

Sustainable Development Goals

How to end modern slavery

The price of water

Could you live on \$1.25 a day?



Almost a billion live on less

The **Global Push** to End **Extreme Poverty**

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FEATURES

A DEVELOPMENT AGENDA

8 Aiming High

New development goals could spur progress toward better-quality life around the world *Charles Kenny*

14 A Quest for Quality

High growth alone will not improve social conditions

Montfort Mlachila, René Tapsoba, and Sampawende Tapsoba

18 Is the Glass Half Empty or Half Full?

Getting incentives right can go a long way toward managing water challenges while protecting the poor

Kalpana Kochhar, Catherine Pattillo, and Yan Sun

22 Straight Talk: Path to Development

International partnership, commitment, and flexibility are essential to improve the global condition *Christine Lagarde*

24 Picture This: Global Goals

Governments put forward 17 goals to respond to global challenges

Natalie Ramírez-Djumena

ALSO IN THIS ISSUE

26 The Toll of Terrorism

Terrorists not only exact a direct human cost, they can cause innumerable economic problems too

Subhayu Bandyopadhyay, Todd Sandler, and Javed Younas

29 A Chain Unbroken

Outlawed almost everywhere, slavery lives on in the dark recesses of the global economy Marja Ruotanen, Gianluca Esposito, and Petya Nestorova

34 Continental Reach

African banking groups are expanding across the region, challenging traditional players and supervisors

Alexandra Born and Paul Mathieu

38 The Rich and the Great Recession

Focusing on middle-class behavior to explain the boom and bust in the United States may be too narrow Bas Bakker and Joshua Felman

41 Stymied Reform

The move to revamp over-the-counter derivatives markets is progressing, but well behind schedule *John Kiff*











FROM THE **EDITOR**

46 Capital Idea

By increasing spending on infrastructure, Germany will help not only itself, but the entire euro area

Selim Elekdag and Dirk Muir

50 Help Wanted

When a young person is jobless, it also damages family, community, and country *Hyun-Sung Khang*

55 Four Years after the Spring

Despite progress, the Arab countries in transition still must correct some fundamental weaknesses in their economies

Adnan Mazarei and Tokhir Mirzoev

DEPARTMENTS

2 In Brief

4 People in Economics

Agent Provocateur

Jeremy Clift talks to Hélène Rey, professor of economics at the London Business School



32 Currency Notes

Paperback Builders

South Africa pays tribute to the country's diversity in its latest currency design *Simon Willson*

44 Back to Basics

What Is Capitalism?

Free markets may not be perfect but they are probably the best way to organize an economy Sarwat Jahan and Ahmed Saber Mahmud

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Once in a Generation

HIS year is pivotal for global development efforts.

World leaders will come together three times—in
July, September, and December—to press for progress in the fight against poverty and to forge partnerships in support of better-quality life around the world.

In July, government officials and representatives from civil society organizations, donor groups, and the private sector will meet in Addis Ababa, Ethiopia, to secure the financing needed to lift millions out of extreme poverty.

The global community assembles again in New York in September to review progress under the Millennium Development Goals (MDGs), which expire this year, and to adopt new ones—the Sustainable Development Goals (SDGs)—that map out development through 2030.

Finally, in December, participants at the United Nations summit on climate change in Paris will work toward a set of environmental targets aimed at ensuring a sustainable future.

Efforts such as these always generate debate and sometimes skepticism. The complexity of the proposed SDGs—17 in total with 169 subtargets—has prompted some critics to question their value.

But as IMF Managing Director Christine Lagarde reminds us in this issue, the world has seen strong gains since the MDGs' adoption in 2000. This year's alignment of events, she argues, is a "once-in-a-generation opportunity" to focus minds, forge partnerships, and find solutions.

This issue of $F \not \circ D$ takes stock of the world's development agenda, examining how we can best seize this opportunity.

Charles Kenny, senior fellow at the Center for Global Development, looks at progress on the development agenda since 2000. He argues that the world needs strong deals in Addis Ababa on financing and in Paris on climate to deliver sustainable progress.

Growth is necessary to development, but not all growth is equal—its quality matters. Montfort Mlachila, René Tapsoba, and Sampawende Tapsoba tackle the task of measuring growth quality with a special index to help guide policymakers. An article about ensuring access to clean water, especially for the world's poorest, and a Picture This infographic on the transition from the MDGs to the SDGs round out the package.

Elsewhere in this issue we delve into the dark recesses of the global economy, examining the economic toll of terrorism and the costs of human trafficking.

We also look at the expansion of regional banks in Africa, the economic aftermath of the Arab Spring, how the euro area could benefit from German infrastructure spending, efforts to revamp over-the-counter derivatives markets, and youth unemployment.

Finally, IMF Publisher and former $F \not \Leftrightarrow D$ editor-in-chief Jeremy Clift profiles Hélène Rey, a professor of economics at the London Business School known for challenging accepted wisdom on big macroeconomic issues.

Jeffrey Hayden Editor-in-Chief

IN BRIEF

Reach out and bank

Over the past five years, 700 million people became account holders at banks, other financial institutions, or mobile money service providers, and the number of unbanked individuals



Mobile money transfer, Nairobi, Kenya.

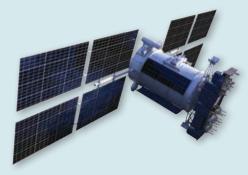
dropped 20 percent to 2 billion adults, states a 2014 report by the World Bank, Global Findex.

