, both to finance budgets in Egypt and Lebanon and to support refugee needs across the region. In Tunisia, however, the attacks in March are expected to set back tourism; growth is expected to remain weak at 2.6 percent in 2015.

Due to continued security challenges and low oil prices, growth is expected to nudge downwards in oil-exporting countries to 1.1 percent on average in 2015. However, as oil prices stabilize and recover and security concerns gradually ease, growth is expected to rebound to 3.3 in 2017. In Iraq, an agreement between the central government and that of the Kurdish region is expected to allow for an expansion in oil production. For the Islamic Republic of Iran the baseline scenario assumes sanctions relief in line with the interim steps taken so far. In Libya, the baseline scenario assumes that oil output will expand very gradually amid a challenging security situation. If, however, a comprehensive political agreement is reached, oil exports could quickly resume and GDP rebound by more than 50 percent in 2016.

The decline in oil prices will have major, and enduring, effects on fiscal and external positions in oil-exporting and oil-importing countries alike. Exporters will continue to rein in spending in a (procyclical) effort to offset sharp falls in oil revenues. Nevertheless, their fiscal deficits are expected to widen to 8.2 percent of GDP in 2015. In contrast, deficits in oil importers should narrow to about 8.7 percent of GDP in 2015, as a result of lower costs of fuel subsidies. By 2017, improving growth and adjustment measures should help narrow deficits for both oil-importing and -exporting countries by an average of about 6 percent of GDP.

Current account balances are expected to improve in oil-importing countries and deteriorate in oil-exporting countries. In some oil-exporting countries, however, where new oil production is expected to be available for export, current account balances are expected to improve (Algeria,

Iraq). Still-robust growth in GCC countries, driven by government spending that benefits sectors that heavily employ migrants, as well as strengthening Euro Area growth, will raise remittance inflows especially in Egypt, Jordan, Tunisia, and Yemen.

## Risks

Risks remain tilted to the downside—more so than in other regions—as a result of security challenges. The key risks remain an escalation of violence and oil price volatility.

Security risks loom large across the whole region. Violence could escalate in countries that are currently experiencing conflict, and could spread to neighboring countries, as demonstrated in the terrorist attacks in Tunisia. Even if violence does not permanently disrupt economic activity, it could disrupt or sever transport links that are critical for the small, open economies in the region (Ianchovichina and Ivanic 2014). Activity in the tourism sector would contract and domestic and external investor confidence would weaken. This would especially dampen FDI in non-natural resource sectors. Although FDI in the natural resource sector tends to be less sensitive to security risks, it may also decline if oil prices fall further, or do not gradually recover as currently expected (Burger, Ianchovichina, and Rijkers 2015; Witte et al. 2015).

If violence damages oil installations and disrupts oil production on a large scale, oil prices could spike sharply for an extended period. The economic disruption would outweigh any benefit from higher oil prices for the region as a whole, although some oil-exporting countries unaffected by the disruption may benefit. Oil-importing countries, however, would see spikes in inflation, fiscal and external pressures. These could be accompanied by sharp slowdowns or reversals in capital inflows. Since virtually all countries in the region (except the Islamic Republic of Iran) have current account deficits in excess of 5 percent of GDP, a disruption or reversal of capital inflows could cause large exchange rate pressures. Conversely, a further fall in oil prices would intensify the external and fiscal pressures currently faced by oil exporters, while growth in oil importers could continue to be held back by structural impediments to growth. Long-standing problems,

including high unemployment, especially among youth and women, and the poor quality of basic services, such as education and health, remain unsolved (World Bank 2015k).

One significant upside risk is a possible permanent agreement between the Islamic Republic of Iran and the international community. If signed and implemented, economic recovery in that country would be substantial, with growth rates in excess of 6 percent per year in the latter part of the forecast period. This would raise the regional growth rate by 2–2.5 percentage points per year as well.

The GCC countries and the Euro Area are the region’s largest trading partners and the outlook is subject to downside risks to growth in both (Figure 2.40). In GCC countries, low oil prices may induce a slowdown in government spending in areas where many migrant workers (e.g. construction) or a broad-based reduction in import demand amid slowing growth. Although the recovery appears to be strengthening in Europe, it is fragile and could be derailed. As the euro depreciates with quantitative easing of the ECB, countries with U.S. dollar pegs are especially vulnerable to losing competitiveness and growth momentum (Iraq, Jordan, and Lebanon).

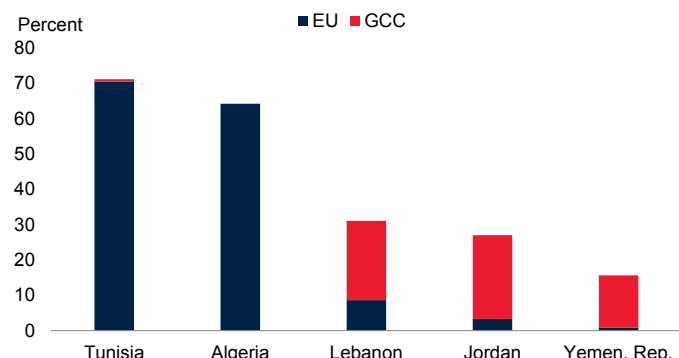
## Policy Challenges

Policy makers face a dual challenge: adjusting to lower oil prices and dealing with security risks in the short run, and bolstering growth and employment in the long run. Fixed or heavily managed exchange-rate regimes, and the large role played by governments in these economies, make economic adjustment more difficult.

In countries with some exchange-rate flexibility, central banks are often caught between the desire to stem depreciation to preserve financial stability (or contain inflation), versus the need to support weak activity (Algeria, Morocco, and Tunisia) or a nascent recovery after several years of low growth (Egypt). This trade-off is of particular concern in countries where inflation is expected to remain high, as recent currency depreciation passes through to prices (Algeria, Egypt, and Tunisia).

**FIGURE 2.40 Share of exports to GCC and Euro Area countries, 2013**

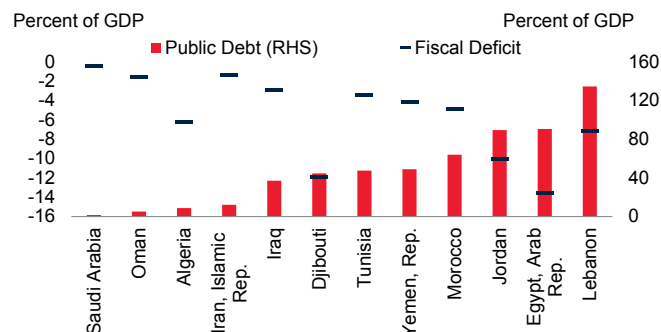
*The slowdown in oil-exporters in the region dampens activity in trading partners.*



Source: UN Comtrade.  
Note: The GCC includes Bahrain, Kuwait, Qatar, Oman, Saudi Arabia, and United Arab Emirates.

**FIGURE 2.41 Public debt and deficits, 2014**

*Debt and deficits remain elevated in oil-importing countries.*



Source: World Bank, IMF

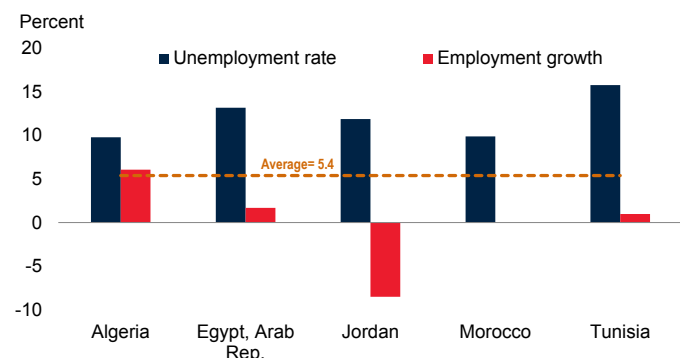
Fragile security in Iraq, Libya, Syria, and the Republic of Yemen is causing sizeable refugee flows. For example, Lebanon’s population has increased by 19 percent and Jordan’s by 8 percent since 2013 (Abdih and Geginat 2014). The need to provide basic services to the refugees is placing pressures on government budgets in Iraq, Jordan, Lebanon, and Tunisia—all countries with substantial fiscal financing needs, government debt, and fiscal deficits (Figure 2.41). Fulfilling government functions while maintaining sustainable fiscal balances will require new revenues and/or streamlining inefficient expenditures, including fuel and food subsidies.

Fiscal deficits, although declining in the forecast period, are expected to remain high in oil importing countries of the region in the medium-term. In particular, there is a need to ensure that the fiscal windfall from lower oil prices is channeled to efficient,



**FIGURE 2.42 Unemployment rate and employment growth, 2013**

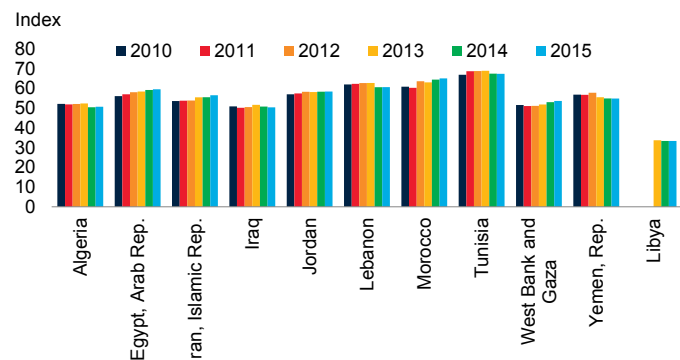
*Unemployment remains high and above the developing country average.*



Source: Haver Analytics.  
Note: The orange line is the weighted average unemployment rate of all developing countries in 2013.

**FIGURE 2.43 Business climate: distance to frontier**

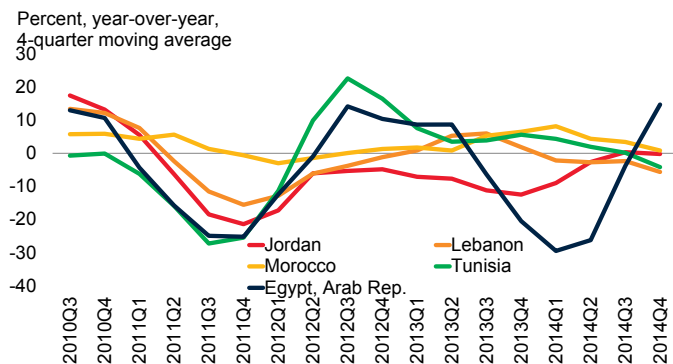
*The business environment remains challenging in most MENA countries.*



Source: Doing Business 2015, World Bank.

**FIGURE 2.44 Growth in tourism arrivals**

*Tourism a key service export, remains weak.*



Source: UN World Tourism Report.

growth-enhancing public investment, or towards debt reduction, as warranted. In the past, this wind-fall was spent on higher current spending, namely salaries and subsidies. In addition, these fiscal wind-falls could also be used to tackle difficult reforms where some upfront expenditures may be required, for example on cash transfers to mitigate reform costs or recapitalization of financial sectors.

Unemployment remains high across the region despite some easing in Algeria, Egypt, and Jordan (Figure 2.42). As a result of an uncertain political and security situation in several countries, there has been little progress in structural reforms. Yet these remain critical to generating job-rich growth in a difficult environment. Labor market reforms need to tilt incentives away from public employment; reforms to level the playing field and increase competition between firms are needed; and a significant strengthening in institutional quality is required (World Bank 2015k, Figure 2.43).

Another long-term challenge is that the development model that dominated in the region—where the state provided free health and education, subsidies for food and fuel, and jobs in the public sector—has reached its limits. While this model delivered high school enrollment rates, basic health care and public sector jobs, it failed to provide quality education, health care, or jobs in the private sector (Devarajan and Mottaghi 2015). To generate private-sector jobs and quality public services, a new development model is needed in which the state facilitates competition in domestic markets in order to generate private sector jobs, and organizes public services in ways that enable citizens to hold officials accountable.



**TABLE 2.7 Middle East and North Africa forecast summary**

(Annual percent change unless indicated otherwise)

	00-10 <sup>a</sup>	2011	2012	2013	2014e	2015f	2016f	2017f
<b>GDP at market prices, developing economies<sup>b,c</sup></b>	4.5	-0.1	1.3	0.5	2.2	2.2	3.7	3.8
<b>GDP at market prices, geographic region<sup>b</sup></b>	4.6	3.5	3.7	2.6	3.0	3.0	3.6	3.8
(Average including economies with full national accounts and balance of payments data only) <sup>d</sup>								
<b>GDP at market prices, developing countries<sup>c,d</sup></b>	4.8	2.6	-1.1	0.9	3.3	2.4	3.3	3.5
GDP per capita (units in US\$)	3.1	1.1	-2.6	-0.5	1.8	1.0	2.0	2.2
PPP GDP <sup>e</sup>	4.8	2.5	-1.0	1.0	3.3	2.5	3.4	3.6
Private consumption	4.7	4.7	3.3	3.0	3.4	3.5	3.5	3.5
Public consumption	3.2	2.5	2.4	1.5	5.1	3.7	2.9	2.9
Fixed investment	7.0	0.1	-8.0	-1.1	1.1	2.4	6.8	4.2
Exports, GNFS <sup>f</sup>	5.3	1.4	-5.0	-0.2	1.8	4.6	4.8	5.1
Imports, GNFS <sup>f</sup>	8.2	0.4	1.3	-1.9	3.7	5.3	6.2	6.7
<b>Net exports, contribution to growth</b>	-0.6	0.3	-2.0	0.6	-0.7	-0.4	-0.7	-0.8
<b>Consumer prices (annual average)</b>	7.1	12.0	13.8	19.2	10.9	...	...	...
<b>Fiscal balance (percent of GDP)<sup>g</sup></b>	0.1	-4.0	-3.8	-5.9	-7.2	-8.3	-6.4	-5.6
<b>Memo items: GDP</b>								
Developing Economies, ex. Libya	4.5	3.0	-0.6	1.1	3.1	2.3	3.5	3.6
High Income Oil Exporters <sup>h</sup>	4.6	7.7	6.1	4.6	3.8	3.8	3.5	3.8
Developing Oil Exporters	4.2	-1.8	0.5	-0.8	1.9	1.1	3.3	3.3
Developing Oil Importers	5.0	2.6	2.5	2.6	2.8	3.9	4.3	4.6
Egypt	4.8	2.0	2.1	2.1	3.2	4.3	4.7	4.8
<i>Fiscal Year Basis</i>	4.9	1.8	2.2	2.1	2.2	4.2	4.5	4.8
Iran	5.0	3.9	-6.6	-1.9	3.7	1.0	2.0	2.0
Algeria	3.9	2.8	3.3	2.8	4.1	2.6	3.9	4.0

Source: World Bank.

World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not differ at any given moment in time.

a. Growth rates over intervals are compound weighted averages; average growth contributions, ratios and deflators are calculated as simple averages of the annual weighted averages for the region.

b. GDP at market prices and expenditure components are measured in constant 2010 U.S. dollars.

c. Geographic region includes developing and the following high-income countries: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and United Arab Emirates.

d. Sub-region aggregate excludes Djibouti, Iraq, Libya, Syria and West Bank and Gaza, for which data limitations prevent the forecasting of GDP components or Balance of Payments details.

e. GDP measured at PPP exchange rates.

f. Exports and imports of goods and non-factor services (GNFS).

h. Includes all developing economies, except Syria for which data is not available.

i. High Income Oil Exporting Countries: Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates.

**TABLE 2.8 Middle East and North Africa economy forecasts***(Real GDP growth at market prices in percent, unless indicated otherwise)*

	00-10 <sup>a</sup>	2011	2012	2013	2014e	2015f	2016f	2017f
Algeria	3.9	2.8	3.3	2.8	4.1	2.6	3.9	4.0
Djibouti	3.9	4.5	4.8	5.0	6.0	6.5	7.0	7.1
Egypt, Arab Rep.	4.8	2.0	2.1	2.1	3.2	4.3	4.7	4.8
<i>Fiscal Year Basis</i>	4.9	1.8	2.2	2.1	2.2	4.2	4.5	4.8
Iran, Islamic Rep.	5.0	3.9	-6.6	-1.9	3.7	1.0	2.0	2.0
Iraq	-0.4	10.2	10.3	4.2	-0.5	-1.0	5.5	5.9
Jordan	6.3	2.6	2.7	2.8	3.1	3.5	3.9	4.0
Lebanon	5.9	2.0	2.2	0.9	2.0	2.5	2.5	2.5
Libya	4.3	-62.1	104.5	-13.7	-24.0	0.5	15.0	10.9
Morocco	4.9	5.0	2.7	4.4	2.6	4.6	4.8	5.0
Tunisia	4.7	-0.5	3.7	2.3	2.3	2.6	3.4	4.5
Yemen, Rep.	4.3	-12.7	2.4	4.8	0.3	-2.8	2.8	3.4
West Bank and Gaza	3.3	12.2	5.9	2.2	-0.8	0.9	4.3	4.1

	00-10 <sup>a</sup>	2011	2012	2013	2014e	2015f	2016f	2017f
<b><i>Recently transitioned to high-income countries<sup>b</sup></i></b>								
Oman	3.3	-1.1	7.1	3.9	4.1	3.7	3.6	3.5
Saudi Arabia	5.1	10.0	6.8	5.1	4.3	4.6	4.1	4.3

Source: World Bank.

World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not significantly differ at any given moment in time. Data for Syria are excluded due to uncertain political situation.

a. GDP growth rates over intervals are compound average; current account balance shares are simple averages over the period.

b. The recently high-income countries are based on World Bank's country reclassification from 2004 to 2014.

# SOUTH ASIA



Growth in the South Asia region rose to 6.9 percent in 2014 and is expected to continue firming over the forecast period, led by a cyclical recovery in India and supported by a gradual strengthening of demand in high-income countries. The decline in global oil prices has been a major benefit for the region, driving improvements in fiscal and current accounts, enabling subsidy reforms in some countries, and facilitating the easing of monetary policy. Macroeconomic adjustments in India since 2013 have reduced potential vulnerability to headwinds from the tightening of monetary policy in the U.S. Risks to the outlook are balanced, and depend on the implementation of structural reforms, including those that help to delink fiscal balance sheets from global energy prices. Political uncertainty, stressed bank balance sheets, and the ability to maintain fiscal discipline are some of the other key risks to the region.

## Recent Developments

Aggregate growth in South Asia (SA) rose to 6.9 percent in 2014, its fastest pace in three years. Further momentum is expected in 2015 in line with the cyclical recovery in India, the largest regional economy. Revised GDP data for India show a faster rebound than initially estimated (Figure 2.45), with growth rising to 7.3 percent in the recently-completed fiscal year (FY2014–15, ending in March). The upward revisions—deriving mainly from improvements in data sources used to compute GDP alongside base-year revisions to better capture the changing structure of the economy—show strengthening manufacturing and strong growth in government consumption offsetting weakness in external demand over the past year. Higher frequency activity data show that the domestic recovery is picking up (Figure 2.46): momentum in industrial output has picked up strongly since the start of the year and while business sentiment data are pointing to a sustained acceleration in the service sector. Meanwhile, earlier tightening of monetary policy and domestic policy measures such as limited increase in mandated minimum procurement prices for grains has sent inflation tumbling, increasing real household disposable incomes.

In the rest of the region, activity and growth have remained robust, owing to healthy remittances, the

**FIGURE 2.45 India: Real GDP growth**

GDP revisions show the downturn has been sharper and the subsequent recovery stronger than initially estimated.



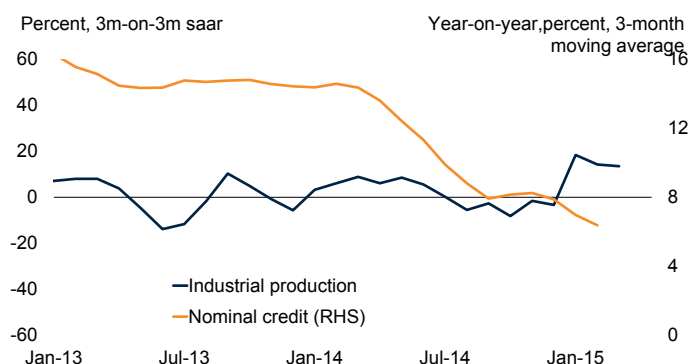
Sources: Haver Analytics and World Bank.

fall in global oil prices, strong tourist inflows (Bhutan, Maldives, Nepal, and Sri Lanka), good harvests (Afghanistan, Bangladesh and Pakistan), the construction of major hydropower projects, and a relaxation of credit controls (Bhutan). These factors have helped to compensate for sluggish export growth (Figure 2.47). In Nepal, the earthquake in April and associated aftershocks have taken a huge toll in terms of human life lost, but also severely damaged infrastructure and affected activity. In Pakistan, an easing of political tensions toward the end of last year has helped already strong service sector growth, and the recent trade and investment agreements with China worth \$28 billion in infrastructure and energy proj-

The main author of this section is Tehmina Khan.

### FIGURE 2.46 India: Industrial production and credit

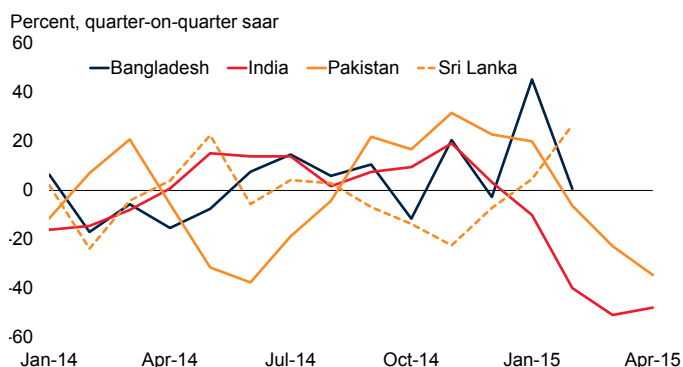
High frequency data show industrial production gaining momentum but weak external demand and slow credit growth.



Sources: IFS, Haver Analytics, and World Bank.  
Note: SAAR refers to seasonally adjusted and annualized data.

### FIGURE 2.47 Export growth

Regional exports have struggled to build momentum since the second half of last year.



Sources: IFS, Haver Analytics, and World Bank.  
Note: SAAR refers to seasonally adjusted and annualized data.

ects to connect China's western regions with Pakistan's Gwadar port have buoyed investor confidence, with current 5-year CDS spreads some 400 basis points lower than in December 2014.

Remittances inflows have been particularly strong in Pakistan, amounting to \$13.3bn in the first three quarters of FY2014–15 (a 15 percent increase from a year earlier), helping shore up consumption in the face of energy bottlenecks that have hampered production and exports. Flows to Sri Lanka and Bangladesh have also remained strong, in the latter, helping to blunt the impact on the economy of recent political tensions and a transport blockade in February that affected garment exports. In Nepal, the outflow of migrants has continued to be strong after a period of massive growth (with the stock of

migrants increasing from about 1 million in 2010 to around 2 million in 2013). However, remittances growth decelerated in 2014, possibly reflecting less use of formal transfer channels. Remittances to India were broadly flat during 2014 and may reflect the diversion of investment-oriented remittances towards the higher returns offered by Indian stock markets under a simplified portfolio investment regime for the diaspora introduced in late 2013.

Lower oil prices have improved the terms of trade and helped narrow regional trade deficits (Figure 2.48). Trade deficits in Bhutan, Maldives, Pakistan, and Sri Lanka, should see the largest improvements, given evidence of stronger short-term response of imports to oil price movements. Although India is a major (net) oil importing economy, the improvement is expected to be relatively more modest as diesel and other petroleum products comprise a significant share of exports (World Bank, 2015m). Nevertheless, with lower inflation expectations curbing demand for imported gold as a hedge, India's trade deficit is improving and this has helped narrow the current account deficit to 1.4 percent of GDP in 2014, down from 5.0 percent in mid-2012.

External balances in the region have also been supported by strong remittance inflows. In the case of Pakistan, remittances have been a key factor in helping contain the current-account deficit at an estimated 1.2 percent of GDP in FY2014/15. Together with the strong economic prospects of some economies, strong capital inflows, and healthy or improving current account balances, local currencies have broadly held their value against the U.S. dollar (Figure 2.49). However, the Rupee has come under some pressure in late April and early May, in part reflecting reduced foreign investor appetite for equities and bonds in response to unexpected tax bills that India imposed late last year. On a trade-weighted basis, though, currencies have appreciated slightly in recent months (Figure 2.50) implying a loss of price-competitiveness at a time when export momentum is already negative.

Inflation has fallen to record or multi-year lows in the region (Figure 2.51). Partly reflecting favorable base effects and the impact of lower energy and food prices, the disinflation trend has been further reinforced by relatively strong local currencies, and has facilitated policy easing in India and Pakistan, and

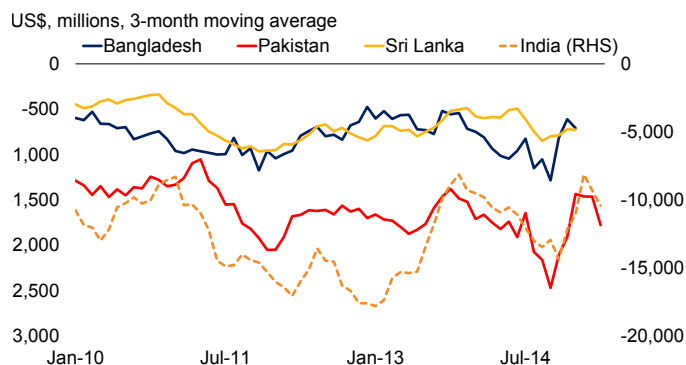
most recently in Sri Lanka. In India, lower inflation has primarily been driven by a sharp deceleration in food prices, although improvements in the monetary policy framework may have also begun to help anchor inflation expectations. Core inflation has also eased in line with inflation expectations.

In India, although diesel prices were liberalized, periodic increases since November in excise taxes on diesel and petrol to bolster government revenues and meet fiscal targets, have meant that domestic fuel prices have been relatively slow to fall. The extent of pass-through from international oil prices in India is estimated at 33 and 20 percent for diesel and gasoline respectively, but is higher in Pakistan and Sri Lanka (World Bank, 2015m), where reductions in (administered) fuel prices have helped to push inflation to multi-year or record lows. Inflation has eased somewhat in Bangladesh, but remains relatively elevated, partly owing to limited spare capacity in the economy and recent transport disruptions. In addition, administered energy prices have not changed since 2013, mainly reflecting efforts to recoup losses at the national energy company.

The decline in global oil prices is also helping support fiscal consolidation efforts in the region. The general government deficit in India narrowed to 6.7 percent in FY 2014–15 (ending March), from close to 8 percent in FY 2011–12, reflecting savings from the elimination of diesel subsidies, higher fuel excise duties, and under-performance in capital spending. In Pakistan, the government has remained focused on fiscal tightening as part of conditions attached to the IMF’s Extended Fund Facility loan program. The decline in global oil prices is helping reduce spending on subsidies and contingent liabilities at state-owned companies, and has enabled adjustments in administered energy prices to the benefit of consumers. Nevertheless, deficits remain large and debt levels high in Pakistan and in several countries in the region (Figure 2.52), in part reflecting poor tax policy and weak tax administration. Together, these have contributed to some of the lowest tax-GDP ratios among developing countries and weakened long-term fiscal sustainability (World Bank 2015k). Afghanistan, meanwhile, is in the midst of a fiscal crisis, with declining revenues and higher security and social

**FIGURE 2.48 Goods trade balance**

*A lower oil import bill is helping curb trade deficits.*

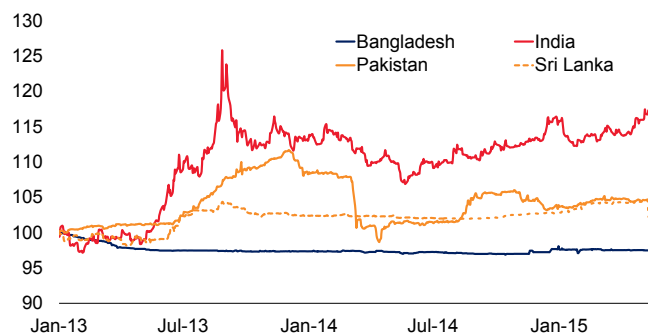


Sources: Haver Analytics and World Bank.

**FIGURE 2.49 Exchange rates against the U.S. dollar**

*Regional currencies have only depreciated marginally against the US dollar...*

LCU vs. US\$, index 100 = January 2013

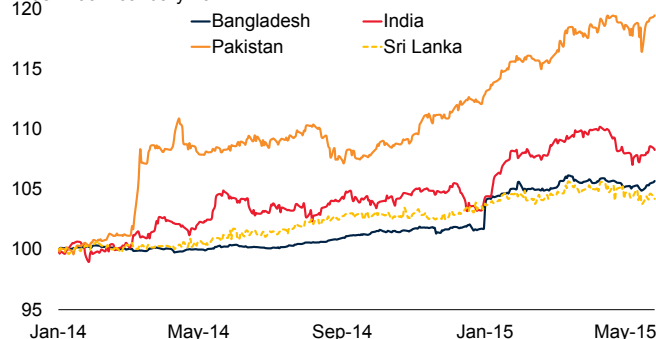


Sources: Haver Analytics and World Bank.  
Note: Increase denotes depreciation.

**FIGURE 2.50 Nominal effective exchange rates**

*...but are appreciating in trade-weighted terms.*

Index 100 = January 2014



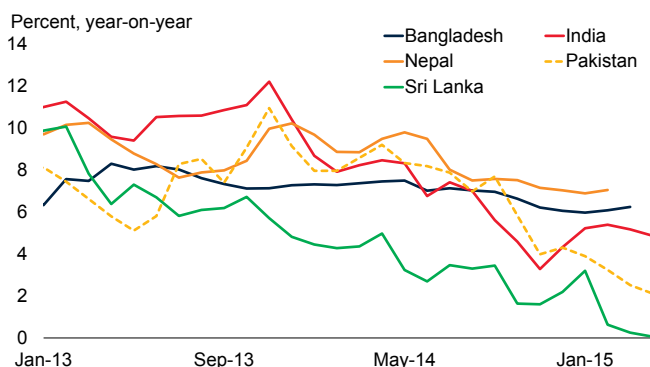
Sources: Haver Analytics and World Bank.  
Note: Increase denotes appreciation.

benefit spending resulting in a large unfinanced fiscal gap of \$500 million in 2014.

The policy environment is gradually improving in the region, notably in India, where coordina-

**FIGURE 2.51 Inflation**

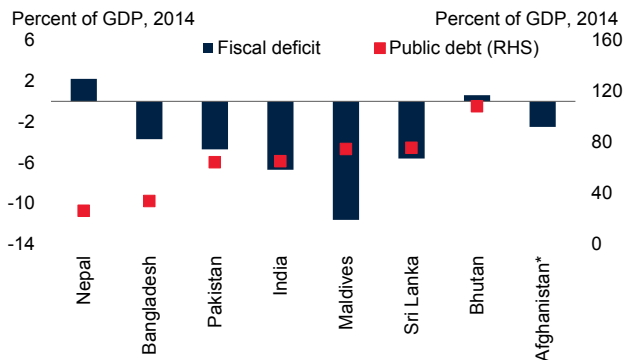
*Inflation has fallen to multi-year or record lows.*



Sources: Haver Analytics and World Bank.

**FIGURE 2.52 Government finances**

*Deficits remain large in several countries and debt levels high.*



Sources: World Bank.

Note: Asterisk denotes that data is not available for public debt.

tion in monetary and fiscal policy has strengthened. On the fiscal side, this is reflected in the improvement in the quality of fiscal consolidation planned in the latest government budget (albeit at the cost of a slower pace of fiscal tightening) that includes an expansion in public investment, simpler and lower corporate taxes offset by higher excise taxes on fuel. Legislation is also pending on a goods and service tax (GST), which would replace the existing system of multiple (and distortionary) local and state taxes with a single unified national GST, but this will likely take time to pass. Regarding monetary policy, the adoption of a formal inflation target has boosted the independence of India's central bank and provides a clear anchor for inflation expectations. Other key reforms in India include the elimination of diesel subsidies in 2014 and, more recently, an increase in foreign shareholding limits in the insurance sector, which should boost FDI.

Reforms are also underway elsewhere in the region, albeit at a slower pace. In Pakistan, an ambitious but piecemeal privatization program has been launched. Severe energy shortages in January 2015 exposed the slow progress thus far on energy reforms. However, almost half (\$15.5 billion) of recent investments agreed with China in April are estimated to be channeled into coal, nuclear, renewable energy and hydropower projects in the next few years. These are expected to add some 10,000mw in electricity generation to the national grid (about half of current installed capacity) by 2017, which should help ease energy constraints. Nepal introduced reforms to the subsidy system in 2014Q4, including the liberalization of petroleum product prices. However, progress on rationalizing prices and dismantling subsidies for liquefied petroleum gas (LPG) has been slower despite a large fiscal cost. In Sri Lanka, policy actions by the newly-elected government include a one-off tax increase for large corporates, a cut in infrastructure spending, and a substantial increase in public sector salaries. These actions have added to investor uncertainty ahead of upcoming parliamentary elections in June.

## Outlook

Regional GDP growth is expected to remain firm at just over 7 percent during 2015, and rise at a moderate pace toward 7.5 percent in 2017, in line with the ongoing recovery in India and broadly stable growth in the rest of the region. In the baseline, stronger regional growth is underpinned by strengthening public investment. Private investment should also improve, but at a slower pace as high levels of NPLs on banking sector balance sheets in Bangladesh, Bhutan, India, and Pakistan hold back the recovery in credit growth.

Tailwinds from the fall in global commodity prices and falling inflation should support real incomes and consumer spending in the early part of the forecast period, as should relatively stable growth in remittance inflows, which are a substantial share of GDP in the region (World Bank 2015k). Although there are risks that the recent fall in global oil prices could adversely impact remittances from oil-producing Gulf economies (a major destination for migrants from SAR), there are several offsetting trends. These include large fiscal and sovereign wealth fund buffers



in Gulf Cooperation Council (GCC) countries that should help to support activity there alongside ongoing large scale construction activities (including preparations for the 2022 FIFA World Cup in Qatar), and improving economic prospects in the U.S. and Euro Area. Most governments are expected to remain focused on rebuilding fiscal space and curbing fiscal deficits through a mix of expenditure and revenue measures (notably the introduction of GSTs or VATs in India and Bangladesh).

Accordingly, growth will be driven primarily by domestic demand during the early part of the forecast period, with a rising contribution from external demand in later years as growth in advanced economies picks up. Although imports should rise as the investment strengthens, current account balances should remain manageable, reflecting macroeconomic adjustments in recent years (in India, partly in response to currency pressures during the “taper tantrum” in mid-2013), domestic fiscal consolidation efforts, and lower oil import bills. As a large, financially-open emerging market economy, India remains exposed to volatility in global financial markets and shifts in global portfolio allocations that may follow policy rate hikes in the United States, expected later this year. However, the substantial reduction in current account deficits since 2013, record-high foreign exchange reserves, and improvements in the policy environment should also help contain such risks.

- India is expected to continue on its path of recovery, with growth expected to reach 8 percent in FY2017–18, from 7.5 percent in FY2015–16. The improvement in the outlook hinges on steady progress on key reforms, including removing bottlenecks in public-private partnerships, the GST bill, and input market reforms (land, labor and finance) which are needed to ease supply side and energy constraints. The GST would help create a single markets for goods and broaden the tax base. Fiscal discipline elsewhere would help public capital expenditures to rise as announced in the recent budget, and potentially attract private investment, which has been extremely weak in recent years. The slower pace of fiscal consolidation over the next few years means that fiscal tightening will prove less of a drag, while lower corporate taxes and base-broadening measures

should also help support business confidence and lift private investment.

- Energy shortages in Pakistan, which have weighed on investment, and activity in recent years, are expected to diminish gradually as investment in energy projects increases supply. Credit growth is also expected to pick up, helped by fiscal consolidation. Coupled with solid growth in remittances, and recovering manufacturing and service sector growth, GDP growth is forecast to rise from 3.7 percent in 2015–16 to 4.5 percent in 2017–18.
- In Bangladesh, the growth forecast for FY2015 has been revised down on account of recent political tensions. The forecast is now 5.6 percent, compared with 6.4 percent in the previous forecast and 6.1 percent in FY2014. As tensions settle, growth should pick up in line with a recovery in exports and investment. Consumption should also remain supported by resilient remittance inflows, particularly following the resumption of migration of Bangladeshi workers to Saudi Arabia. With the economy running at capacity, growth is expected to remain at close to potential over the forecast period.
- Among the smaller economies of the region, the severe earthquake in April will weigh on growth in Nepal this year. However activity should rebound as reconstruction efforts are stepped up, and should also remain supported by relatively healthy service sector growth and private consumption spending (with remittances expected to increase). Both Bhutan and Nepal, whose currencies are pegged to the Indian rupee, should also benefit from strengthening growth and lower inflation in India over the forecast period. In Bhutan, the construction of major hydro-power projects and the relaxation of credit controls are expected to lift growth over 7 percent over the forecast period, and even higher once hydro-electricity exports to India begin to rise. Growth in Sri Lanka is expected to decelerate gradually to its potential growth rate, as the government reassesses the investment-led growth model, partially offset by increases in consumption, and strong tourism and remittance inflows. In Afghani-

stan, growth is projected to rise from 2.5 percent in 2015 to 5 percent over the forecast period if political uncertainty diminishes and the security environment improves. However, the fiscal revenue shortfall is expected to persist if reforms to improve revenues continue to stall.