Between 2011 and 2014, the percentage of adults with an account increased from 51 percent to 62 percent. In particular, mobile money accounts in sub-Saharan Africa are helping to rapidly expand and scale up access to financial services.

The report found that there is still more to be done to expand

financial inclusion among women and the poorest households in developing economies. The gender gap in account ownership is not narrowing: by 2014 only 58 percent of women had an account, compared with 65 percent of men. Regionally, south Asia has the largest gender gap, at 18 percentage points.

Technology has helped to spur account usage and transform the way domestic payments are made. Some 355 million adults with an account in developing economies reported sending or receiving domestic remittances in cash or over the counter, including 35 million in sub-Saharan Africa. Moreover, 1.3 billion adults in developing economies with an account pay their trash, water, and electric bills in cash, and over half a billion adults with an account pay school fees in cash. Access to digital payments, through a mobile phone or point-of-sale terminal, offers more convenient and affordable payment options.



Going boldly

The Asian Development Bank (ADB) and Japan are helping countries in Asia and the Pacific tap into the latest technologies, including satellite maps, to prepare for—and respond more effectively and quickly to—natural disasters.

A \$2 million technical assistance grant from Japan will be used by the ADB to train government and community officials and local volunteers in Armenia, Bangladesh, Fiji, and the Philippines to use state-of-the-art space-based technology and other high-tech tools for disaster planning. These four countries will act as pilots for the potential wider adoption of these technologies across the region.

The use of space-based technology, including satellite-based systems such as the Global Positioning System (GPS), for disaster planning and response has been growing in recent years. But many developing economies lack the funds and expertise to adopt new technologies that can supplement their existing early-warning and disastermonitoring systems.

The technical assistance project will train government agencies and local communities in the target countries to use OpenStreetMap, a free, worldwide digital mapping platform, and mobile phone applications to allow each country to collect community-based information for risk planning.

Pension plans

In the absence of pension reforms, the growing middle class in Latin America may be vulnerable to poverty in old age, according to a recent study published jointly by the Inter-American Development Bank, Organisation for Economic Co-operation and Development (OECD), and World Bank. The study looked at pension models in 26 countries in the region.

Population aging will lead to higher government spending on pensions in Latin America and the Caribbean; at the same time, the large number of workers in the informal sector—who do not make contributions—puts the adequacy of pension benefits at risk. Currently, only 45 of every 100 workers contribute to a retirement plan, a ratio that has changed little in recent decades. By 2050, between 63 million and 83 million people in the region will be at risk of receiving an inadequate pension, unless pension systems are reformed and efforts are made to increase formal sector employment and access to quality education.

The most widespread practice to bridge the gap in pension coverage is expanding so-called noncontributory pensions. These government subsidies help reduce inequality and poverty, but will pose a fiscal challenge as the population ages and the number of beneficiaries increases. Today there are 8 people

of working age in the region for every retiree, but by 2050 the rate will drop to 2.5, close to the OECD average of 1.9.

Many countries in the region still lack systems and institutional capacity for sound management of pensions, both contributory and noncontributory. That means larger investments in systems and reforms of institutional frameworks are important steps toward achieving greater pension coverage and sustainability.



Domino players, Santo Amaro, Brazil.

Needle point

A 2014 study by the World Health Organization (WHO) found that the use of the same syringe or needle to give injections to more than one person is driving the spread of a number of deadly infectious diseases worldwide.

The study found that in 2010, some 1.7 million people were infected with the hepatitis B virus, about 315,000 with hepatitis C, and as many as 33,800 with HIV as a result of an unsafe injection.

The WHO is recommending the use of a new "smart" syringe with features that prevent reuse. One model includes a weak spot in the plunger that causes it to break if the user attempts to pull back on the plunger after an injection. Another has a metal clip that blocks the plunger so it cannot be moved back, and in a third model, the needle retracts into the syringe barrel once the injection is administered. A syringe with a sheath or hood that slides over the needle after the injection is completed is also being engineered with features to protect health workers from needlestick injuries and resulting infections.

The WHO is urging countries to change over to exclusive use of the smart syringe by 2020, except, for example, when



"Smart" syringe prevents reuse and infection.

repeated use of a regular syringe is needed for an intravenous pump procedure. Syringes without safety features cost 3 to 4 cents (U.S.) when procured by a UN agency for use in a developing economy. The smart syringe would cost twice as much, but the WHO anticipates that prices will decline over time as demand increases, and is calling on donors to support the transition to these devices.



Race against plastic

Race for Water Odyssey (R4WO), a Swiss expedition supported by the United Nations Environment Programme (UNEP), will cover more than 40,000 nautical miles in 2015 to make the first global assessment of plastic pollution in the oceans. In less than 300 days, the team will make 11 scientific stopovers and 9 outreach stopovers, in 13 countries, visiting island beaches situated in five "trash vortexes." These gigantic concentrations of plastic waste that has been floating in the oceans are created by wind and marine currents.

The expedition left Bordeaux, France, on March 15. After traversing the Atlantic Ocean and entering the Pacific Ocean via the Panama Canal, the Race for Water Odyssey is traveling to South America and then on to analyze trash on island beaches in the South Pacific.

"The world's oceans receive an enormous amount of litter each year, much of which is persistent and creates marine pollution that is global and intergenerational," said Achim Steiner, UN under-secretary-general and UNEP executive director. "Collaboration between governments, the private sector, civil society, and academia is key to stemming the flow of waste into this fragile environment."

The Race for Water foundation seeks to implement concrete and sustainable actions to protect oceans and freshwater and collaborates with organizations such as UNESCO, UNEP, and the World Wildlife Foundation.