## Risks and Policy Challenges

The key risks for the region are balanced and mainly domestic in nature. They relate to whether investment growth—which has stalled in recent years in India, continues to decline in Pakistan (Figure 2.53), and has weakened in Bangladesh more recently—strengthens as forecast. External risks include potential headwinds from financial market volatility as monetary policy is tightened in the U.S., although these are mitigated by a significant improvement in current account balances in the region. Slower growth in the Gulf region or a disruption of oil trade (due to conflicts in the MENA region) could affect remittance inflows and lift oil prices, with repercussions for the region. Upside risks include a faster pace of reforms in India and other countries, better-than-anticipated growth in high-income countries, and a fall in oil prices below current baseline projections.

The regional growth outlook is predicated on the ability of governments to deliver on reforms and on a pickup in domestic investment, both of which are essential to ease infrastructure bottlenecks over the medium term. In India, there is a risk that the pas-

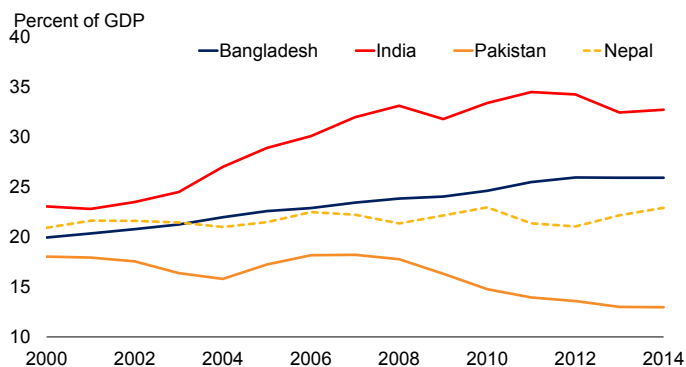
sage of key legislative bills pending in parliament (land acquisition reforms and GST) is delayed which could dampen investor sentiment and weigh on infrastructure spending plans. Energy remains a key constraint, and the fall in oil prices over the past year represents a rare opportunity to rationalize energy prices as well as undertake wide-ranging energy sector reforms. To the extent that credible reform agendas boost investor sentiment, they will also help create a virtuous cycle of stronger investment (including foreign investment) and output growth in the short term. If, however, reforms stall, this could result in significantly lower investment and growth than projected in the baseline.

Political uncertainty remains an important risk factor in Afghanistan, Bangladesh, Nepal, and Pakistan. In addition to delaying or distracting attention from legislative reforms, it could hold back broader investment sentiment and spending. In Pakistan, promised Chinese investments are contingent on improvements in security and the fulfillment of institutional, regulatory, logistical and other commitments by the government. In Bhutan, delays in the construction of hydropower projects, and in Nepal uncertainty over the extent to which FDI commitments translate into hydropower investments remain key risks. The recent natural disaster in Nepal has added to these risks, with policy makers likely to be focusing attention on disaster relief and reconstruction.

In addition, stressed banking sectors and corporate balance sheets are key downside risks in several countries in the region. Corporate leverage in India is among the highest among major emerging market economies, and foreign currency debt in the form of external commercial borrowings has been steadily increasing over the past decade (Lindner and Jung, 2014). In both India and Bangladesh banking sector strains are largest in state-owned banks. In Pakistan, the heavy reliance of the government on the banking sector for budgetary borrowing is crowding out private sector credit growth. In the absence of measures to address problem loans on banking sector balance sheets (Figures 2.54 and 2.55), rising global funding costs (as U.S. policy rates rise) could impede already weak credit growth (Figure 2.56) and a strengthening of investment. In Nepal, significant damage to physical infrastructure (private and public) may present short to medium term risks to financial sector stability from potential runs on the banking sector that trigger a liquidity crisis, and if banks see

**FIGURE 2.53 Investment**

*Investment as a share of GDP has trended lower in Pakistan in recent years to extremely low levels.*



Sources: Haver Analytics and World Bank.

their capital buffers eroded by the physical destruction of real estate pledged as collateral or a surge in NPLs (as income streams of debtors are disrupted).

Other key risks and policy challenges include the ability to maintain fiscal discipline. In India, fiscal consolidation has been relaxed in an attempt to raise public investment. However, even this relaxation in fiscal targets could prove hard to meet if asset divestment and subsidy targets are not met. In Pakistan, in the absence of concerted tax policy reforms that successfully raise tax revenues (particularly direct taxes), the ability to meet fiscal deficit targets is likely to depend on the ability of the government to restructure and privatize loss-making enterprises. Similarly, in Sri Lanka, the quality of fiscal consolidation underway has deteriorated, and the government could potentially overshoot its fiscal targets in the short term. Nepal's budget surplus is likely to shrink reflecting the impact of the earthquake on revenue collection and rising government spending on relief and reconstruction.

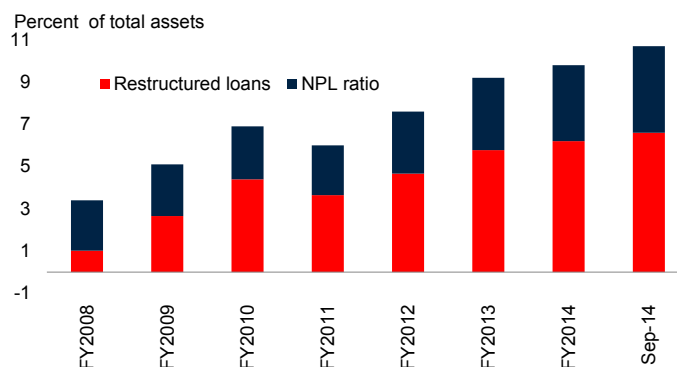
Moreover, the recent decline in oil prices provides a major opportunity to permanently decouple fiscal balances from international oil price movements. Although progress is being made in India on this front<sup>1</sup>, there has been limited pricing reform in Bangladesh and Pakistan. In Pakistan, energy pricing reforms are particularly important given the country's heavy dependence on imported oil in electricity generation, and heavily subsidized electricity tariffs that cost 1.2 percent of GDP in FY 2013–14 (World Bank, 2015m).

Finally, greater regional integration and further trade opening will yield important benefits. Although most countries in SAR have substantially liberalized trade and investment regimes in recent decades, most economies remain highly protected, vis-à-vis intra-regional trade and trade with respect to other developing or high-income regions (Fukase and Martin, 2015). A comparison of import duty (as a share of goods imported) in South Asia suggests that tariff barriers are much higher in the region compared to ASEAN countries (Ding and Masha, 2012). Deeper economic ties and a reduction in

<sup>1</sup>India has deregulated diesel prices, increased excise duties on petroleum and diesel, and under the Direct Benefit Transfer scheme, begun to deposit entitled subsidies directly into the bank accounts of consumers for the purchase of market-priced LPG cylinders. See World Bank (2015m) for more details.

**FIGURE 2.54 India: Impaired loans**

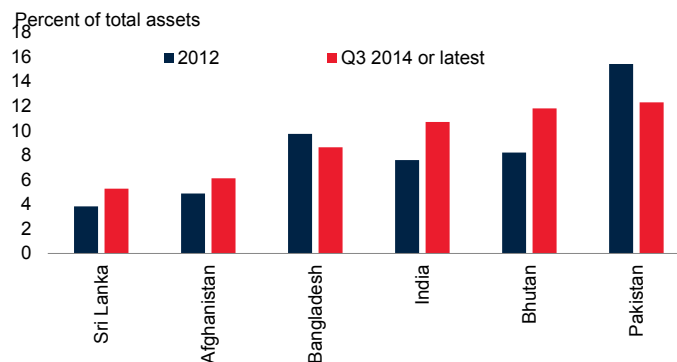
Bank asset quality has deteriorated in India in recent years.



Sources: IMF, Haver Analytics and World Bank.

**FIGURE 2.55 Non-performing loans**

NPLs are high across the region ...

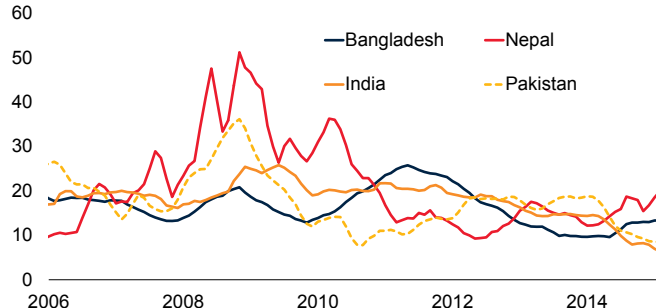


Sources: IMF  
Note: Data for India includes restructured loans

**FIGURE 2.56 Credit growth**

...which has weighed on bank lending.

Nominal, year-over-year, percent, 3-month moving average



Sources: IFS, World Bank

trade barriers would provide opportunities to benefit from technological spillovers, improve access to the large U.S. market, and stimulate more productive growth in domestic industries.

**TABLE 2.9 South Asia forecast summary***(Annual percent change unless indicated otherwise)*

	00–10 <sup>a</sup>	2011	2012	2013	2014e	2015f	2016f	2017f
<b>GDP at market prices<sup>b,e</sup></b>	6.7	7.0	5.4	6.3	6.9	7.1	7.3	7.5
GDP per capita (units in US\$)	5.1	5.5	3.9	4.8	5.5	5.7	6.0	6.2
PPP GDP <sup>c</sup>	6.7	7.0	5.4	6.3	7.0	7.1	7.3	7.5
Private consumption	5.9	8.3	6.0	5.6	6.3	6.5	6.3	6.2
Public consumption	6.5	6.2	3.5	6.6	9.0	8.4	7.2	6.5
Fixed investment	9.6	11.1	3.2	2.5	5.0	7.0	11.3	13.0
Exports, GNFS <sup>d</sup>	13.1	15.0	7.9	6.5	2.3	3.2	4.8	6.9
Imports, GNFS <sup>d</sup>	10.9	17.7	8.1	-2.9	-0.2	4.2	6.8	8.5
<b>Net exports, contribution to growth</b>	-0.3	-1.8	-0.7	2.6	0.7	-0.4	-0.8	-0.8
<b>Consumer prices (annual average)</b>	6.2	9.8	9.4	10.1	6.6	...	...	...
<b>Fiscal balance (percent of GDP)</b>	-7.4	-7.6	-7.2	-6.9	-6.7	-6.5	-6.0	-5.8
<b>Memo items: GDP at market prices<sup>e</sup></b>								
South Asia excluding India	5.0	5.0	5.1	5.7	5.8	5.7	5.8	5.9
India	7.4	6.6	5.1	6.9	7.3	7.5	7.9	8.0
Pakistan	4.2	2.7	3.5	4.4	5.4	6.0	3.7	4.5
Bangladesh	6.1	6.5	6.0	6.1	5.6	6.3	6.7	6.7

Source: World Bank.

World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not differ at any given moment in time.

a. Growth rates over intervals are compound weighted averages; average growth contributions, ratios and deflators are calculated as simple averages of the annual weighted averages for the region.

b. GDP at market prices and expenditure components are measured in constant 2010 U.S. dollars.

c. GDP measured at PPP exchange rates.

d. Exports and imports of goods and non-factor services (GNFS).

e. National income and product account data refer to fiscal years (FY) for the South Asian countries, while aggregates are presented in calendar year (CY) terms. The fiscal year runs from July 1 through June 30 in Bangladesh, and Pakistan, and April 1 through March 31 in India. Due to reporting practices, Bangladesh and Pakistan report FY2012/13 data in CY2013, while India reports FY2012/13 in CY2012. 2014 data for Bangladesh show growth in 2014-15.

**TABLE 2.10 South Asia country forecasts***(Real GDP growth at market prices in percent, unless indicated otherwise)*

	00–10 <sup>a</sup>	2011	2012	2013	2014e	2015f	2016f	2017f
<b>Calendar year basis<sup>b</sup></b>								
Afghanistan	12.8	6.1	14.4	3.7	2.0	2.5	5.0	5.1
Bangladesh	6.2	6.3	6.1	5.9	6.0	6.5	6.7	6.7
Bhutan <sup>c</sup>	8.7	7.9	2.0	5.7	6.9	7.9	8.4	7.0
India	7.2	7.5	5.5	6.4	7.1	7.4	7.8	8.0
Maldives <sup>d</sup>	7.0	6.5	1.3	4.7	5.0	5.3	5.0	5.0
Nepal	3.8	4.1	4.3	4.6	4.8	4.4	5.0	5.5
Pakistan	4.2	3.1	4.0	4.9	5.7	4.8	4.1	4.5
Sri Lanka	5.2	8.2	6.3	7.3	7.4	6.9	6.6	6.5
<b>Fiscal year basis<sup>b</sup></b>								
Bangladesh <sup>e</sup>	6.1	6.5	6.0	6.1	5.6	6.3	6.7	6.7
India <sup>g</sup>	7.4	6.6	5.1	6.9	7.3	7.5	7.9	8.0
Nepal <sup>f</sup>	3.9	3.4	4.9	3.8	5.5	4.2	4.5	5.5
Pakistan	4.2	2.7	3.5	4.4	5.4	6.0	3.7	4.5

Source: World Bank.

World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not significantly differ at any given moment in time.

a. GDP growth rates over intervals are compound average; current account balance shares are simple averages over the period.

b. Historical data is reported on a market price basis. National income and product account data refer to fiscal years (FY) for the South Asian countries with the exception of Afghanistan, Maldives and Sri Lanka, which report in calendar year (CY). The fiscal year runs from July 1 through June 30 in Bangladesh, Bhutan, and Pakistan, from July 16 through July 15 in Nepal, and April 1 through March 31 in India. Due to reporting practices, Bangladesh, Bhutan, Nepal, and Pakistan report FY2012/13 data in CY2013, while India reports FY2012/13 in CY2012. GDP figures presented in calendar years (CY) terms for Bangladesh, Nepal, and Pakistan are calculated taking the average growth over the two fiscal year periods to provide an approximation of CY activity. Historical GDP data in CY terms for India are the sum of GDP in the four calendar quarters.

c. GDP data for Bhutan is on a CY basis.

d. Data for Maldives is GDP data at basic prices (i.e. excluding taxes and including subsidies).

e. 2014 data for Bangladesh show growth in 2014-15.

f. Nepal forecasts are preliminary.

g. Data for Fiscal Year 2000-2012 is old GDP series (base year is FY 2005). Subsequent data is revised GDP series (base year FY 2012.)

# SUB-SAHARAN AFRICA



GDP growth in Sub-Saharan Africa rose from 4.2 percent in 2013 to 4.6 in 2014, supported by domestic demand. The World Bank forecast has the region expanding at a slower pace in 2015, with growth averaging 4.2 percent, a downward revision of 0.4 percent relative to the January 2015 Global Economic Prospects (GEP). Prospects in Angola and Nigeria have deteriorated because of the sharp drop in the price of oil, and in South Africa because of the ongoing difficulty in overcoming electricity problems. Risks to the outlook remain tilted to the downside. On the domestic front, risks associated with elections, the Boko Haram insurgency, the Ebola crisis, and fiscal vulnerabilities dominate. China's slowdown, tightening of monetary policy in the United States, and the fragility of the recovery in Europe, remain as key external risks.

## Recent Developments

GDP growth in Sub-Saharan Africa improved to an average of 4.6 percent in 2014, up from 4.2 percent in 2013, but weaker than the average of 6.4 percent during 2002–08, supported by infrastructure investment and consumer spending. Growth softened around the turn of the year owing to headwinds from the plunge in the price of oil. Sub-Saharan Africa's oil exporters, which account for nearly half of the region's GDP, are experiencing a major adverse shock<sup>1</sup>. Their economies depend heavily on oil for revenues and foreign reserves (Figure 2.57). Between June 2014 and January 2015, oil prices declined by nearly 50 percent, more than the prices of other commodities, and have remained low despite the recent uptick (Figure 2.58). This has put substantial pressures on the fiscal and current account balances of oil exporters.

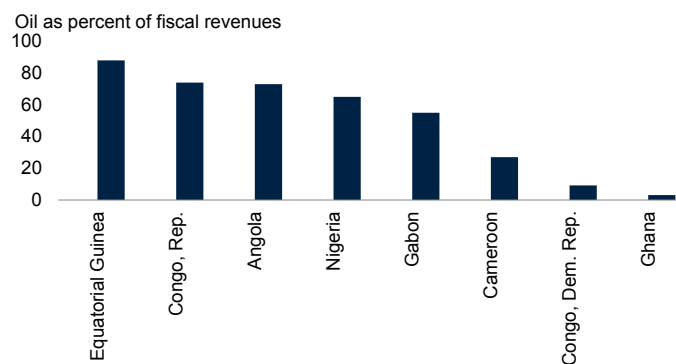
The oil exporters in Sub-Saharan Africa are less resilient to the price shock than many other oil-exporting countries because of their much more limited policy buffers. In Nigeria, the Excess Crude Account, a sovereign wealth fund, totaled just \$2.0 billion at the end of 2014. Gross international reserves fell 20 per-

<sup>1</sup>The main author of this section is Gerard Kambou.

<sup>1</sup>The region's main oil exporters include Angola, Cameroon, Congo (Republic), Chad, Equatorial Guinea, Gabon, and Nigeria. Of these, Nigeria and Angola are the largest; they are also the region's first and third largest economies.

**FIGURE 2.57 Fiscal vulnerability**

Oil accounts for up to 90 percent of fiscal revenues for the region's oil exporters.



Source: IMF Country reports. Note: Latest available from latest IMF Article IV reports.

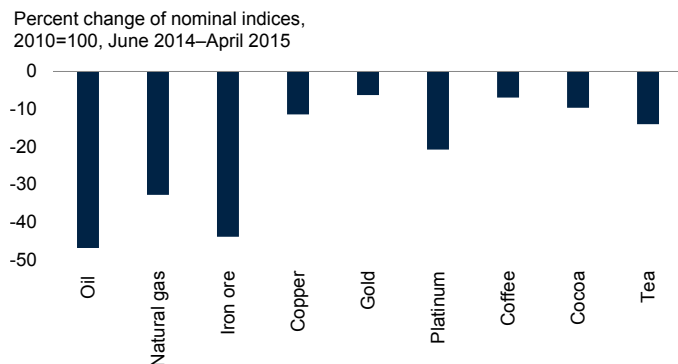
cent to \$34.25 billion (6.0 percent of GDP), drawn down by the central bank in its attempt to support the naira. In March, Standard & Poor's downgraded Nigeria's credit rating from B+ to BB-.