Events in 2015

June 1–13, Geneva, Switzerland
International Labour Organization Conference

June 4–5, Schloss Elmau, GermanyGroup of Seven Summit

June 6–13, Rome, ItalyFood and Agriculture Organization Conference

July 13–15, Addis Ababa, EthiopiaUN Financing for Development Conference

September 25–27, New York, United StatesUN Summit to Adopt the Post-2015 Development Agenda

October 9–11, Lima, Peru Annual Meetings of the IMF and the World Bank

November 30-December 11, Paris, France United Nations Framework Convention on Climate Change



Hélène Rey on the campus of the London Business School.

Jeremy Clift
talks to Hélène
Rey, professor
of economics
at the London
Business
School

N warmer days, Hélène Rey likes to scoot across Regent's Park to her work amid the white colonnades of the London Business School. She shows off her skills down the narrow corridor outside her small, book-lined office, deftly touching the back brake of the scooter's aluminum frame with her left foot as she speeds along.

"My house is just across the park, so it's convenient," says the prize-winning economics professor. "There's wild herons, bright green parakeets, and lots of ducks. Even the occasional black swan—turns out they are not so rare," she says with a chuckle. Indeed a couple of Regent's Park black swans, which traditionally mate for life, made headlines in the global media a while ago because they had to be separated by park keepers when they squabbled too much during courting.

Best-selling author Nassim Nicholas Taleb adopted the term black swan events to describe rare happenings that have major repercussions in the business and financial sectors but were completely unpredictable or thought unlikely, as black swans are in nature.

"In reality though," says Rey, "black swans are not totally abnormal," referring to the Taleb version. "I don't think big shocks are a

very unusual thing. It depends on the system and the incentives you give to people."

Going after the big issues

Rey—who lives with her husband and eightyear-old daughter in two modernized townhouses that have been knocked together—has made a reputation by challenging accepted wisdom, particularly about the international financial system, the role of the dollar, and other big macroeconomic issues. Fellow economists call her work and ideas "provocative" and "influential."

"It's the big issues in economics that have always interested me," says Rey. She is married to economist Richard Portes—also a professor at the London Business School—who founded the Centre for Economic Policy Research, a network of European economists, in 1983. "You had to do international macro to understand this stuff," she said in an interview with $F \not\leftarrow D$ in London.

"A common thread is that she's always looking for some of the deeper forces that affect the international monetary system or the financial world that we live in," says Pierre-Olivier Gourinchas, a professor at the University of California, Berkeley, who like Rey is a French national.

"Her work is characterized by patience and commitment," says Philip Lane, a professor at

Trinity College, Dublin. "She has developed large-scale, long-running projects that ultimately deliver significant advances in knowledge, rather than being satisfied with 'quick-win' research projects."

Since getting separate doctorates in the same year from the London School of Economics and the Ecole des Hautes Etudes en Sciences Sociales in Paris in 1998, she has won a string of top European prizes in economics for her thoughtprovoking research and has become an advocate for more women at senior levels of the economics profession.

"Hélène takes big ideas and then examines the data incredibly carefully to answer these big questions," said Olivier Blanchard, the IMF's chief economist. "That's the optimal combination if you want to make a mark on the profession, and she has already made a substantial mark," he observed when introducing her at a Washington research conference last year.

String of awards

Her awards include the 2006 Bernácer Prize (best European economist working in macroeconomics and finance under the age of 40) for her research on the causes and consequences of external trade and financial imbalances, the internationalization of currencies, and improving understanding of financial crises.

In 2012 she received the inaugural Birgit Grodal Award of the European Economic Association, honoring a European-based female economist who has made a significant contribution to the economics profession. And a year later, she became the first woman to win the biannual Yrjö Jahnsson Award, sharing the prize with fellow French national Thomas Piketty, well-known author of *Capital in the Twenty-First Century*, on wealth and income inequality.

Rey won the 2013 award for her original contributions to international finance, especially the determination of exchange rates and international capital flows. The committee said she had "worked on and made significant progress in studying many of the big questions in international finance that have been preoccupying economists and policymakers."

"It's the marriage of theory and empirics that makes her work so relevant for policy analysis," comments Lane.

Despite her intense involvement in economics, Rey says she is "very normal" in what she likes to do outside her professional hours. "I love reading; I love hearing—one thing about London is that the music is so good." Whenever she can she also likes to kick a ball around with her daughter or take her swimming. "Because I was raised in the countryside, I also love to go hiking in the woods or the mountains."

Changing the discussion

Rey, the daughter of a civil engineer and a teacher, grew up in central France, in the pretty market town of Brioude. She attributes her success in economics to the strong grounding she received in mathematics in the French education system. After doing her undergraduate work at a grande école in Paris, she won a scholarship to study for a master's at Stanford University in California. "So I went into the American system a bit early," she says. Rey then returned to Europe for her doctorates. She has taught at a string of elite

universities, including Princeton University and the London School of Economics, with short spells at the University of California, Berkeley and Harvard University.

Among her most influential work is the research she did with Gourinchas when she was at Princeton on the role of the United States in a globalized financial system. Blanchard says it "changed the discussion on the current account deficit in the United States."

Before the recent global financial crisis, when economists and politicians were concerned about the ballooning U.S. current account deficit, Gourinchas and Rey showed that the U.S. position was not as bad as it looked because of the country's role as the center of the international financial system.

"Although the U.S. was running a big trade deficit, economists were not taking into account the large amounts the U.S. was earning on the financial side from capital gains and changes in the value of the dollar," Gourinchas told $F \not \Leftrightarrow D$.