Several of the region's oil exporters have started to adjust. In Angola, the oil price assumption in the 2015 budget was revised down to \$40/bbl from the original assumption of \$81/bbl. In Nigeria, it was reduced to US\$53/bbl from the earlier forecast of \$65/barrel. The corresponding downward revision in expected revenues induced plans to cut public spending. In Angola, Parliament approved a 25 percent reduction in spending from the original plan for 2015. The cuts cover public investment projects



### FIGURE 2.58 Commodity prices

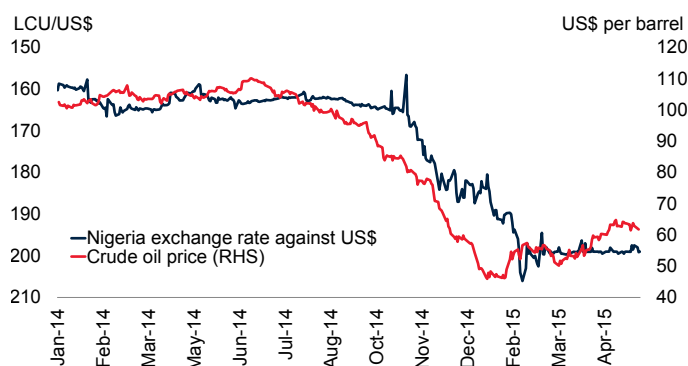
Since June 2014 oil prices have declined by more than 40 percent.



Source: World Bank.

### FIGURE 2.59 Nigerian naira

Oil prices continue to weigh on the Nigerian naira.



Source: Bloomberg. Note: Decrease denotes "depreciation".

and current expenditures, including subsidies. In Nigeria, the 2015 federal government budget passed by the Senate indicates sharp reductions in capital expenditures. With the lower government spending, the non-oil economy in many of these countries is faltering, especially in the least diversified economies (Angola and Equatorial Guinea). Nigeria's non-oil output growth slowed to 5.6 percent in year-on-year terms in the first quarter of 2015, down from 6.4 percent in the fourth quarter of 2014.

Sharp currency depreciations, and foreign reserve losses, prompted adjustments in monetary and exchange rate policies. The Central Bank of Nigeria raised the policy rate from 12 to 13 percent in November. However, with oil prices declining, the naira continued to depreciate against the U.S. dollar. The overall depreciation between June 2014 and

February 2015 was more than 20 percent (Figure 2.59). In response, the central bank ended its managed float exchange-rate regime, closing down the Dutch Auction System window. The exchange rate is now set in the interbank market. The naira rebounded in March and was stable through April, as successful elections helped improve market sentiment, but remained weak (Figure 2.60).

In Angola, the central bank hiked its key interest rate by 50 basis points, to 9 percent, in the fourth quarter, to anchor inflation expectations. Following a gradual weakening of the Angolan kwanza, in early June, the central bank adjusted the official exchange rate, leaving the kwanza 14 percent weaker than at the start of 2015. Several of the region's oil exporters (Cameroon, Chad, Congo Republic, Equatorial Guinea, and Gabon) share a common currency, the CFA franc, which is pegged to the euro. With the euro depreciating against the dollar, the CFA franc has also depreciated against the dollar. This has helped smooth adjustment to the oil-price shock for these countries, by boosting export earnings in domestic currency.

In contrast to oil exporters, the oil-price plunge has provided cyclical support to real incomes in oil-importing countries. Cheaper fuel helped lower inflation and improve current accounts in the first quarter of 2015. In Kenya and South Africa, inflation rates moved back within their target range, allowing central banks to keep interest rates steady. By contrast, the naira devaluation added to price pressures in Nigeria, while Ghana continued to battle double-digit inflation, at 16.8 percent in April (Figure 2.61). Against the broad-based strength of the U.S. dollar, even the currencies of oil-importing countries faced downward pressures, with, for example, the Zambian kwacha falling sharply. In trade-weighted terms, most of the region's currencies have remained broadly stable, with the exception of the naira and the Ghanaian cedi (Figure 2.62). Despite the nominal depreciation against the U.S. dollar the naira has appreciated considerably in real effective terms since 2011, which may hurt exports.

Growth in South Africa, the region's largest oil-importing economy, was stronger than expected in the fourth quarter of 2014, supported by a rebound in the goods-producing sectors, after slowing earlier in the year. This rebound failed to carry into the first



quarter of 2015, however. Growth was held back by energy shortages, output contraction in agriculture, weak investor confidence, policy uncertainty, and the anticipated gradual tightening of monetary and fiscal policy. Elsewhere, the economies of Guinea, Liberia, and Sierra Leone, the countries most affected by the Ebola outbreak, remained weak as activity in mining, services, and agriculture continued to contract.

Spreads on sovereign credit-default swaps rose sharply in a number of commodity exporters, suggesting that investors are discriminating among the region's frontier markets based on their economic outlook. The sovereign spreads for the oil exporters Angola, Gabon, Ghana, and Nigeria have remained high, well above the 2013 "taper tantrum" peak (Figure 2.63). The spreads for Zambia have also remained elevated, reflecting investors' concerns about soft copper prices, and uncertainty over government policy.

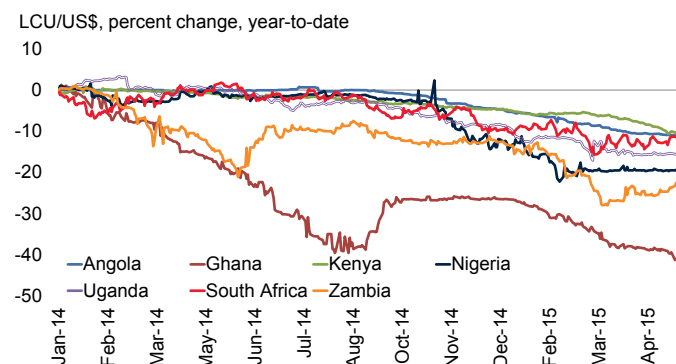
At the same time, many of the region's frontier markets are taking advantage of the very low global interest rates, and have issued Eurobonds to finance infrastructure projects. Eurobond issuance in the region has remained robust (Figure 2.64), as financing costs in the Euro Area have fallen sharply following the European Central Bank's introduction of an ambitious program of quantitative easing in March. Frontier markets' increased access to international capital markets was demonstrated by Ethiopia's oversubscribed debut 10-year US\$1 billion bond, issued in December 2014, and Côte d'Ivoire's return to the market in February. Debt-to-GDP ratios for the countries with increased bond market access (Côte d'Ivoire, Ghana, and Mozambique) have picked up in recent years. While debt burdens remain manageable, continuing currency depreciations against the U.S. dollar could lead to a rapid increase in the value of foreign-currency debt for these countries.

## Outlook

Growth in Sub-Saharan Africa is projected to slow to 4.2 percent on average in 2015 from 4.6 percent in 2014, a downward revision of 0.4 percentage points relative to the January 2015 GEP. The revisions reflect the reassessment of prospects in Angola, Nigeria, and South Africa. Growth in the region is expected to pick up in 2016 to an average of 4.6 percent and to accelerate to 5.0 percent in 2017 (Table 2.11). The increase in growth will be driven

**FIGURE 2.60 Exchange rates**

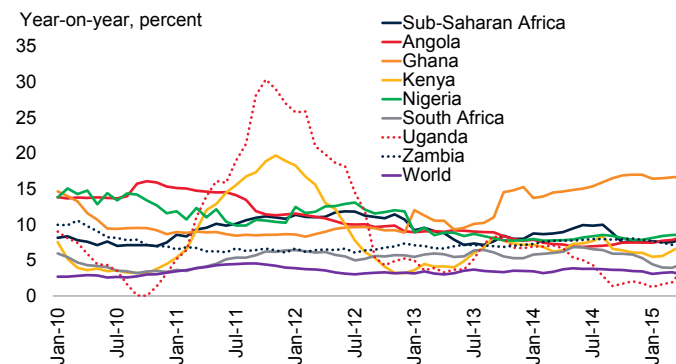
*The region's major currencies continue to depreciate against the U.S. dollar.*



Source: Bloomberg.

**FIGURE 2.61 Inflation**

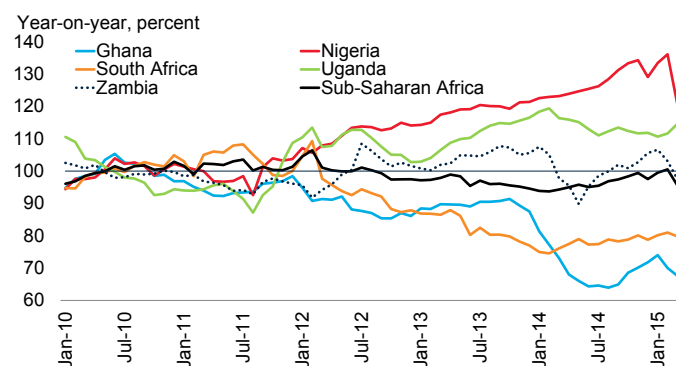
*With the exception of Ghana price pressures look contained in the region.*



Source: World Bank

**FIGURE 2.62 Real effective exchange rates**

*With the exception of the Nigerian naira, REERs have remained broadly stable.*

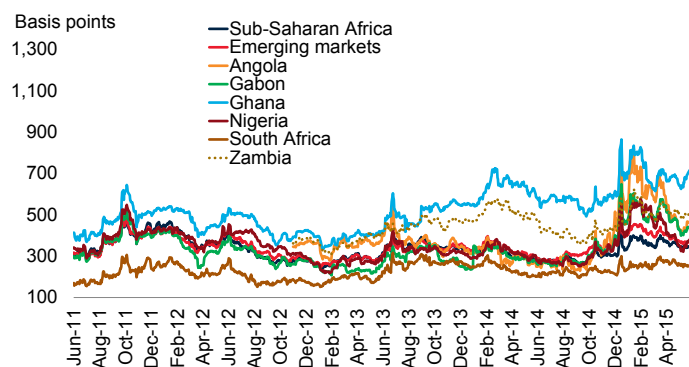


Source: World Bank.  
Note: Decrease denotes "depreciation".

by domestic demand, supported by continuing infrastructure investment and private consumption fueled by lower oil prices. External demand is also expected to

**FIGURE 2.63 Sovereign bond spreads**

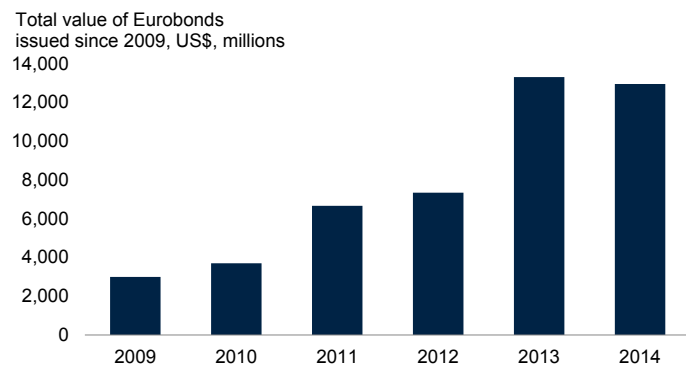
Sovereign spreads of oil exporters rose sharply.



Source: Bloomberg.

**FIGURE 2.64 Eurobond issuance**

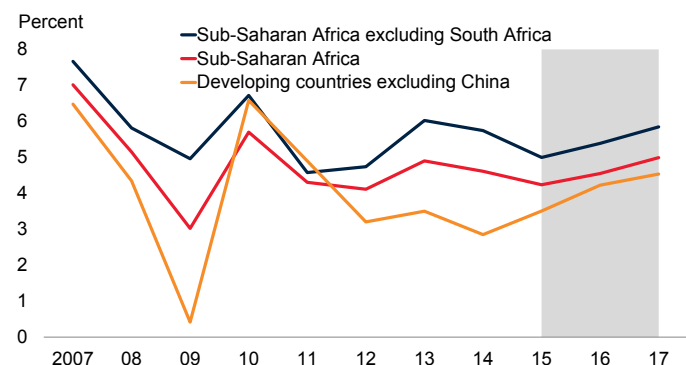
Eurobond issuance in the region is set to rise further.



Source: Bloomberg.

**FIGURE 2.65 GDP growth outlook**

Growth is expected to slow in the region in 2015 and pick up moderately in 2016-17.



Source: World Bank.

Note: The shaded area represents forecasts.

support growth, because of stronger prospects in high-income economies. Excluding South Africa, GDP growth for the rest of the region is projected to average

5.0 percent in 2015 and 5.6 percent in 2016–17, a faster pace than several other developing regions (Figure 2.65).

Consumption dynamics will differ for oil exporters and importers. Private consumption growth is expected to slow in the oil exporters as cuts to subsidies to alleviate pressure on the budget result in higher fuel costs. Purchasing power is also expected to decline due to currency weakness, which would push up the cost of imports in local currency. By contrast, lower fuel prices are expected to contribute to lower inflation in the oil importers, which should help boost consumers' purchasing power and support domestic demand. The price level impact of currency depreciation could, however, offset some of these effects. Meanwhile, remittance inflows in the region are projected to decelerate in 2015, reflecting in part the appreciation of the U.S. dollar, before picking up gradually in 2016–17.

China's investment slowdown, and low commodity prices, suggests that FDI flows may not provide much support to growth. Furthermore, government plans in oil exporting countries to reduce the budget deficit are likely to hit capital expenditure more than current expenditure, as governments seek to limit cuts in public-sector wages or social spending. However, governments in most oil-importing countries, especially the low-income, non-oil commodity exporters, are expected to continue to expand public investment in priority sectors such as electricity and roads. Frontier markets are expected to continue to issue Eurobonds to finance key infrastructure projects.

The fiscal policy stance is expected to remain tight throughout 2015 in oil-exporting countries. The revised budgets in Angola and Nigeria indicate that while capital expenditures will bear the brunt of expenditure measures, recurrent expenditures will also be reduced. Despite these adjustments, fiscal deficits in these countries are likely to remain high because of low revenues. Fiscal deficits are also expected to remain elevated in oil-importing countries, as spending on goods and services and wages continues to expand.

Net exports are projected to make a marginally negative contribution to real GDP growth. Low commodity prices will depress export receipts, especially among oil exporters, even as export volumes rise in some countries. The current account surpluses in Angola and Nigeria are expected to turn into a deficit as their terms of trade have deteriorated sharply. Among oil importers, current account balances are

expected to improve, although import growth will remain strong, driven by capital goods imports.

- In the baseline country forecasts (Table 2.12), Nigeria grows at a slower pace in 2015, as fiscal policy tightens in response to lower oil prices and domestic demand contracts. Growth picks up in 2016 as the fiscal drag moderates, helping boost activity in the non-oil sector, and the new government implements structural reforms to enhance productivity. Output remains modest in Angola, reflecting its vulnerability to lower oil prices, as purchasing power declines, and lower government revenue leads to cuts or delays in capital expenditures. Growth improves only moderately in South Africa, as the ongoing difficulty of resolving the electricity supply constraint continues to hamper economic activity, labor relations remain tense, investor confidence declines, and fiscal consolidation reduces government spending.
- Among frontier-market economies, Côte d'Ivoire, Kenya, and Senegal are expected to grow at a robust pace, supported by strong infrastructure investment. In Ghana, the agreement reached with the IMF will help stabilize the cedi, but fiscal consolidation and high inflation will weigh on growth. In Zambia, growth will remain flat in 2015, owing to soft copper prices and fiscal consolidation, before picking up in 2016–17 as improvements in the regulatory environment enhance the outlook for investment, especially in the mining sector.
- Growth should remain robust in most low-income countries, driven by infrastructure (Ethiopia, Rwanda), mining (Democratic Republic of Congo, Mozambique, Tanzania) investment, consumer spending (Uganda), and agriculture (Ethiopia), although continued weaknesses in the prices of their main exports (base metals) will tend to offset the benefits of the oil-price decline. Countries that export agricultural commodities have experienced a smaller deterioration in their terms of trade (World Bank, 2015n). In Guinea, Liberia, and Sierra Leone, the Ebola crisis will continue to constrain economic activity. Although the danger has receded, the risks of renewed spread and necessary controls on activities will continue to exert downward pressure on economic growth.

## Risks

Risks to the outlook remain tilted to the downside. On the domestic front, political factors associated with elections in a number of countries, and Boko Haram insurgencies in several others, are key risks for the region in 2015. The Ebola epidemic remains a concern. Banking sector weakness has emerged as a potential contingent liability for governments in the region's oil exporting countries. On the external front, a sharper-than-expected slowdown in China, a further decline in oil prices, a stalling of the recovery in Europe, or a sudden deterioration in global liquidity conditions are the main risks.

### Domestic risks

Postponed once for security concerns, Nigeria's presidential election was held, and power was transferred, without a major outbreak of violence. Presidential elections, scheduled in Burundi, Côte d'Ivoire, South Sudan, Tanzania, and Togo, are likely to be contentious and could lead to political instability if the outcomes are contested. Several countries in the region (Cameroon, Chad, and Niger) have joined forces with Nigeria to contain Boko Haram. In spite of recent successes, the conflict may escalate again and force these governments to divert budgetary resources from infrastructure investment to security, which would have a negative impact on long-term growth.

The banking sector in some oil-exporting countries has emerged as a potential contingent liability for their governments. Nigeria's banking sector, in particular, is heavily exposed to oil price declines. About 25 percent of total bank loans were extended to the oil sector through December 2014, as the government sought to increase the presence of Nigerian firms in the sector. With oil prices having declined sharply, some companies may struggle to service these loans. Additionally, to the extent that bank assets consist of foreign currency-denominated domestic lending, a depreciation of the naira will increase financing cost. Non-performing loans may rise, requiring capital injections.

There has been a widespread drop in new cases of Ebola in 2015, suggesting that the vigorous efforts to bring the epidemic under control have been successful. However, severe economic consequences are still being felt in Guinea, Liberia and Sierra Leone, and heightened fears of Ebola could undermine confidence, investment, and travel in these and neighboring countries for some time.

## External risks

Slower-than-expected growth in China would weigh on demand for the region's commodities, driving prices down. A further decline in the already depressed price of metals would lead to a significant drop in export revenues in many countries. A scaling down of operations and new investments in these countries in response to the lower prices would reduce output in the short run, and slow growth momentum over an extended period of years. A further decline in oil prices would also sharply lower revenue in oil-exporting countries, requiring them to undertake deeper fiscal adjustments with sharper expenditure cuts. Some oil companies may delay or even cancel planned investments in 2015.