"For example, almost all U.S. foreign liabilities are in dollars, whereas approximately 70 percent of U.S. foreign assets are in other currencies. So a 10 percent depreciation of the dollar increases the value of foreign assets and represents a transfer of about 5.9 percent of U.S. GDP from the rest of the world to the United States. For comparison, the trade deficit on goods and services in 2004 was 5.3 percent of GDP. So these capital gains can be very large."

As Gourinchas and Rey (2005) pointed out, a depreciation of the U.S. dollar has two beneficial effects on the external position of the United States. It helps boost net exports and increases the dollar value of U.S. assets.

Gourinchas and Rey said that the U.S. position at the center of the system gave it what they called an "exorbitant privilege" (a phrase coined in the 1960s by then-French Finance Minister Valéry Giscard d'Estaing to describe the advantage the United States derived from the dollar's role as the world's reserve currency). The exorbitant privilege, Rey and Gourinchas explained, came about because the United States could borrow at a discount on world financial markets and get high yields on its external assets. They tracked how the United States had gradually taken on riskier overseas investments.

World banker, world insurer

"Then we pushed these ideas further, by pointing out that the key role of the United States makes it also look very much like an insurer for the rest of the world," Rey explains.

In the wake of World War II, the United States succeeded Great Britain as the world's banker, issuer of the main international currency, and provider of international liquidity.

This meant, in particular, being able to borrow short (foreigners were willing to purchase liquid dollar assets) and lend long (the United States supplied long-term loans and investment funds to foreign enterprises). Just like a bank, the United States could extract an intermediation margin from the differential between the higher return it received on its external assets compared with the costs of its liabilities.

Gourinchas said Washington has become more like the world's venture capitalist since the 1990s. "During the whole period, U.S. assets have shifted more and more out of long-

term bank loans toward foreign direct investment (FDI) and, since the 1990s, toward FDI and equity. At the same time, its liabilities have remained dominated by bank loans, trade credit, and debt—that is, low-yield safe assets.

"Hence, the U.S. balance sheet resembled increasingly one of a venture capitalist with high-return risky investments on the asset side. Furthermore, its leverage ratio has increased sizably over time."

Rey says they expanded on this research during the global financial crisis, finding that the United States had reversed its role by channeling resources to the rest of the world through its external portfolio—on a large scale. "Our estimate is 13 to 14 percent of U.S. GDP in 2008 alone. So that was very significant."

The United States was providing "some sort of global insurance to the world economy and the rest of the world—earning the equivalent of an insurance premium in good times and paying out in bad times. And that's exactly what we see in the data."

"While the United States enjoys an exorbitant privilege on one side," says Rey, "it also, as global insurer, has an exorbitant duty in time of crisis on the other."

Jackson Hole

A second strand of Rey's work challenges another shibboleth of economics—the idea that countries can only achieve two of the "impossible trinity" of a fixed exchange rate; an open capital market (no capital controls); and an independent monetary policy (see box).

The theory goes that in a world of free capital flows, a country can have an independent monetary policy only by having its exchange rate float (Obstfeld and Taylor, 2004).

While both emerging markets and advanced economies have increasingly opened their borders to financial flows, Rey argued in an influential speech to central bankers at Jackson Hole, Wyoming, in 2013 that the scale of financial globalization had called this theory into question.

Because many key decisions were made at the center of the system (the United States) and then exported to the rest of the world through globalization, countries can no longer insulate themselves through their exchange rate.

Instead of an impossible trinity, the world now simply faced a dilemma—independent monetary policies are possible if and only if the capital account is managed, directly or indirectly (Rey, 2013).

"The picture emerging is that of a world with powerful global financial cycles characterized by large common movements in asset prices, gross flows, and leverage [debt]," says Rey.

Whenever capital is freely mobile, the global financial cycle constrains national monetary policies regardless of the exchange rate regime.

"The belief largely is that if you have a flexible exchange rate, then that exchange rate can insulate you from financial shocks and so you can pursue your independent monetary policy. In fact, that's what inflation targeters have been arguing. But if you have a global financial cycle, like I am suggesting, then that cannot be the case: your exchange rate cannot insulate you—you cannot cut yourself off," says Rey.

What is the "impossible trinity"?

The impossible trinity, or "trilemma," suggests that it is impossible for a country to maintain simultaneously a fixed exchange rate, the free movement of capital, and an independent monetary policy.

British economist Marcus Fleming and Canadian economist Robert Mundell coauthored the Mundell-Fleming model of exchange rates in 1962 and noted that it was impossible to have domestic autonomy, fixed exchange rates, and free capital flows: no more than two of those objectives could be met.

The theory of the impossible trinity has since become one of the foundations of an open economy, given voice in the 1990s by economists Maurice Obstfeld and Alan Taylor.

At the most general level, policymakers in open economies—those that buy and sell goods and services and capital assets in global markets with a minimum of barriers—face a macroeconomic trilemma. Typically they are confronted with three often desirable, yet contradictory, objectives: stabilize the exchange rate, enjoy free international capital mobility, and engage in monetary policy oriented toward domestic goals. Because only two of the three objectives can be mutually consistent, policymakers must decide which one to give up. This is the trilemma.

"If she is right," says Gourinchas, "we have to rethink our guiding principles about how we manage monetary policy in an open economy."

"In a way, it is more of a research agenda than something that is already established," continues Gourinchas. "Hélène, in her Jackson Hole piece—and in some of her recent work— is raising a series of questions rather than supplying definitive answers."