It is important for Sub-Saharan Africa in general that the recovery in Europe maintains momentum, as this could help boost investment and exports and support growth in the region. Risks are that the recovery might stall as a result of renewed instability in the Euro Area or because of premature tightening of policies.

A sudden adjustment of market expectations to the upcoming tightening of monetary policy in the United States could adversely affect the region's emerging and frontier markets, especially countries that receive substantial portfolio inflows, such as South Africa. However, quantitative easing in the Euro Area should contribute to continued attractive borrowing conditions on Eurobond markets, allowing frontier-market governments to maintain market access. Recent episodes of capital market volatility suggest that countries with large macroeconomic imbalances would face strong downward pressure on the exchange rate, and hence an increased risk of inflation, further constraining policy.

## Policy Challenges

GDP growth in Sub-Saharan Africa is expected to pick up moderately in 2016–17, after slowing in 2015, helped in part by a boost to private consumption from lower oil prices. However, growth continues to be weaker than during the pre-crisis years. Sustaining high GDP growth therefore remains a policy priority for most countries in the region. As policymakers pursue growth objectives, it will be important to pay attention to macroeconomic constraints.

For oil exporters with inadequate buffers to allow for a gradual adjustment of public spending to the lower oil prices, currency depreciation will be the main means available to cushion the impact of the oil-price plunge on their economies. However, countries may need to tighten their macroeconomic stances and strengthen their monetary policy frameworks to prevent inflation induced by currency-depreciation from becoming a constant threat. For many countries, strengthening fiscal positions and restoring fiscal buffers to increase resilience against exogenous shocks will also be necessary. The oil-price shock highlights the need for oil exporters to diversify their economies. This will require policies to remove impediments to private sector activity, and to improve the business environment.

For policy makers throughout the region, the fall in oil prices provides a window of opportunity. Falling oil prices reduce the need for fuel subsidies or make room for higher energy taxes. Fiscal resources released by lower subsidies could be saved, used to rebuild fiscal space, or reallocated towards programs better targeted than fuel subsidies to assist poor households (World Bank, 2015n).

In most economies, structural reforms are needed to ignite and sustain rapid productivity growth. As elaborated in the January 2015 GEP, an acute infrastructure deficit is evident, especially in electrical power and transport. In particular, it will be critical that improvements in public investment management systems are accompanied by efforts to ensure that resources are allocated to the most productive ends. Reform efforts should aim at strengthening project selection, execution, and monitoring, and encourage transparency and accountability in the use of public resources. In addition, reforms will need to focus on improving product and labor markets, easing constraints on trade and investment, and fostering human capital accumulation (McMillan and Harttgen, 2014).



### BOX 2.1 Linkages between China and Sub-Saharan Africa

*China's engagement with Sub-Saharan Africa has expanded greatly over the past decade, to cover all aspects of development. The engagement has spurred growth in the region. Stronger domestic policies will help countries in Sub-Saharan Africa increase the gains from this growing partnership.*

China's economic ties with Sub-Saharan Africa (SSA) have expanded greatly over the past decade. Trade increased from negligible levels in 2000 to more than \$170 billion in 2013. Chinese direct investment in SSA has grown more than six-fold. China's official development assistance to SSA expanded from \$0.5 billion in 2000 to \$3.2 billion in 2013.

The relationship is a complex one, involving multiple and diverse state actors in China, often (but not always) coordinating with state-owned and private corporations in a range of sectors across countries in SSA (Bräutigam 2009; Fijalkowski 2011). Although commodities and associated infrastructure projects have tended to dominate the relationship, Chinese investment in other sectors is also increasing, notably in manufacturing. In recent years, the Chinese government has increasingly provided assistance for social development projects, and has engaged in peacekeeping and security operations (Hanauer and Morris 2014; Fijalkowska 2011).

This box examines China's involvement in SSA and its impact on the region. The focus is on the following four questions:

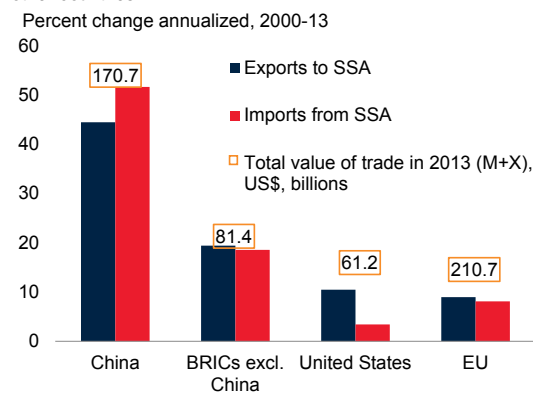
- What is the nature of China's involvement in SSA?
- What has been the impact on growth in SSA?
- What does the slowdown in China mean for the region?
- How can the region increase the gains from its growing partnership with China?

#### What is the nature of China's involvement in SSA?

China has become a prominent trade and financial partner for SSA. Trade with China is growing much faster than that with the United States and the European Union (Figure B2.1.1). China surpassed the United States to become the region's largest trading

**FIGURE B2.1.1 Growth in Sub-Saharan Africa's trade flows, by partner, 2000–13**

*The region's trade with China has grown at a faster pace than with other countries.*



Source: UN Comtrade mirror data.

partner in 2009; in 2013, trade flows with China accounted for 22 percent of the region's total trade with the rest of the world. Official data on Chinese foreign investment and development financing are sparse, but flows to SSA appear to have grown substantially.

#### Trade

Sub-Saharan Africa's trade with China is dominated by commodities. Oil, gas, and metals, sourced from a few countries, account for the bulk of SSA's exports to China (Figure B2.1.2), although the region's exports to the United States, the European Union, and major emerging market economies are even more concentrated in commodities (Figure B2.1.3). In contrast, the region's imports from China are diverse. About one-third comprise capital goods, including vehicles, generators, telecommunications equipment, and factory machinery. Consumer and manufacturing goods account for the remainder (Figure B2.1.2) and are about three times as large as imports from the United States and the European Union.

#### Investment

China is the largest developing country foreign investor in Africa (UNCTAD 2013). The relationship started in the early 1980s, as part of concerted diplomatic efforts promoting Chinese economic cooperation with Africa.

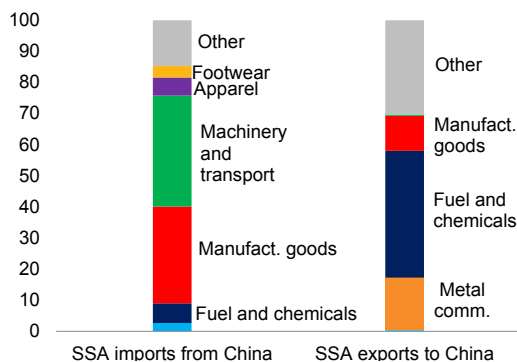
The author of this box is Tehmina S. Khan with contributions from Jiayi Zhang and Raju Huidrom.

## BOX 2.1 (continued)

**FIGURE B2.1.2 Sub-Saharan Africa's trade flows with China, 2013**

Sub-Saharan Africa exports to China are dominated by commodities.

Percent of total

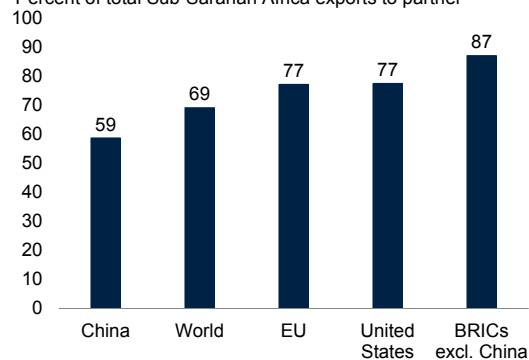


Source: UN Comtrade mirror data.

**FIGURE B2.1.3 Sub-Saharan Africa's commodity exports to major trading partners, 2013**

... but commodities are an even larger share of exports to other major trading partners.

Percent of total Sub-Saharan Africa exports to partner



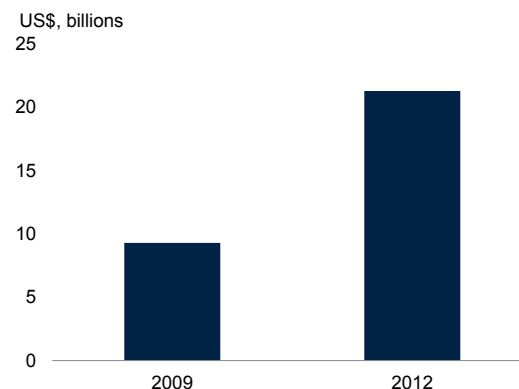
Source: UN Comtrade.

Note: Commodities comprise food and beverages; inedible crude materials; mineral fuels, lubricants, and other related materials; animal and vegetable fats; and chemicals and related products

Initial investments were small, amounting to \$51.9 million for 102 projects (about \$500,000 per project) between 1979 and 1990, with Chinese businesses relying heavily on government-sponsored assistance projects to gain a foothold in local African markets (Government of China 2013; Chun 2013). The distinction between foreign direct investment (FDI) and official assistance may at times be ambiguous. For example, in-

**FIGURE B2.1.4 Cumulative Chinese foreign direct investment in Sub-Saharan Africa**

The stock of Chinese FDI to Sub-Saharan Africa has doubled since 2009.



Source: Government of China 2013.

vestments by Chinese state-owned enterprises can be included in definitions of official flows of development assistance, if they receive subsidized state financing such as export credits (Hanauer and Morris 2014).

In any event, private investment flows are rising fast (Gu 2009) and, to the extent they are channeled via tax shelters, are likely to be underreported (Sun 2014). The officially reported stock of Chinese FDI in Africa was estimated at \$21 billion in 2012, a doubling since 2009 (Figure B2.1.4).<sup>1</sup> Reported flows are similar in magnitude to flows from the United States (figure B2.1.5), with the largest share directed toward the resource sector, notably in Angola, Chad, Niger, Nigeria, Sudan, and Zambia.<sup>2</sup>

Chinese investment in other sectors is substantial, especially in manufacturing (Figure B2.1.6). This is seen in the gradual development of manufacturing clusters in Ethiopia (glass, fur, footwear, and automobiles), Mali (sugar refineries), and Uganda (textiles and steel pipe manufacturing). Although partly driven by growing business opportunities in Africa, the shift toward

<sup>1</sup>FDI data for China are available only for Africa as a whole rather than SSA specifically. According to the Chinese Ministry of Commerce, by the end of 2009, 88 percent of the FDI stock in Africa was located in SSA (cited from GAO Report 2013).

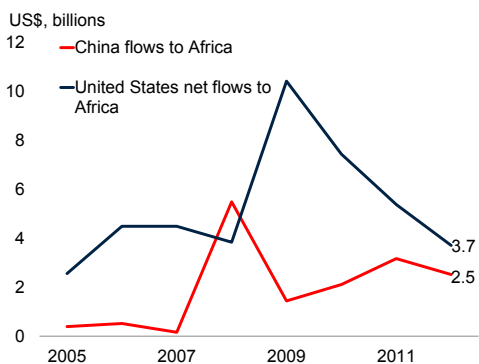
<sup>2</sup>Chinese Ministry of Commerce statistics from <http://www.chinaafricaarealstory.com/p/chinese-fdi.html>.



**BOX 2.1 (continued)**

**FIGURE B2.1.5 Chinese and U.S. foreign direct investment in Africa**

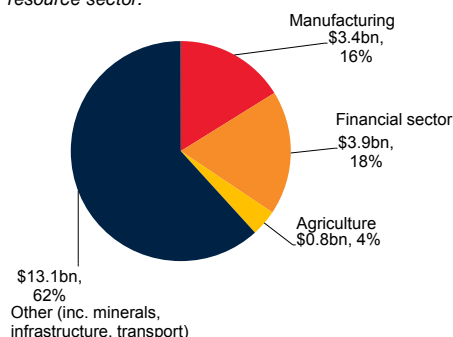
Chinese and US FDI flows to Africa are broadly comparable.



Sources: Ministry of Commerce, China; OECD Statistics on FDI.

**FIGURE B2.1.6 Chinese foreign direct investment in Africa, by sector, 2012**

The largest share of Chinese FDI to Africa has been directed to the resource sector.



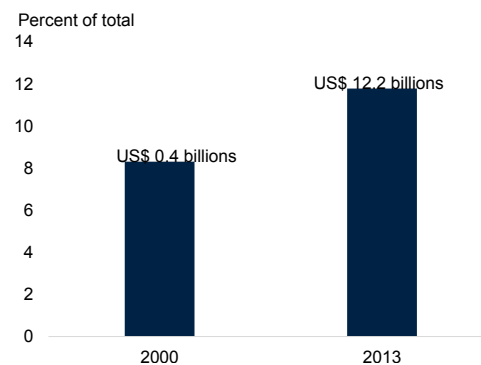
Source: Government of China 2013.

manufacturing is also indicative of Chinese firms' efforts to develop global value chains as domestic labor costs increase relative to lower-cost Africa (Hanauer and Morris 2014). African firms in turn have gained growing access to Chinese markets; since 2012, China has given some 30 countries in SSA zero-tariff treatment (covering about 60 percent of their exports) and is importing a growing share of manufactures from the region (Figure B2.1.7).<sup>3</sup>

<sup>3</sup>Government of China (2013). Growing market access is also reflected in rising SSA manufacturing exports to China. According to Comtrade data, these comprised 11 percent of total exports to China in 2013 compared with 7 percent in 2000.

**FIGURE B2.1.7 SSA manufacturing exports to China**

Exports to China have grown rapidly.



Source: UN Comtrade.

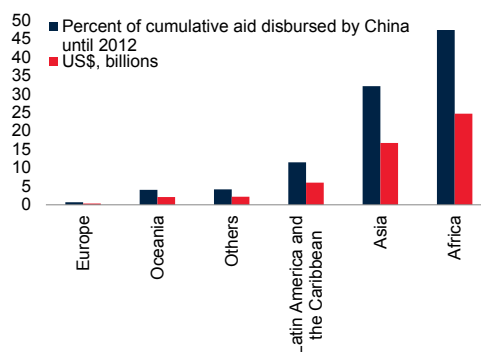
**Development finance**

Africa is the largest recipient of Chinese development financing and its share is increasing. Africa received nearly half of the cumulative \$54 billion provided by China in global foreign aid through 2012 (Figure B2.1.8), significantly more than any other region (Government of China 2011, 2014).

Chinese official development assistance has been, by and large, complementary to aid from Organisation for Economic Co-operation and Development (OECD) countries. Chinese and OECD official development as-

**FIGURE B2.1.8 Distribution of aid and development financing flows from China**

Africa is one of the largest recipients of Chinese aid.

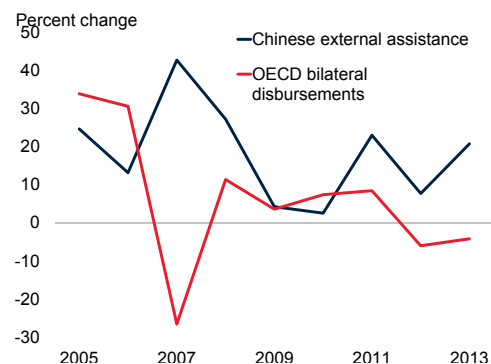


Source: Government of China 2011, 2014.

## BOX 2.1 (continued)

**FIGURE B2.1.9 Chinese development assistance and bilateral aid from OECD countries to Sub-Saharan Africa**

Chinese assistance has grown at a faster pace than bilateral aid from the OECD in recent years...



Sources: OECD; Chinese Statistical Yearbook; MOFCOM. Cited from <http://www.chinaafricarealstory.com/p/chinese-aid.html>.  
Note: OECD = Organisation for Economic Co-operation and Development.

sistance differ substantially in scale, nature, and degree of concessionality (Bräutigam 2011b; Strange et al. 2013).<sup>4</sup> Although Chinese assistance increased rapidly as OECD disbursements declined (Figure B2.1.9), Chinese aid remains well below the OECD's, amounting to \$3.2 billion in 2013 compared with the \$26 billion disbursed by OECD countries in the same year (Figure B2.1.10). Chinese development assistance is frequently packaged into agreements that mix grants and investment, and concessional and non-concessional loans (Bräutigam, 2011a, 2011b).<sup>5</sup>

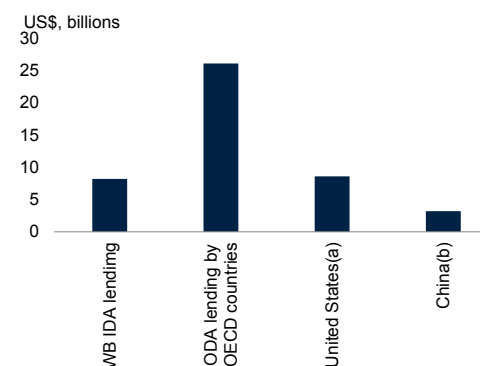
China is also increasingly channeling development assistance through multilateral institutions, including a \$2 billion co-financing fund between the People's Bank

<sup>4</sup>Key differences include definitions, the degree of concessionality, and conditionalities. Official development assistance is defined by the OECD as concessional funding given to developing countries and to multilateral institutions primarily for the purpose of promoting welfare and economic development in the recipient country. China is not a member of the OECD and does not follow its definition or practice on development aid. By this measure, the bulk of Chinese financing in Africa falls under the category of development finance, but not aid (Strange et al. 2013).

<sup>5</sup>There has been a longstanding debate over how the concessionality of these loans is defined. The 2014 White Paper on Aid by the Chinese government offers some clarification, indicating that "the difference between the concessional interest rates and the benchmark interest rates of the People's Bank of China is subsidized by the government's budget."

**FIGURE B2.1.10 Development assistance to Sub-Saharan Africa**

...but is much smaller in size.



Source: World Bank 2013 Annual Report .

a. 2012 OECD Development Assistance Committee statistics.

b. Chinese Statistical Yearbook and MOFCOM. Cited from <http://www.chinaafricarealstory.com/p/chinese-aid.html>.

of China and the African Development Bank in 2014.<sup>6</sup> Finally, OECD country development assistance is typically accompanied by greater conditionality on social development projects and policy reforms. As a result, almost two-thirds of OECD assistance to Sub-Saharan Africa flows to the social infrastructure in health, education, water, and sanitation, or toward emergency relief and food aid (Figure B2.1.11). In contrast, half of Chinese assistance is for infrastructure.<sup>7</sup>

### What has been the impact on growth in SSA?

Growth has accelerated strongly in the region over the past two decades, coinciding with the expansion in economic ties with China. There has been a direct impact

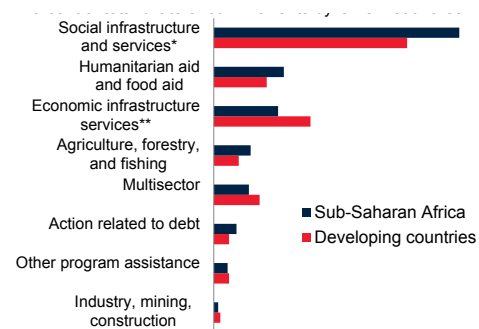
<sup>6</sup>The World Bank has also signed two Memoranda of Understanding recently, one with China Eximbank in September 2013, and the other with China Development Bank in June 2013, to help co-finance projects.