Blanchard says Rey's research is significant. "Relative to the previous position that you could insulate yourself just by allowing the exchange rate to float, this is quite a different position. I think it is largely right and likely to be quite influential in the way we think about, say, how emerging markets should react to these sharp movements in capital flows."

Need for greater controls

Countries should react, says Rey, with stronger management and supervision of capital flows across countries because these flows have been destabilizing and helped cause crises.

In the wake of the havoc of the global financial crisis, it is hard to ascertain or measure the real gains from financial openness and freely moving capital. Indeed, Rey—who contributes to the French financial daily *Les Echos* and is also on an advisory board for the French finance minister—says the benefits of financial globalization are hard to find.

"Trillions of dollars have crossed borders, and yet despite our best efforts and hundreds of studies, it has been extraordinarily difficult for economists to identify any benefits from these flows. "Of course, it's entirely possible that parts of these flows are very beneficial. It is also highly possible that parts of the financial sector reaped large benefits. But for everyone else, hot money flows were not risk sharing but risk creating."

She argues that if these international capital flows haven't done much good, and in fact cause crises, then "we have to restrict some of them, which we can do through macroprudential policy or through capital controls. And I support the idea that everyone would be better off—except maybe some parts of the financial sector."

Macroprudential policies, reinforced following the global financial crisis, aim to contain or minimize risk originating within the financial system by taking precautionary measures in advance and improving regulation and supervision of the overall system. "Macroprudential policy has now become very important—but the question is whether or not it is going to work to prevent the next crisis."

"It's the marriage of theory and empirics that makes her work so relevant."

Recent moves to increase capital requirements for banks, along with stress-testing measures, were steps in the right direction, she says.

Uneven effects of globalization

Rey has also done work on shifts in the international financial system—the creation of the euro and the crisis in Europe, the rise of China, and the integration of the global economy into a global cycle. She was a member of a panel that made recommendations in 2011 on how to reform the international monetary system, including by strengthening the IMF and allowing it to borrow directly through commercial markets (Farhi, Gourinchas, and Rey, 2011). At present the IMF can raise money only from member governments.

Lane says her joint work on financial globalization with Philippe Martin, a professor of economics at Sciences Po in Paris, deserves more attention (Martin and Rey, 2006). The Martin-Rey collaboration developed a series of models about the implications of the integration of economies with asymmetric or unbalanced financial systems (core versus periphery economies in Europe; advanced versus emerging market economies at the global level).

"Hélène is one of the economists who has shaped the rethinking of financial globalization, taking a more nuanced view on its benefits—for example, the fact that it may generate more financial crises in emerging markets," says Martin.

"The same goes on the role of financial globalization in international adjustment and the classical trilemma. In each case, she revisited a classical and crucial issue to show that some new dimensions of financial globalization (valuation effects, the global financial cycle) should change our views on these classical questions,"

On Europe, fixing the region's legacy debt problem and introducing a more credible fiscal framework are two keys to stabilizing the euro area, says Rey.

"Putting Greece to the side—because the Greek situation is quite different from the other countries—Europe needs



Black swans in Regent's Park, London, United Kingdom.

a more credible fiscal framework. First you have to sort out the debt overhang from the crisis. You cannot enforce a more credible framework while some countries have a debt ratio of 130 percent to GDP because then they are 'too big to fail' and that's not credible."

Asked about the implications of the rise of China, Rey says it is clear that the most populous country is becoming more important in the world economy.

But it will take time for China's currency to be accepted alongside the dollar as a global currency. "China's growing very fast, but its financial infrastructure and banking system are still very undeveloped. So it will take a long time for the renminbi to become as significant as the dollar, or even overtake it.

"It's not going to happen tomorrow—that's for sure!"

Future black swans

Are there any black swans in our future? "Well, by definition, it's something we haven't thought about, or don't know much about," she says with a disarming smile.

"But there's a couple of things that are clearly worrying—the large amount of derivative positions that are out there. It's a bit of a black hole. Maybe it's okay and maybe it's not. We don't know how they will unravel.

"And the other thing many people think about is cyber-security—that's a growing problem, and we don't fully understand the vulnerabilities. But it doesn't mean it's a black swan. Risk is endogenous to the system!"

Jeremy Clift is Publisher of the IMF and a former Editor-in-Chief of Finance & Development.

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Students taking notes in class, Oudomxay province, Laos.

Aiming High

Charles Kenny

New development goals could spur progress toward better-quality life around the world is a banner year for global development. It marks the deadline for the Millennium Development Goals (MDGs), ambitious targets for global progress set by world leaders at the United Nations at the turn of the 20th century. And while it might come as a surprise to those in Japan, Europe, or North America, the past 15 years may have been the period of greatest progress in humanity's quality of life. Not least, the available data suggest that we have seen the fastest declines in global child mortality and absolute poverty in recorded history. As a result, we have far surpassed the first MDG—to halve the number of people worldwide living on less than \$1.25 a day.





The year 2015 is also the starting date for the Sustainable Development Goals (SDGs) to be agreed at the United Nations this fall. These goals outline a vision of progress to 2030 covering poverty, health, education, security, the environment, governance, gender equality, and much more. And a conference in Addis Ababa in July this year will try to finance that new agenda. Finally, at a meeting of the United Nations Climate Change Conference in Paris in December, countries will pledge to cut greenhouse gas emissions, with the hope of setting us on a path away from catastrophic global warming.

The next 15 years could be as transformative as the past decade and a half. The draft SDGs reflect a global aspiration for even faster progress. That will take unprecedented effort both within and across countries. The Financing for Development Conference taking place in Addis Ababa was organized to figure out what that effort will look like—and certainly has its work cut out for it. The Paris conference is vital

to ensuring that human progress is environmentally sustainable. But perhaps the most important condition for success this year is wider recognition by advanced economies that sustainable development is in their own interest: the world's economies, health, and well-being are sufficiently intertwined that failure in Addis Ababa or Paris would be as much a tragedy for them as for the developing world.

Goals for a new millennium

The MDGs emerged from the Millennium Declaration, a statement by leaders gathered at the United Nations in 2000. The document was filled with aspirations for a just and lasting peace, respect for human rights and fundamental freedoms, and regard for nature. But it also included specific targets drawn from a decade of UN conferences: cutting in half the proportion of people living on less than a dollar a day (later increased to \$1.25 in 2005 dollars); universal completion of primary school and gender equality in education enrollment; reduction of maternal mortality by three-quarters and of under-five child mortality by two-thirds; and reversal of the spread of HIV/AIDS, the scourge of malaria, and other major diseases. These targets formed the basis for six millennium goals, joined by a goal on environmental sustainability and one outlining a global partnership for development.

There has been immense and heartening progress in development over the past 15 years, including in the areas highlighted in the MDGs. On a number of measures, the rate of improvement is historically unprecedented. Between 1999 and 2011 alone, the proportion of the population in the developing world living on less than \$1.25 a day fell from 34 percent to 17 percent—a halving in just 12 years. China's spectacular growth performance was a large part of this story (the number of people living under \$1.25 fell from 451 million to 84 million in that country), but it was not the only reason.

Over that same period, extreme poverty in the developing countries of sub-Saharan Africa fell from 59 to 47 percent of the population. And over those same 12 years, net primary school enrollment in the sub-Saharan region increased from

The potential for continued progress over the next 15 years is considerable.

58 to 77 percent. That means that one-fifth of the school-age children who would not have been in school at the enrollment levels in 2000 were in school just over a decade later. Girls' primary school enrollment in 2011 was 74 percent, reflecting convergence in education access between boys and girls over that period.

Perhaps the best news is the dramatic decline in the number of parents who face the pain of burying their child. Between 2000 and 2013, according to the latest World Bank data, the proportion of children born in developing countries who died before their fifth birthday fell from 8.4 to 5.0 percent. In sub-Saharan Africa the decline was from 15.6 to 9.2 percent—more than 40 percent in just 13 years. In Senegal, which has seen a particularly rapid improvement in child health, there was more than a 50:50 chance that a woman who bore the average number of children in 2000 would lose at least one of them before the age of five (56 percent). By 2012 the risk was one in four (26 percent). That is still far too high, but progress has been incredibly rapid.

The lion's share of credit for these improvements goes to the people and governments of developing countries. It is the hard work of men and women on farms and in businesses that supports their families' consumption. It is sacrifices by parents that are getting children out of the labor market and into schools and ensuring that children sleep under bed nets and get their shots. And it is the governments of the developing world that are providing the money and public goods necessary to ensure that work and schooling pay off in terms of a better life. Developing countries worked hard to achieve the kind of macroeconomic stability that underpins growth. Between 2000 and 2015, annual government revenues in emerging market and developing economies climbed from about \$3.2 trillion to \$9.3 trillion according to IMF World Economic Outlook database figures. These revenues are the backbone of the health and education services, roads and electricity lines, and legal systems that allow commerce to flow and lives to improve.



Girls in classroom, Ghana.

But global cooperation and exchange—flows of goods, services, people, knowledge, and ideas—played a huge part too. Take China's progress against poverty: Chinese companies backed by foreign investors that exported their products worldwide were a large part of that country's economic growth. Foreign-invested enterprises accounted for over half of China's exports and imports and provided for 30 percent of Chinese industrial output according to that country's Ministry of Commerce. Between 2000 and 2013, exports accounted on average for 30 percent of the country's GDP, with accession to the World Trade Organization in 2001 helping sustain the vitality of the country's export sector. Without international trade and investment, the world's most rapid decline ever in absolute poverty simply wouldn't have happened.

Or look at the importance of migration flows to development prospects. Migrants have sent back huge amounts of money to their home countries. Remittances account for 9 percent of Bangladesh's GDP, 10 percent of Guatemala's, and 23 percent of Lesotho's, for example. At least as important, migrant flows lubricate the flow of investment, trade, and ideas (see "A Long Commute," in the March 2015 F&D). In 2000, fully one-third of the high-skilled workers in California's Silicon Valley were foreign born, and Indian expatriates were responsible for founding 13 percent of the region's start-ups. But they also maintained links with innovators and entrepreneurs back home, and those contacts were key to building what is now a \$146 billion information technology (IT) and business processing industry in India, employing 3.5 million people and exporting more than two-thirds of its output.

When it comes to gains in health, official development assistance has played a significant role. About half the households in sub-Saharan Africa now own a bed net, and the proportion of the population sleeping under a net increased from 2 percent in 2000 to 33 percent in 2011. The majority were financed by aid, and the nets have played an important role in the estimated one-third decline in malaria deaths in Africa since 2000. Most of the funding for vaccines in low-

income countries was also made possible through aid, and deaths related to vaccine-preventable conditions have plummeted since 2000: worldwide measles deaths fell from 542,000 to 158,000 between 2000 and 2011.