<sup>7</sup>China is also increasingly engaged in combating ebola and in peacekeeping and security operations in Sub-Saharan Africa, supported by growing political relations. An example is the dispatch of combat troops under the UN mandate in Mali—a first for China, which has previously dispatched only noncombat personnel. In part, the increased engagement reflects a desire to reduce the impact of political instability on its supply chain. Thus, the mediation efforts undertaken by China, between government and rebel forces in South Sudan in 2013, and the expanded naval cooperation with Djibouti to secure the Gulf of Aden, may be seen in the light of China's imports of oil from South Sudan. In the first 10 months of 2013, these amounted to 14 million barrels, twice those from Nigeria (Sun 2014).

## BOX 2.1 (continued)

**FIGURE B2.1.11 Bilateral aid from OECD countries to Sub-Saharan Africa, by sector, 2013**

*OECD aid is concentrated in the social sector.*



Sources: Ministry of Commerce, China; OECD Statistics on FDI.

Note: OECD = Organisation for Economic Co-operation and Development.

\* Includes education, health, water and sanitation, and other such services.

\*\* Includes transport and communications and energy.

(via rising trade, investment aid, and flows) and an indirect one (via China's demand for and impact on the prices of global metals and minerals). These impacts have been reflected in a quadrupling of the contribution of exports and investment to growth in gross domestic product in SSA since the 1990s (Figure B2.1.12).

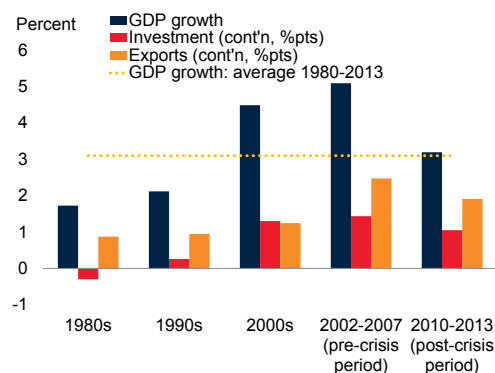
Significant Chinese investment and development finance have been channeled into infrastructure. This is particularly important for SSA, given that transport and energy infrastructure deficits are severe and the returns to investing in infrastructure are large.<sup>8</sup> Improved infrastructure contributed more than half of Africa's improved growth performance in the pre-2008 decade (Foster and Briceno-Garmendia 2010). Between 2003 and 2009, FDI from China contributed almost 2 percentage points to growth in Zambia, about 1 percentage point in the Democratic Republic of Congo and Nigeria, and 0.5 percentage point in Madagascar (Whalley and Weisbrod 2011).

Indirect spillovers from growth in China have also been significant, especially for resource exporters. Drummond and Liu (2013) report that a 1 percentage point increase in China's domestic investment growth

<sup>8</sup>Simulations by Foster and Briceno-Garmendia (2010) suggest that if all African countries were to catch up with Mauritius (the country in SSA with the densest road network), per capita growth in the region could increase by 2.2 percentage points

**FIGURE B2.1.12 Contributions to growth in gross domestic product in Sub-Saharan Africa**

*Investment and exports have underpinned faster growth in Sub-Saharan Africa since the 2000s.*



Source: World Bank.

is associated with an average 0.6 percentage point increase in SSA export growth, with a larger impact on resource-rich countries, especially oil exporters.<sup>9</sup> Renard (2011) points to an additional benefit of China's growth, through reduced consumer and investment prices, as cheaper Chinese manufactures and capital goods displace imports from the United States and the European Union. These may be partially offset by the displacement of local industries through imports from China (e.g., apparel in South Africa and Madagascar; Ademola, Bankole, and Adewuyi 2009).

#### What does slower, more balanced growth in China mean for the region?

In the near term, slower, more balanced growth in China, coupled with a shift toward more consumption and less investment, is weighing on demand and prices for commodities, especially industrial commodities such as iron ore and copper. These effects have been a factor in the negative terms-of-trade shock to metal- and mineral-exporting SSA countries over the past year (World Bank 2015). This situation may help to un-

<sup>9</sup>Busse, Erdogan, and Muehlen (2014) find a positive growth impact from terms-of-trade effects in resource-rich economies (but no impact from Chinese FDI).

**BOX 2.1** (continued)

wind some Dutch disease pressures—stemming from real appreciation against the renminbi and weakening the competitiveness of African manufacturing—to which China's demand for raw materials had contributed over the past decade (Jeanneney and Hua 2015). In addition, tightening financial conditions in China may lead to higher funding costs for banks, which could slow Chinese companies' investment abroad, including in SSA (IMF 2014).<sup>10</sup>

Over the medium to long term, Chinese economic engagement should continue to grow, as reflected in recent proposals by the Chinese government to invest in regional rail networks, eventually linking five East African countries.<sup>11</sup> In part, this undertaking reflects growing opportunities in SSA, as well as China's growing strategic (political, economic, and security) interests in the region (Sun 2014). In the mining sector, for instance, SSA is one of the two major regions (alongside the Arctic) that have been less well-explored. The African market share is expected to grow, given the depletion of easily accessible mineral deposits in advanced countries and improvements in technology (ICMM 2012). Accordingly, although investments in infrastructure and mining are likely to slow, given the recent decreases in global commodity prices, Chinese investment should continue to add to the domestic demand for goods and services in SSA.

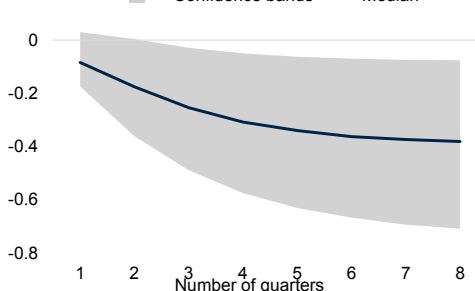
<sup>10</sup>To illustrate the possible short- and medium-term effects that a slowdown in China could have, a structural vector autoregression model was estimated for South Africa with data from 2000Q2–2014Q2. The key variables are the rest of world's gross domestic product (GDP) growth, global interest rates (proxied by the U.S. federal funds rate), China's GDP growth, South Africa's GDP growth. All variables are seasonally adjusted and transformed into log differences (quarter-on-quarter). The identification is based on a Cholesky decomposition with the variables ordered as listed, which is based on the presumed exogeneity or predetermination of variables. For instance, global GDP and global interest rates are presumably more exogenous than China's GDP in the vector autoregression system, and hence ordered before China's GDP. A 1 percentage point reduction in China's growth results in a 0.37 percentage point decline in output growth in South Africa at the end of a horizon of two years (figure B2.1.13), consistent with estimates in other studies (Houssa, Mohimont, and Otrok 2015).

<sup>11</sup>In May 2014, China signed a deal to build a US\$3.8 billion rail link between Mombasa and Nairobi in Kenya, the first phase of a line that will eventually link Burundi, Rwanda, South Sudan, and Uganda. Under the deal, the Exim Bank of China will provide 90 percent of the cost to replace the decades-old British colonial-era line with a 609.3 kilometer (379 mile) standard-gauge link, while Kenya will fund the balance of 10 percent. [http://news.xinhuanet.com/english/china/2015-02/24/c\\_134014338.htm](http://news.xinhuanet.com/english/china/2015-02/24/c_134014338.htm).

**FIGURE B2.1.13** Effect of slower growth in China on South Africa

*Slower growth in China could dampen growth in Africa.*

Percentage point impact on GDP growth from a 1 percentage point reduction in Chinese GDP growth



Source: World Bank.

Note: Results from a structural vector autoregression model with the following variables: South Africa's GDP, China's GDP, rest of the world's GDP, and global interest rates (proxied by the U.S. federal funds rate).

### How can the region increase the gains from its growing partnership with emerging markets?

China's increasing presence in SSA has supported growth—somewhat similar to the impact of Japan's growing presence on East Asia in the 1960s. China's engagement has filled important infrastructure gaps and encouraged supply chain integration.

China is only one of several major emerging economies with an interest in SSA, the others being Brazil, India,<sup>12</sup> the Republic of Korea, the Russian Federation, and Turkey. And traditional OECD partners remain important—the magnitude of their aid, investment, and trade flows is (in aggregate) larger than that from China.

But to benefit fully from the opportunities presented by trading partners (including China), countries in SSA need to focus on improving domestic policies to reform institutions, increase transparency (especially in mining), improve business environments (the cost of corruption is heavy; World Bank 2015), and promote

<sup>12</sup>With \$52 billion in announced projects, greenfield investment in Africa by India actually surpassed the \$45 billion by China during 2003–12. It covered a wider range of sectors, including agro-processing, energy (including renewables), consumer goods, and financial services (OECD 2013). Greenfield FDI is where a parent company constructs new operational facilities. In addition to the boost from the investment itself, the hiring of staff to run these facilities creates new long-term jobs.

**BOX 2.1 (continued)**

the development of human capital. Closer economic cooperation among African countries—for instance, harmonizing laws and facilitating cross-border business and collaboration—could allow Africa to leverage the benefits of commerce with the major emerging market economies (OECD 2013; Jacoby 2007). This would also help lower the costs of bureaucracy and improve competitiveness. Improvements in regional infrastructure would encourage investment (domestic and foreign). Since natural resource wealth will remain

important for the region's growth prospects, better integration of the mineral sector into development and macroeconomic policy would help shield resource-exporting countries from volatility in commodity prices and assist with more sustainable, longer-term socioeconomic development (UNECA 2011). A higher degree of processing of agricultural and raw materials would take better advantage of preferential access to Chinese, U.S., and European Union markets and would mean more exports and jobs.

**TABLE 2.11 Sub-Saharan Africa forecast summary***(Annual percent change unless indicated otherwise)*

	00–10 <sup>a</sup>	2011	2012	2013	2014e	2015f	2016f	2017f
<b>GDP at market prices<sup>b</sup></b>	5.7	4.3	4.1	4.2	4.6	4.2	4.6	5.0
(Average including countries with full national accounts and balance of payments data only) <sup>c</sup>								
<b>GDP at market prices<sup>c</sup></b>	5.7	4.3	4.1	4.2	4.6	4.2	4.6	5.0
GDP per capita (units in US\$)	3.1	1.7	1.6	2.4	2.1	1.7	2.1	2.5
PPP GDP <sup>c</sup>	5.8	4.4	4.2	5.0	4.9	4.4	4.8	5.2
Private consumption <sup>d</sup>	5.8	3.3	2.4	12.2	4.2	4.0	4.2	4.5
Public consumption	7.3	7.9	5.7	3.6	3.9	3.6	3.7	3.8
Fixed investment	9.8	2.0	9.2	5.6	6.7	6.7	7.3	7.8
Exports, GNFS <sup>e</sup>	4.8	10.2	1.0	-7.3	3.4	2.8	3.1	3.3
Imports, GNFS <sup>e</sup>	8.4	8.0	1.3	6.4	2.7	3.0	3.1	3.2
<b>Net exports, contribution to growth</b>	-0.7	0.7	-0.1	-4.3	0.1	-0.1	-0.1	0.0
<b>Consumer prices (annual average)</b>	8.4	10.1	11.1	8.1	9.0	...	...	...
<b>Fiscal balance (percent of GDP)</b>	-0.6	-1.1	-1.7	-2.9	-2.4	-2.2	-2.2	-2.1
<b>Memo items: GDP</b>								
SSA excluding South Africa	6.7	4.6	4.7	6.0	5.7	5.0	5.4	5.8
Broader geographic region (incl. recently high income countries) <sup>f</sup>	5.7	4.3	4.1	4.8	4.5	4.1	4.5	5.0
Oil exporters <sup>g</sup>	7.6	3.5	3.9	6.0	5.8	4.6	5.0	5.6
CFA countries <sup>h</sup>	4.2	2.3	6.0	4.5	5.4	3.8	5.5	6.0
South Africa	3.5	3.6	2.5	1.9	1.5	2.0	2.1	2.4
Nigeria	8.8	4.9	4.3	5.4	6.2	4.5	5.0	5.5
Angola	11.3	3.9	8.4	6.8	4.4	4.5	3.9	5.1

Source: World Bank.

World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not differ at any given moment in time.

a. Growth rates over intervals are compound weighted averages; average growth contributions, ratios and deflators are calculated as simple averages of the annual weighted averages for the region.

b. GDP at market prices and expenditure components are measured in constant 2010 U.S. dollars.

c. Sub-region aggregate excludes Liberia, Somalia, Central African Republic, São Tomé and Príncipe, and South Sudan. Data limitations prevent the forecasting of GDP components or Balance of Payments details for these countries.

d. The sudden surge in Private Consumption in the region in 2013 is driven by the revised and rebased NIA data of Nigeria in 2014.

e. Exports and imports of goods and non-factor services (GNFS).

f. Recently high-income countries include Equatorial Guinea.

g. Oil Exporters: Angola, Côte d'Ivoire, Cameroon, Congo, Rep., Gabon, Nigeria, Sudan, Chad, Congo, Dem. Rep.

h. CFA Countries: Benin, Burkina Faso, Central African Republic, Côte d'Ivoire, Cameroon, Congo, Rep., Gabon, Guinea Bissau, Equatorial Guinea, Mali, Niger, Senegal, Chad, Togo.



**TABLE 2.12 Sub-Saharan Africa country forecasts***(Real GDP growth at market prices in percent, unless indicated otherwise)*

	00–10 <sup>a</sup>	2011	2012	2013	2014e	2015f	2016f	2017f
Angola	11.3	3.9	8.4	6.8	4.4	4.5	3.9	5.1
Benin	3.9	3.3	5.4	5.6	5.5	4.6	4.6	4.7
Botswana	4.2	5.2	5.0	5.4	4.7	4.3	4.2	4.2
Burkina Faso	6.0	4.2	9.5	6.5	4.5	5.0	6.2	6.5
Burundi	3.3	4.2	4.0	4.6	4.7	4.8	5.0	5.2
Cabo Verde	5.7	4.0	1.2	0.5	1.3	3.0	3.4	3.5
Cameroon	3.3	4.1	4.6	5.6	5.0	4.0	4.6	5.0
Chad	10.7	0.1	8.9	4.0	7.3	9.0	4.7	5.6
Comoros	2.9	2.6	3.0	3.5	3.2	3.4	3.7	3.8
Congo, Dem. Rep.	4.7	6.9	7.1	8.5	9.0	8.0	8.5	9.0
Côte d'Ivoire	1.1	-4.4	10.7	8.7	8.0	8.0	7.7	7.5
Eritrea	0.9	8.7	7.0	1.3	2.0	1.5	2.0	2.2
Ethiopia	8.6	11.2	8.6	10.5	10.3	9.5	10.5	8.5
Gabon	2.0	7.1	5.6	5.9	5.0	4.0	5.2	5.5
Gambia, The	4.6	-4.3	5.9	4.8	-0.2	3.0	5.1	6.1
Ghana	5.8	14.0	9.3	7.3	4.2	3.5	5.9	7.8
Guinea	2.6	3.9	3.9	2.3	0.4	-0.3	2.3	2.5
Guinea-Bissau	2.5	9.0	-2.2	0.3	2.5	4.2	3.9	4.0
Kenya	4.4	6.1	4.5	5.7	5.3	6.0	6.6	6.5
Lesotho	4.0	2.8	6.5	5.5	2.0	4.0	4.5	4.5
Madagascar	2.6	1.5	3.0	2.4	3.0	4.6	4.8	5.0
Malawi	4.5	4.3	1.9	5.0	5.7	5.1	5.6	5.9
Mali	5.7	2.7	0.0	1.7	6.8	5.6	5.1	5.2
Mauritania	3.9	4.0	7.0	6.7	6.4	5.5	5.7	5.6
Mauritius	3.8	3.9	3.3	3.3	3.2	3.5	3.7	3.7
Mozambique	7.7	7.4	7.1	7.4	7.4	7.2	7.3	7.3
Namibia	4.7	5.1	5.2	5.1	5.3	5.5	5.3	5.1
Niger	4.6	2.3	11.0	4.1	6.2	4.5	5.5	7.7
Nigeria	8.8	4.9	4.3	5.4	6.2	4.5	5.0	5.5
Rwanda	7.9	7.9	8.8	4.7	7.0	7.0	7.0	7.5
Senegal	4.1	2.1	3.5	2.8	4.5	4.8	5.0	5.2
Sierra Leone	8.9	6.0	15.2	20.1	6.0	-12.8	8.4	8.9
South Africa	3.5	3.6	2.5	1.9	1.5	2.0	2.1	2.4
Sudan	5.8	-3.3	-10.1	-6.1	3.0	2.6	3.5	3.9
Swaziland	2.3	-0.7	1.9	2.8	1.7	2.0	1.8	1.6
Tanzania	7.0	6.4	6.9	7.0	7.2	7.2	7.1	7.1
Togo	2.0	4.9	5.9	5.1	5.5	5.1	4.9	4.7
Uganda	7.8	4.7	3.6	4.8	5.2	5.5	5.7	5.8
Zambia	7.4	6.4	6.8	6.7	5.6	5.6	6.2	6.9
Zimbabwe	-4.7	11.9	10.6	4.5	3.2	1.0	2.5	3.5
	00–10 <sup>a</sup>	2011	2012	2013	2014e	2015f	2016f	2017f
<b>Recently transitioned to high-income countries<sup>b</sup></b>								
Equatorial Guinea	14.7	5.0	3.2	-4.8	-3.1	-15.4	3.6	3.7

Source: World Bank.

World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not significantly differ at any given moment in time.

a. GDP growth rates over intervals are compound average; current account balance shares are simple averages over the period.

b. The recently high-income countries are based on World Bank's reclassification from 2004 to 2014.

## References

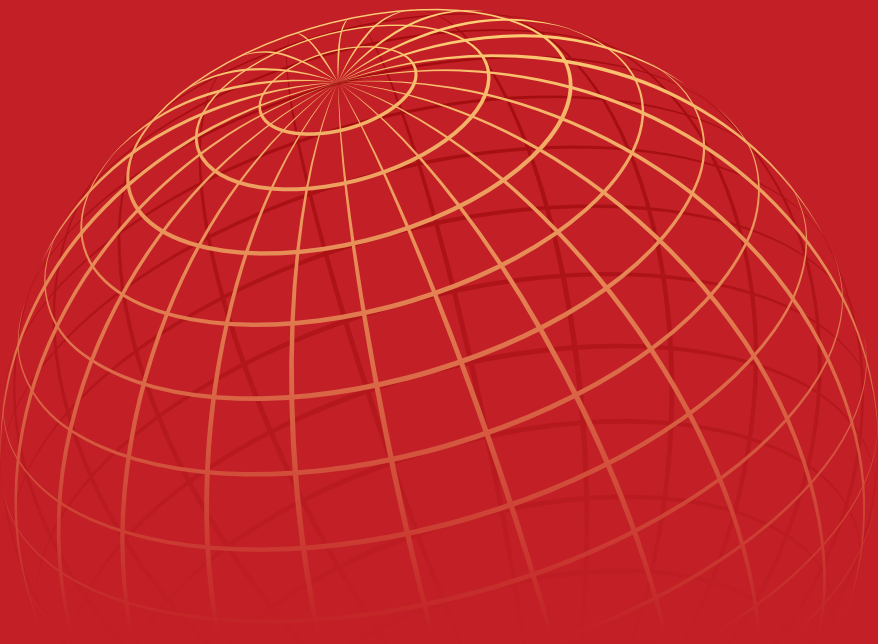
- Aastveit, K. A., G. J. Natvik, and S. Sola. October 19, 2013. "Economic Uncertainty and the Effectiveness of Monetary Policy." CEPR Vox Policy Portal. <http://www.voxeu.org/article/economic-uncertainty-and-effectiveness-monetary-policy>.
- Abdih, Y., and C. Geginat. 2014. "The Economic Impact of the Syrian Conflict on Jordan." *Economic Window* (blog). IMF blog. <http://www.imf.org/external/np/blog/nafida/093014.pdf>.
- Ademola, O., Bankole A. S., and A. O. Adewuyi. 2009. "China-Africa Trade Relations: Insight from AERC Scoping Studies." *European Journal of Development Research* 21 (4): 485–505.
- Ahuja, A., and M. Nabar. 2012. "Investment-Led Growth in China: Global Spillovers." Working Paper No. 12/267. International Monetary Fund, Washington, DC.
- Baffes, J., M. A. Kose, F. Ohnsorge, and M. Stocker. 2015. "The Great Plunge in Oil Prices: Causes, Consequences, and Policy Responses." Policy Research Note No 1. World Bank Group, Washington, DC.
- BBVA Research. 2014. "Mexico Economic Outlook." Third Quarter. [https://www.bbvaresearch.com/wp-content/uploads/2014/09/MEO\\_3Q14\\_Rec3.pdf](https://www.bbvaresearch.com/wp-content/uploads/2014/09/MEO_3Q14_Rec3.pdf).
- Bräutigam, D. 2009. *The Dragon's Gift: The Real Story of China in Africa*. Oxford, U.K.: Oxford University Press.
- Bräutigam, D. 2011a. "Aid 'With Chinese Characteristics': Chinese Foreign Aid and Development Finance Meet the OECD-DAC Aid Regime." *Journal of International Development* 23 (5): 752–64.
- Bräutigam, D. 2011b. "Chinese Development Aid in Africa: What, Where, Why and How Much?" In *China Update 2011*, ed. Jane Golley and Ligang Song, 203–22. Canberra: Australia National University.
- Burger, M. J., E. I. Ianchovina, and B. Rijkers. 2015. "Risky Business: Political Instability and Sectoral Greenfield Foreign Direct Investment in the Arab World." *World Bank Economic Review*.
- Busse, M., C. Erdogan, and H. Muehlen. 2014. "China's Impact on Africa—The Role of Trade, FDI and Aid." IEE Working Papers 206. Institut fuer Entwicklungsforschung und Entwicklungspolitik, Ruhr-Universitaet Bochum.
- Busso, M., L. Madrigal, and C. Pagés. 2012. "Productivity and Resource Misallocation in Latin America." IDB Working Paper No. 306. Inter-American Development Bank, Washington, DC.
- Chun, Z. 2013. "The Sino-Africa Relationship: Toward a New Strategic Partnership." LSE Ideas. Special Report SR016. London School of Economics, London.
- Devarajan, S., and L. Mottaghi. 2015. "MENA Economic Monitor: Towards a New Social Contract." Middle East and North Africa (MENA) Economic Monitor. World Bank, Washington, DC.
- Ding, D., and I. Masha. 2012. "India's growth spillovers to South Asia." IMF Working Paper No. 12/56. International Monetary Fund, Washington, DC.
- Drummond, P., and E. X. Liu. 2013. "Africa's Rising Exposure to China: How Large Are Spillovers through Trade?" IMF Working Paper No. 13/250. International Monetary Fund, Washington, DC.
- Economic Commission for Latin America and the Caribbean (ECLAC). 2012. "Foreign Direct Investment in Latin America and the Caribbean, 2011."
- Economist Intelligence Unit (EIU). February 6, 2015. "Latin America/Caribbean Economy: Regional Bond Issuance Reaches New Record in 2014." ViewsWire.
- Engel, E., R. Fischer, and A. Galetovic. 2013. "The Economics of Public-Private Partnerships: A User's Guide." Cambridge University Press.
- Fijałkowska, L. 2011. "China's 'Soft Power' in Africa." *Journal of Contemporary African Studies* 29 (2): 223–32.
- Foster, V., and C. Briceno-Garmendia. 2010. "Africa's Infrastructure: A Time for Transformation." World Bank Africa Infrastructure Country Diagnostic, World Bank, Washington, DC.
- Fukase, E., and W. J. Martin. 2015. "Economic Implications of a Potential Free Trade Agreement Between India and the United States." Policy Research Working Paper No. WPS 7212. World Bank, Washington, DC.

- GAO. 2013. "Sub-Saharan Africa: Trends in U.S. and Chinese Engagement." US Government Accountability Office Report to Congressional Requestors. GAO-13-199.
- Government of China. 2011. White Paper on China's Foreign Aid. Information Office of the State Council, the People's Republic of China. [http://news.xinhuanet.com/english2010/china/2011-04/21/c\\_13839683.htm](http://news.xinhuanet.com/english2010/china/2011-04/21/c_13839683.htm).
- \_\_\_\_\_. 2013. Paper on China-Africa Economic and Trade Cooperation. <http://www.scio.gov.cn/zxbd/wz/Document/1344818/1344818.htm>.
- \_\_\_\_\_. 2014. White Paper on China's Foreign Aid. Information Office of the State Council, The People's Republic of China. [http://news.xinhuanet.com/english/china/2014-07/10/c\\_133474011.htm](http://news.xinhuanet.com/english/china/2014-07/10/c_133474011.htm).
- Gu, J. 2009. "China's Private Enterprises in Africa and the Implications for African Development." *European Journal of Development Research* 21 (4): 570–78.
- Guillemont-Jeanneney, S., and P. Hua. 2015. "China's African Financial Engagement, Real Exchange Rates and Trade between China and Africa." *Journal of African Economies* 24 (1): 1–25.
- Hanauer, L., and L. J. Morris. 2014. "Chinese Engagement in Africa Drivers, Reactions, and Implications for U.S. Policy." RAND Report.
- Housa, R., J. Mohimont, and C. Otrok. 2015. "The Sources of Business Cycles in a Low Income Country." IMF Working Paper 15/40. International Monetary Fund, Washington, DC.
- Ianchovichina, E. I., and M. Ivanic. 2014. "Economic Effects of the Syrian War and the Spread of the Islamic State on the Levant." Policy Research Paper No. 7135. World Bank, Washington, DC.
- ICMM. 2012. "Trends in the Mining and Metals Industry" InBrief Publication.
- IMF. 2010. "2010 Syria: Article IV Discussion—Staff Report." Country Report No. 10/86. International Monetary Fund, Washington, DC.
- \_\_\_\_\_. 2013a. "2013 Libya: Article IV Discussion—Staff Report." Country Report No. 13/150. International Monetary Fund, Washington, DC.
- \_\_\_\_\_. 2013b. "2013 Iraq: Article IV Discussion—Staff Report." Country Report No. 13/217. International Monetary Fund, Washington, DC.
- \_\_\_\_\_. 2014a. *Regional Economic Outlook Asia and Pacific*. April 2014. Washington, DC: International Monetary Fund.
- \_\_\_\_\_. 2014b. "Multilateral Policy Issues Report: 2014 Spillover Report." International Monetary Fund, Washington, DC.
- \_\_\_\_\_. 2014c. "2014 Yemen: Article IV Discussion—Staff Report." Country Report No. 14/276. International Monetary Fund, Washington, DC.
- \_\_\_\_\_. 2014d. "2014 Algeria: Article IV Discussion—Staff Report." Country Report No. 14/473. International Monetary Fund, Washington, DC.
- \_\_\_\_\_. 2014e. *Regional Africa Outlook: Sub-Saharan Africa—Fostering Durable and Inclusive Growth*. Washington, DC: International Monetary Fund.
- \_\_\_\_\_. 2015a. *World Economic Outlook* (April 2015.) Washington, DC: International Monetary Fund.
- \_\_\_\_\_. 2015b. "Ukraine: Request for Extended Arrangement Under the Executed Fund Facility and Cancellation of Stand-By Arrangement—Staff Report." March 2015. International Monetary Fund, Washington, DC.
- \_\_\_\_\_. 2015c. *Regional Economic Outlook Update: Middle East and Central Asia*. January 2015. International Monetary Fund, Washington, DC.
- \_\_\_\_\_. 2015d. *Global Financial Stability Report* (April 2015.) Washington, DC: International Monetary Fund.
- \_\_\_\_\_. April 2007. "Decoupling the Train? Spillovers and Cycles in the Global Economy." Chapter 4 in *World Economic Outlook*. Washington, DC: International Monetary Fund.
- Inter-American Development Bank. 2013. *Rethinking Reforms: How Latin America and the Caribbean Can Escape Suppressed World Growth*. IADB, Washington, DC.
- \_\_\_\_\_. March 2015. "The Labyrinth: How Can Latin America and the Caribbean Navigate the Global Economy." 2015 Latin American and Caribbean Macroeconomic Report.
- Lam, R. W. and P. Wingender. 2015. "China: How Can Revenue Reforms Contribute to Inclusive and Sustainable Growth?" Working Paper No 15/66. International Monetary Fund. Washington, D.C.

- Lindner, P., and S. E. Jung. 2014. "Corporate Vulnerabilities in India and Banks' Loan Performance." Working Paper No. 14/232. International Monetary Fund, Washington, DC.
- McKinsey, 2015. "Debt and (Not Much) Deleveraging." McKinsey Global Institute. February 2015.
- McMillan, M., and K. Harttgen. 2014. "What is Driving the 'African Growth Miracle?'" NBER Working Paper 20077, National Bureau of Economic Research, Cambridge, MA.
- Miner, S. 2015. "Real Value of China's FX Reserves in Essentially Flat." April 2015. Peterson Institute for International Economics.
- OECD. 2013. "New Challengers for China: Africa's Emerging Partnerships." OECD Observer 296 (Q3). Organisation for Economic Co-operation and Development, Paris.
- \_\_\_\_\_. 2015. "OECD Economic Surveys: China." (March 2015.) Organisation for Economic Co-operation and Development, Paris.
- Renard, M.-F. 2011. "China's Trade and FDI in Africa." Working Paper No 126. African Development Bank, Abidjan, Côte d'Ivoire.
- Rennhack, Robert, and Fabián Valencia. February 2015. "Fiscal Impact of Lower Oil Prices on Latin America and the Caribbean." *IMFdirect*. <http://blog-imfdirect.imf.org/2015/02/26/fiscal-impact-of-lower-oil-prices-on-latin-america-and-the-caribbean>.
- Roache, Shaun K. 2008. "Central America's Regional Trends and U.S. Cycles." IMF Working Paper 08/50. International Monetary Fund, Washington, DC.
- Rodrik, D. 2014. "An African Growth Miracle." NBER Working Paper 20188, National Bureau of Economic Research, Cambridge, MA.
- Rutkowski, R. 2015. "Services Sector Reform in China." Policy Brief. Peterson Institute for International Economics. <http://www.piie.com/publications/pb/pb15-2.pdf>.
- Strange, A., B. Parks, M. J. Tierney, A. Fuchs, A. Dreher, and R. Vijaya. 2013. "China's Development Finance to Africa: A Media-Based Approach to Data Collection." Working Paper No. 323. Center for Global Development, Washington, DC.
- Sun, Y. 2014. "Africa in China's Foreign Policy." Working Paper, Brookings Institution, Washington, DC.
- UNCTAD. 2013. "World Investment Report: Global Value Chains: Investment and Trade for Development." UNCTAD/WIR/2013. United Nations Conference on Trade and Development, Geneva.
- UNECA. 2011. "Minerals and Africa's Development." Economic Commission for Africa Report. United Nations Economic Commission for Africa, Addis Ababa.
- Whalley, J., and A. Weisbrod. 2012. "The Contribution of Chinese FDI to Africa's Pre Crisis Growth Surge." *Global Economy Journal* 12 (4): 1–28.
- Witte, C. K., M. J. Burger, E. I. Ianchovina, and E. Pennings. 2015. "Dodging the Bullets: An Industry-Level Analysis of Multinational in Conflict Countries." mimeo.
- World Bank and Development Research Center of the State Council, the People's Republic of China. 2014. *Urban China: Toward Efficient, Inclusive, and Sustainable Urbanization*. Washington, DC: World Bank.
- World Bank. 2014a. "China Economic Update, June 2014." World Bank, Washington, DC.
- \_\_\_\_\_. 2014b. *Global Economic Prospects: Shifting Priorities, Building for the Future* (June 2014.) Washington, DC: World Bank.
- \_\_\_\_\_. 2014c. "Lebanon Economic Monitor, Fall 2014: Downside Risks Materialize." World Bank, Washington, DC.
- \_\_\_\_\_. 2015a. "Philippines Economic Update: Making Growth Work for the Poor." January 2015. Washington, DC: World Bank.
- \_\_\_\_\_. 2015b. "East Asia and Pacific Economic Update: Adjusting to a Changing World." April 2015. Washington, DC: World Bank.
- \_\_\_\_\_. 2015c. "Indonesia Economic Quarterly." March 2015. World Bank, Washington, DC.
- \_\_\_\_\_. 2015d. "Malaysia Economic Monitor." December 2014. World Bank, Washington, DC.
- \_\_\_\_\_. 2015e. *Doing Business 2015*. Washington, DC: World Bank.

- \_\_\_\_\_. 2015f. "Russia Economic Report: The Dawn of a New Economic Era?" (April 2015.) Washington, DC: World Bank.
- \_\_\_\_\_. 2015g. "Kazakhstan Economic Update: Low Oil Prices; an Opportunity to Reform." (Spring 2015.) World Bank, Washington, DC.
- \_\_\_\_\_. 2015h. "Turkey Economic Update." (April 2015.) World Bank, Washington, DC.
- \_\_\_\_\_. 2015i. "Europe and Central Asia Regional Brief." (April 2015.) World Bank, Washington, DC.
- \_\_\_\_\_. 2015j. "Commodity Markets Outlook." (April 2015.) World Bank, Washington, DC.
- \_\_\_\_\_. 2015k. *Global Economic Prospects: Having Fiscal Space and Using It.* (January 2015.) Washington, DC: World Bank.
- \_\_\_\_\_. 2015l. "Latin America Treads a Narrow Path to Growth: The Slowdown and its Macroeconomic Challenges." World Bank, Washington, DC.
- \_\_\_\_\_. 2015m. "South Asia Economic Focus, Spring 2015: Making the Most of Cheap Oil." World Bank, Washington, DC.
- \_\_\_\_\_. 2015n. "Africa's Pulse April 2015." World Bank, Washington, DC.
- World Economic Forum. 2014. *The Global Competitiveness Report 2014-2015.*





# STATISTICAL APPENDIX

Additional statistical data can be found online at  
[www.worldbank.org/gep](http://www.worldbank.org/gep)