What role did the millennium goals play in the past 15 years of progress and the international cooperation that supported it? The Millennium Declaration and the goals were aspirational and by no means legally binding, but they did help provide a framework for development dialogue, especially around aid. Between 2001 and 2010, aid as a percentage of donor country GDP climbed from 0.21 to 0.32 percent. And more of that aid went to Africa and social sectors—two focuses of the goals. But my investigation with my colleague Sarah Dykstra of the Center for Global Development suggests there is a weak link between overall aid flows and the speed of

improvement in health, education, and other MDG indicators. And while improvement was especially rapid over the past 15 years, it is hard to find a speeding up in those rates since 2000 in particular, according to an analysis by Howard Friedman of Columbia University.

Aid may have had a slight impact on marginally more rapid progress across MDG indicators since the turn of the 21st century. That may sound like only a minor accomplishment, but at the global level such change can still amount to millions of lives saved or improved. And that is enough to make the goal-setting exercise worth trying again.

Sustainable progress?

The potential for continued progress over the next 15 years is considerable. There are risks, of course: Lawrence Summers and Lant Pritchett of Harvard University noted in a recent paper that "abnormally rapid growth is rarely persistent," which suggests that the recent strong performance of countries and regions, including China, India, and sub-Saharan Africa, may not continue. If that is true, progress against income poverty would slow dramatically. Dani Rodrik, of the Institute for Advanced Study, notes that the manufacturing sector, a vital part of growth in east Asian "miracle" countries, is no longer the source of employment and output it once was—weakening a key mechanism of income convergence. That is to say nothing of the challenges posed by climate change to agricultural production and coastland infrastructure and by diseases such as swine flu on global health and commerce.

On the other hand, developing countries have posted very rapid growth over the past decade despite a declining manufacturing share. New sectors—not least mobile telecommunications—have played an important part in that growth. And most developing countries are entering the era of the SDGs in a considerably stronger fiscal position than at the start of the MDGs. Across developing countries as a whole, debt service as a percentage of GDP, for example, dropped from 5.9 percent

in 2000 to 3.1 percent in 2013. And average inflation across developing countries in 2013, at 4.3 percent, was both subdued and lower than in 2000, suggesting a considerably improved macroeconomic situation. If growth is exceptionally strong across the developing world, and all countries sustain the optimistic IMF short-term forecasts for all of the next 15 years, growth could lift all but a few percent of the world's population above an absolute poverty line of \$1.25. Or consider health: the recent Lancet Commission on Investing in Health sees the potential for targeted health expenditures to reduce under-five mortality to below 1.6 percent worldwide by 2035 (from a current average of 7.6 percent in low-income countries).

Ambitious goals

Even such optimistic forecasts as these proved insufficient, however, for the UN Open Working Group, which drafted the SDGs. It called for universal and unprecedented progress across a wide range of development areas. The 17 proposed SDGs and their 169 targets cover everything from nature-friendly tourism to violence against children and from waste management and artisanal fishing to gender inequality, employment, and Internet access. By 2030 the draft goals call for us to have ended extreme poverty and malnutrition; achieved full employment; attained universal health coverage; wiped out AIDS, tuberculosis, and malaria; achieved universal secondary education; ensured universal access to water, sanitation, modern energy, and communications—and much more. And they also call for all that progress to be environmentally sustainable.

If the SDGs are designed to focus the development dialogue, it is hard to see what is excluded from that focus—except civil and political rights. And it is not clear how this massively expanded and extremely ambitious goal-setting agenda will drive actual progress toward development.

But if the world is to come even close to meeting the targets set for 2030 there must be an unprecedented domestic effort backed by similarly unprecedented global cooperation across the range of cross-border flows—not only (or even

If the SDGs are designed to focus the development dialogue, it is hard to see what is excluded from that focus.

primarily) aid but also trade, finance, migration, and technology. And that makes July's Financing for Development Conference a vital moment. Developing countries wanted the conference to take place before the SDGs were agreed, precisely to emphasize that such an ambitious set of development goals could be accomplished only in the context of a strong global partnership.

The good news is that the initial draft of the declaration for the conference, produced in March 2015, is wide ranging and ambitious. The declaration calls for a global package of services



Primary school students washing their hands, Oudomxay province, Laos.



Young student beneficiaries of the PROMER education improvement program in rural Argentina.

to be available to all, covering social and physical infrastructure. It highlights the importance of increasing developing countries' domestic capacity to deliver development—not least by reaching a revenue-to-GDP ratio of 20 percent. And it also calls for reform and policy commitment on improved tax cooperation, greater multilateral financial flows, support for private sector investment, more and better aid, better access to markets for low-income exports, and improved technology sharing.

But the declaration should offer more specifics: a target for more market-rate financial flows from donor governments and multilateral institutions such as the World Bank and the Asian Infrastructure Investment Bank to support infrastructure rollout; a commitment by donors to fund the costs of the universal package of basic social and infrastructure services that cannot reasonably be met by domestic resources; more information on transparency (including published budget details and government contracts and a public register of ultimate ownership of companies); and a stronger commitment to migration and technology as tools for development.

In everyone's interest

A strong agreement in Addis Ababa and progress toward the SDGs depend on advanced economies' understanding that the issue is not altruism but naked self-interest. In 2002, when rich countries took part in the Monterey Conference and discussed global cooperation to meet the MDGs, these countries may have asked, "What can we do for them?" This time around the process can only be seen as "What can we do for each other?" Even though developing countries need global ties to make progress, at issue now is not persuading

cash-strapped Organisation for Economic Co-operation and Development finance ministers to be a little less skinflint but tackling a set of global problems that can be resolved only with the support of the developing world.