TABLE A.1 GDP growth

Constant 2010 US Dollars	Annual estimates and forecasts <sup>a</sup>								Quarterly growth <sup>b</sup>						
	00-10 <sup>c</sup>	2011	2012	2013	2014e	2015f	2016f	2017f	2013	2014				2015	
									Q3	Q4	Q1	Q2	Q3	Q4	Q1
<b>World</b>	2.8	3.1	2.4	2.5	2.6	2.8	3.3	3.2	3.6	2.7	1.9	2.1	3.5	2.5	1.8
High-Income Countries	1.8	1.9	1.4	1.4	1.8	2.0	2.4	2.2	2.7	2.0	0.8	1.4	2.3	1.8	1.3
Euro Area	1.1	1.7	-0.7	-0.4	0.9	1.5	1.8	1.6	0.7	1.0	0.9	0.4	0.7	1.3	1.7
OECD Countries (All)	1.6	1.8	1.3	1.3	1.7	2.3	2.5	2.2	2.7	1.9	0.9	1.4	2.3	1.9	1.3
Non-OECD Countries (High-income only)	4.7	5.2	3.8	2.6	2.2	0.9	2.4	3.2	2.7	3.4	1.1	1.1	2.0	1.1	..
<b>Developing Countries</b>	6.1	6.1	4.9	5.1	4.6	4.4	5.2	5.4	5.9	4.4	4.6	3.9	6.7	4.0	..
<b>East Asia and the Pacific</b>	9.0	8.3	7.4	7.1	6.9	6.7	6.7	6.6	9.0	6.5	6.0	6.2	8.7	6.6	4.8
Cambodia	8.0	7.1	7.3	7.4	7.0	6.9	6.9	6.8	..	..	..	..	..	..	..
China	10.5	9.3	7.7	7.7	7.4	7.1	7.0	6.9	9.9	6.9	6.6	6.4	9.8	6.7	5.3
Fiji	1.6	2.7	1.7	4.6	3.8	2.5	2.4	2.6	..	..	..	..	..	..	..
Indonesia	5.3	6.2	6.0	5.6	5.0	4.7	5.5	5.5	5.1	5.5	4.4	5.0	4.9	5.7	3.3
Lao PDR	7.1	8.0	8.0	8.5	7.5	6.4	7.0	7.0	..	..	..	..	..	..	..
Malaysia	4.4	5.3	5.5	4.7	6.0	4.7	5.0	5.1	6.8	6.9	5.5	6.7	3.3	7.3	4.7
Mongolia	6.5	17.5	12.4	11.6	7.8	4.4	4.2	3.9	10.2	7.0	-6.9	4.9	..	..	..
Myanmar	10.3	5.9	7.3	8.3	8.5	8.5	8.2	8.0	..	..	..	..	..	..	..
Papua New Guinea	3.5	10.7	8.1	5.5	7.5	16.0	5.0	2.4	..	..	..	..	..	..	..
Philippines	4.8	3.7	6.8	7.2	6.1	6.5	6.5	6.3	4.3	5.3	7.0	10.2	0.0	9.5	1.4
Solomon Islands	2.9	10.7	4.9	3.0	0.1	3.5	3.5	3.5	..	..	..	..	..	..	..
Thailand	4.5	0.8	7.3	2.8	0.9	3.5	4.0	4.0	3.8	0.8	-3.0	1.7	4.8	4.6	1.4
Timor-Leste	4.3	14.7	7.8	5.4	6.6	6.8	6.9	7.0	..	..	..	..	..	..	..
Vietnam	6.8	6.2	5.2	5.5	6.0	6.0	6.2	6.5	..	..	..	..	..	..	..
<b>Europe and Central Asia</b>	4.6	6.1	1.9	3.7	2.4	1.8	3.4	3.6	2.3	4.2	3.2	-2.3	1.7	0.2	..
Albania	5.2	2.5	1.6	1.4	1.9	3.0	3.5	3.5	-9.6	10.8	1.6	0.2	3.3	4.5	..
Armenia	7.9	4.7	7.2	3.5	3.4	0.8	2.7	3.0	..	..	..	..	..	..	..
Azerbaijan	14.9	0.1	2.2	5.8	2.8	1.5	2.6	2.7	..	..	..	..	..	..	..
Belarus	7.4	5.5	1.7	1.0	1.6	-3.5	-1.0	1.0	1.7	-4.8	13.9	-3.5	3.9	-6.0	-3.5
Bosnia and Herzegovina	4.0	1.0	-1.1	2.5	0.4	2.0	2.3	2.9	..	..	..	..	..	..	..
Bulgaria	4.0	2.0	0.5	1.1	1.7	1.1	2.0	2.7	2.7	2.6	0.5	1.2	1.8	1.6	..
Georgia	6.2	7.2	6.2	3.3	4.8	2.0	3.0	5.0	3.4	16.8	2.9	-3.0	4.8	2.2	..
Hungary	2.1	1.8	-1.5	1.5	3.6	2.4	2.5	2.7	4.5	4.1	3.2	4.1	2.4	3.6	2.4
Kazakhstan	8.3	7.5	5.0	6.0	4.3	1.7	2.9	4.1	10.1	5.2	..	..	..	..	..
Kosovo	6.1	4.4	2.8	3.4	2.5	3.0	3.5	3.7	..	..	..	..	..	..	..
Kyrgyz Republic	4.1	6.0	-0.1	10.9	3.6	1.7	3.2	4.0	..	..	..	..	..	..	..
Macedonia, FYR	1.6	2.3	-0.5	2.7	3.5	3.5	3.8	4.0	..	..	..	..	..	..	..
Moldova	5.1	6.8	-0.7	9.4	4.6	-2.0	1.5	4.0	..	..	..	..	..	..	..
Montenegro	3.6	3.2	-2.5	3.3	1.5	3.4	2.9	2.9	..	..	..	..	..	..	..
Romania	4.1	1.1	0.6	3.5	2.9	3.0	3.2	3.5	4.1	4.4	1.3	-2.5	8.8	3.0	..
Serbia	3.6	1.4	-1.0	2.6	-1.8	-0.5	1.5	2.0	..	..	..	..	..	..	..
Tajikistan	8.3	7.4	7.5	7.4	6.7	3.2	4.4	5.2	..	..	..	..	..	..	..
Turkey	3.9	8.8	2.1	4.2	2.9	3.0	3.9	3.7	1.6	3.0	6.4	-1.8	2.2	2.8	..
Turkmenistan	13.6	14.7	11.1	10.2	10.3	8.0	9.0	9.0	..	..	..	..	..	..	..
Ukraine	4.3	5.5	0.2	0.0	-6.8	-7.5	2.0	3.0	-7.4	17.2	-13.6	-11.6	-11.0	-22.3	-24.5
Uzbekistan	6.9	8.3	8.2	8.0	8.1	7.6	7.8	8.0	..	..	..	..	..	..	..
<b>Latin America and the Caribbean</b>	3.3	4.7	2.9	2.7	0.9	0.4	2.0	2.8	2.3	1.1	1.9	-1.2	1.6	1.7	..
Argentina <sup>g</sup>	3.8	8.4	0.8	2.9	0.5	1.1	1.8	3.0	2.6	-1.0	-2.6	2.2	0.5	0.1	..
Belize	4.0	2.1	3.8	1.5	3.6	2.5	2.6	2.7	..	..	..	..	..	..	..
Bolivia	3.8	5.2	5.2	6.8	5.3	4.8	4.2	4.1	6.5	9.0	1.6	2.1	11.6	..	..
Brazil	3.6	3.9	1.8	2.7	0.1	-1.3	1.1	2.0	0.4	0.3	2.6	-5.4	0.6	1.3	..
Colombia	4.1	6.6	4.0	4.9	4.6	3.5	3.9	4.2	4.0	5.5	5.2	2.4	3.6	2.9	..
Costa Rica	4.4	4.5	5.2	3.4	3.5	3.4	4.2	4.4	6.0	0.8	0.8	7.4	4.5	-0.5	..
Dominica	2.6	0.2	-1.4	-0.9	1.5	1.3	1.5	1.6	..	..	..	..	..	..	..
Dominican Republic	4.9	2.9	2.6	4.8	7.3	5.2	4.8	3.4	..	..	..	..	..	..	..
Ecuador	4.1	7.8	5.2	4.6	3.8	1.9	3.0	4.2	6.4	2.7	-0.2	6.5	5.9	1.9	..
El Salvador	1.9	2.2	1.9	1.7	2.0	2.2	2.5	2.6	..	..	..	..	..	..	..
Guatemala	3.3	4.2	3.0	3.7	4.2	4.0	3.9	3.9	1.2	2.2	4.0	10.5	2.5	0.9	..
Guyana	2.4	5.4	4.8	5.2	3.6	3.7	3.8	4.0	..	..	..	..	..	..	..
Haiti	0.1	5.5	2.9	4.2	2.7	1.7	3.2	3.1	..	..	..	..	..	..	..
Honduras	4.1	3.8	4.1	2.8	3.1	2.9	3.3	3.5	..	..	..	..	..	..	..
Jamaica <sup>d</sup>	0.5	1.7	-0.6	0.6	0.4	1.5	2.2	2.5	..	..	..	..	..	..	..
Mexico	1.8	4.0	4.0	1.4	2.1	2.6	3.2	3.5	4.6	1.2	2.0	3.7	2.1	2.7	1.6
Nicaraguae	2.8	5.7	5.0	4.6	4.7	4.2	4.3	4.2	..	..	..	..	..	..	..
Panama	6.3	10.9	10.8	8.4	6.2	6.2	6.4	6.5	..	..	..	..	..	..	..
Paraguay	3.4	4.3	-1.2	14.2	4.4	4.2	4.1	4.1	3.2	0.1	13.0	-2.8	6.9	7.3	..
Peru <sup>g</sup>	5.6	6.5	6.0	5.8	2.4	3.9	5.0	5.0	5.1	6.3	-1.3	-2.3	4.7	2.8	2.2
St. Lucia	1.8	1.2	-1.6	-0.4	-1.0	-0.6	0.8	1.4	..	..	..	..	..	..	..
St. Vincent and the Grenadines	3.5	-0.5	1.2	1.7	1.5	2.6	2.9	3.4	..	..	..	..	..	..	..
Venezuela, RB	3.1	4.2	5.6	1.3	-4.0	-5.1	-1.0	1.1	..	..	..	..	..	..	..

TABLE A.1 GDP growth (continued)

Constant 2010 US Dollars	Annual estimates and forecasts <sup>a</sup>								Quarterly growth <sup>b</sup>						
	00-10 <sup>c</sup>	2011	2012	2013	2014e	2015f	2016f	2017f	2013	2014				2015	
									Q3	Q4	Q1	Q2	Q3	Q4	Q1
<b>Middle East and North Africa</b>	4.5	-0.1	1.3	0.5	2.2	2.2	3.7	3.8	1.3	3.7	5.1	4.1	6.4	1.1	..
Algeria	3.9	2.8	3.3	2.8	4.1	2.6	3.9	4.0	..	..	..	..	..	..	..
Djibouti	3.9	4.5	4.8	5.0	6.0	6.5	7.0	7.1	..	..	..	..	..	..	..
Egypt, Arab Rep. <sup>d</sup>	4.9	1.8	2.2	2.1	2.2	4.2	4.5	4.8	-0.9	5.4	4.5	6.5	10.2	-3.1	..
Iran, Islamic Rep.	5.0	3.9	-6.6	-1.9	3.7	1.0	2.0	2.0	2.2	2.2	10.6	0.4	6.2	2.7	..
Iraq	-0.4	10.2	10.3	4.2	-0.5	-1.0	5.5	5.9	..	..	..	..	..	..	..
Jordan	6.3	2.6	2.7	2.8	3.1	3.5	3.9	4.0	1.9	2.7	4.1	2.4	3.2	3.6	..
Lebanon	5.9	2.0	2.2	0.9	2.0	2.5	2.5	2.5	..	..	..	..	..	..	..
Libya	4.3	-62.1	104.5	-13.7	-24.0	0.5	15.0	10.9	..	..	..	..	..	..	..
Morocco	4.9	5.0	2.7	4.4	2.6	4.6	4.8	5.0	2.3	5.5	-10.2	13.5	2.1	3.1	..
Tunisia	4.7	-0.5	3.7	2.3	2.3	2.6	3.4	4.5	1.3	4.5	0.1	5.3	1.1	4.1	..
Yemen, Rep.	4.3	-12.7	2.4	4.8	0.3	-2.8	2.8	3.4	..	..	..	..	..	..	..
West Bank and Gaza	3.3	12.2	5.9	2.2	-0.8	0.9	4.3	4.1	..	..	..	..	..	..	..
<b>South Asia</b>	6.7	7.0	5.4	6.3	6.9	7.1	7.3	7.5	6.8	2.5	6.4	9.8	13.8	0.8	..
Afghanistan	12.8	6.1	14.4	3.7	2.0	2.5	5.0	5.1	..	..	..	..	..	..	..
Bangladesh <sup>d</sup>	6.1	6.5	6.0	6.1	5.6	6.3	6.7	6.7	..	..	..	..	..	..	..
India	7.4	6.6	5.1	6.9	7.3	7.5	7.9	8.0	6.8	2.2	6.5	9.9	14.0	0.7	..
Maldives	7.0	6.5	1.3	4.7	5.0	5.3	5.0	5.0	..	..	..	..	..	..	..
Nepal <sup>d,f</sup>	3.9	3.4	4.9	3.8	5.5	4.2	4.5	5.5	..	..	..	..	..	..	..
Pakistan <sup>g</sup>	4.2	2.7	3.5	4.4	5.4	6.0	3.7	4.5	..	..	..	..	..	..	..
Sri Lanka	5.2	8.2	6.3	7.3	7.4	6.9	6.6	6.5	8.4	10.3	4.8	7.9	7.8	4.8	..
<b>Sub-Saharan Africa</b>	5.7	4.3	4.1	4.2	4.6	4.2	4.6	5.0	3.6	5.8	1.8	4.6	4.2	5.3	-1.8
Angola	11.3	3.9	8.4	6.8	4.4	4.5	3.9	5.1	..	..	..	..	..	..	..
Benin	3.9	3.3	5.4	5.6	5.5	4.6	4.6	4.7	..	..	..	..	..	..	..
Botswana	4.2	5.2	5.0	5.4	4.7	4.3	4.2	4.2	3.6	1.7	1.8	6.4	12.7	0.4	..
Burkina Faso	6.0	4.2	9.5	6.5	4.5	5.0	6.2	6.5	..	..	..	..	..	..	..
Burundi	3.3	4.2	4.0	4.6	4.7	4.8	5.0	5.2	..	..	..	..	..	..	..
Cameroon	3.3	4.1	4.6	5.6	5.0	4.0	4.6	5.0	..	..	..	..	..	..	..
Cabo Verde	5.7	4.0	1.2	0.5	1.3	3.0	3.4	3.5	..	..	..	..	..	..	..
Chad	10.7	0.1	8.9	4.0	7.3	9.0	4.7	5.6	..	..	..	..	..	..	..
Comoros	2.9	2.6	3.0	3.5	3.2	3.4	3.7	3.8	..	..	..	..	..	..	..
Congo, Dem. Rep.	4.7	6.9	7.1	8.5	9.0	8.0	8.5	9.0	..	..	..	..	..	..	..
Côte d'Ivoire	1.1	-4.4	10.7	8.7	8.0	8.0	7.7	7.5	..	..	..	..	..	..	..
Eritrea	0.9	8.7	7.0	1.3	2.0	1.5	2.0	2.2	..	..	..	..	..	..	..
Ethiopia	8.6	11.2	8.6	10.5	10.3	9.5	10.5	8.5	..	..	..	..	..	..	..
Gabon	2.0	7.1	5.6	5.9	5.0	4.0	5.2	5.5	..	..	..	..	..	..	..
Gambia, The	4.6	-4.3	5.9	4.8	-0.2	3.0	5.1	6.1	..	..	..	..	..	..	..
Ghana	5.8	14.0	9.3	7.3	4.2	3.5	5.9	7.8	..	..	..	..	..	..	..
Guinea	2.6	3.9	3.9	2.3	0.4	-0.3	2.3	2.5	..	..	..	..	..	..	..
Guinea-Bissau	2.5	9.0	-2.2	0.3	2.5	4.2	3.9	4.0	..	..	..	..	..	..	..
Kenya	4.4	6.1	4.5	5.7	5.3	6.0	6.6	6.5	..	..	..	..	..	..	..
Lesotho	4.0	2.8	6.5	5.5	2.0	4.0	4.5	4.5	..	..	..	..	..	..	..
Madagascar	2.6	1.5	3.0	2.4	3.0	4.6	4.8	5.0	..	..	..	..	..	..	..
Malawi	4.5	4.3	1.9	5.0	5.7	5.1	5.6	5.9	..	..	..	..	..	..	..
Mali	5.7	2.7	0.0	1.7	6.8	5.6	5.1	5.2	..	..	..	..	..	..	..
Mauritania	3.9	4.0	7.0	6.7	6.4	5.5	5.7	5.6	..	..	..	..	..	..	..
Mauritius	3.8	3.9	3.3	3.3	3.2	3.5	3.7	3.7	..	..	..	..	..	..	..
Mozambique	7.7	7.4	7.1	7.4	7.4	7.2	7.3	7.3	..	..	..	..	..	..	..
Namibia	4.7	5.1	5.2	5.1	5.3	5.5	5.3	5.1	..	..	..	..	..	..	..
Niger	4.6	2.3	11.0	4.1	6.2	4.5	5.5	7.7	..	..	..	..	..	..	..
Nigeria	8.8	4.9	4.3	5.4	6.2	4.5	5.0	5.5	5.9	6.6	4.8	8.4	5.7	6.4	-4.5
Rwanda	7.9	7.9	8.8	4.7	7.0	7.0	7.0	7.5	..	..	..	..	..	..	..
Senegal	4.1	2.1	3.5	2.8	4.5	4.8	5.0	5.2	..	..	..	..	..	..	..
Sierra Leone	8.9	6.0	15.2	20.1	6.0	-12.8	8.4	8.9	..	..	..	..	..	..	..
South Africa	3.5	3.6	2.5	1.9	1.5	2.0	2.1	2.4	1.2	5.1	-1.6	0.5	2.1	4.1	1.3
Sudan	5.8	-3.3	-10.1	-6.1	3.0	2.6	3.5	3.9	..	..	..	..	..	..	..
Swaziland	2.3	-0.7	1.9	2.8	1.7	2.0	1.8	1.6	..	..	..	..	..	..	..
Tanzania	7.0	6.4	6.9	7.0	7.2	7.2	7.1	7.1	..	..	..	..	..	..	..
Togo	2.0	4.9	5.9	5.1	5.5	5.1	4.9	4.7	..	..	..	..	..	..	..
Uganda	7.8	4.7	3.6	4.8	5.2	5.5	5.7	5.8	..	..	..	..	..	..	..
Zambia	7.4	6.4	6.8	6.7	5.6	5.6	6.2	6.9	..	..	..	..	..	..	..
Zimbabwe	-4.7	11.9	10.6	4.5	3.2	1.0	2.5	3.5	..	..	..	..	..	..	..

Source: World Bank, WDI, Haver Analytics, WEO

Note: Aggregates include countries with full national accounts and balance of payment data only

a. Annual percentage change

b. Quarter-over-quarter growth, seasonally adjusted and annualized

c. Compound average of the period 2000-10

d. Annual GDP is on fiscal year basis, as per reporting practice in the country

e. Preliminary for long-term average. Data was recently rebased; missing data up to 2003 was spliced with the earlier series.

f. Nepal forecasts are preliminary.

g. GDP data for Pakistan are based on market prices.

## ECO-AUDIT

### *Environmental Benefits Statement*

The World Bank Group is committed to reducing its environmental footprint. In support of this commitment, the Publishing and Knowledge Division leverages electronic publishing options and print-on-demand technology, which is located in regional hubs worldwide. Together, these initiatives enable print runs to be lowered and shipping distances decreased, resulting in reduced paper consumption, chemical use, greenhouse gas emissions, and waste.

The Publishing and Knowledge Division follows the recommended standards for paper use set by the Green Press Initiative. The majority of our books are printed on Forest Stewardship Council (FSC)–certified paper, with nearly all containing 50–100 percent recycled content. The recycled fiber in our book paper is either unbleached or bleached using totally chlorine free (TCF), processed chlorine free (PCF), or enhanced elemental chlorine free (EECF) processes.

More information about the Bank’s environmental philosophy can be found at <http://crinfo.worldbank.org/wbcrinfo/node/4>.





**G**lobal growth is expected to be 2.8 percent in 2015, but is expected to pick up to 3.2 percent in 2016–17. Growth in developing countries and some high-income countries is set to disappoint again this year. The prospect of rising borrowing costs will compound the challenges many developing countries are facing as they adapt to an era of low commodity prices. Risks to this outlook remain tilted to the downside.

This edition of *Global Economic Prospects* includes two Special Features that analyze the policy challenges raised by the two transitions in developing countries: the risks associated with the first U.S. central bank interest rate increase since 2006 and the implications of persistently low commodity prices for low-income countries.

*Global Economic Prospects* is a World Bank Group Flagship Report that examines global economic developments and prospects, with a special focus on developing countries, on a semiannual basis (in January and June). The January edition includes in-depth analyses of topical policy challenges faced by developing countries while the June edition contains shorter analytical pieces.