Take trade: if you look at where the industrialized world is exporting, it is to the developing world. Three-fifths of total U.S. exports go to low- and middle-income countries. U.S. automaker General Motors recovered from the effects of the global financial crisis solely because of exports: in 2009

The only way to stop new pandemics in a globalized world is to tackle them fast.

it sold nearly as many cars in China as in the United States. And what about public finance? In 2000, average external debt in developing countries was about 83 percent of GDP, and two-thirds of those countries still had external-debt-to-GDP ratios above 50 percent. By 2011, average external debt had plummeted to 42 percent, and fewer than 1 in 3 had a ratio higher than 50 percent. That improved fiscal situation contributed significantly to the ability of international financial institutions such as the IMF to focus their resources and attention during the crisis on rich countries like Greece, Ireland, and Portugal.

Or look at health: if western African nations, including Nigeria and Senegal, had not stopped the spread of Ebola and the outbreak had reached Lagos, Dakar, and beyond,



Students awaiting lunch meals served in school, Oudomxay province, Laos.

the global cost would have been immense in terms of disrupted trade and travel—in addition to the tragic loss of life. World Bank estimates suggest a severe flu pandemic could cost the world \$3 trillion, mostly because of disrupted commerce—and a more deadly disease would cost even more. The only way to stop new pandemics in a globalized world is to tackle them fast when they emerge, and that means strong local health systems.

Then there is migration: growth in the Indian IT sector relied on skills transfer from the United States, but U.S. growth relies on immigrants, who account for about a quarter of the country's patent applications. And U.S. health depends on the rest of the world, not only because of the threat of pandemics, but because one-fifth of the nurses working in the United States were educated abroad. As the industrial world ages, its demand for migrants will only grow.

And finally, when it comes to sustainability, the developing world is already the major player: it will soon be responsible for two-thirds of annual carbon dioxide emissions and is home to the great majority of the planet's biodiversity.

Far too many children still die of easily prevented illnesses, and many who survive are failed by schools that don't teach, economies that don't provide good jobs, and utilities whose water and power are unreliable. But our global progress against those ills since the turn of the millennium has been incredible. The world would benefit immeasurably if that

progress accelerated over the next 15 years—in a way sustainable over the centuries that follow. This is why we all need a strong global financing deal from Addis Ababa this summer, followed by a forceful deal on climate in Paris. Global cooperation is increasingly important to deliver sustainable development progress. Without it, all the fine words spoken and goals for progress set at the General Assembly in New York will be so much hot air and stale ink.

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A Quest for Quality High growth alone will not improve social conditions

Montfort Mlachila, René Tapsoba, and Sampawende Tapsoba

RANSLATING strong growth into better living conditions is the holy grail for policymakers in developing economies, many of which have experienced strong economic growth in the past decade. But poverty, inequality, and unemployment indicators remain stubbornly high in many countries. The quality of growth is as important as its level—maybe even more important. High growth alone will not improve social outcomes.

There is increasing agreement that inclusive growth—that benefits all members of society—is an important element of so-called good growth. The common denominator of inclusive growth is its quality, which can mean different things to different people.

Like beauty, quality growth is in the eye of the beholder.

Recent economic and political history has shown

that high growth does not necessarily lead to better social outcomes. Likewise, good social outcomes without sound growth are unsustainable (Berg, Ostry, and Zettelmeyer, 2012).

Good growth in developing economies must promote the ultimate goals of any development policy—better living standards, lower poverty, and reduced inequality.

A mushrooming literature shows that countries with high, durable, and socially friendly growth are more likely to improve living standards and reduce poverty faster (see, for example, Dollar and Kraay, 2002; Sala-i-Martin, 2006). Good growth should, therefore, ensure inclusion of segments of the population that are on the fringes of the growth process. Redistribution of the fruits of growth is less important than ensuring that growth is broad based and leads to better social outcomes.

The measure of quality

Despite consensus in the economics profession that growth alone does not lead to better social outcomes (Ianchovichina and Gable, 2012), quality growth still lacks a rigorous definition or formal quantification.

In a recent paper (Mlachila, Tapsoba, and Tapsoba, 2014), we develop a quality of growth index (QGI) that captures both the intrinsic nature of growth and its social dimension.

Our premise is that not all growth produces favorable social outcomes. How growth is generated is critical to its sustainability and ability to create decent jobs, enhance living standards, and reduce poverty. We aim in our design of the QGI to capture these





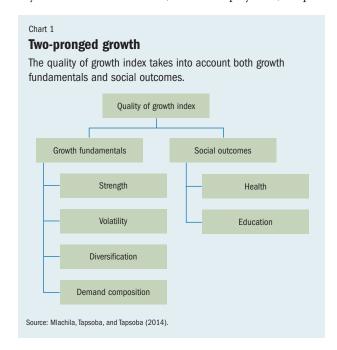
multidimensional features of growth by focusing on its very nature and desired social outcomes.

The QGI is a composite index, simple and transparent in its design. The index results from the aggregation of two building blocks: the intrinsic nature of growth—its strength, stability, diversification, and outward orientation—and the social dimension, representing the desired social outputs from growth (see Chart 1).

The quality of growth is as important as its level—maybe even more important.

Strong, stable, diversified, and export-oriented growth is necessary to curb poverty (Dollar and Kraay, 2002). Unstable growth worsens poverty and undermines equality because the erosion of poor people's skills during bad times is not remedied when the economy pulls out of a crisis (Ames and others, 2001). Diversified growth reduces variability in economic performance (Papageorgiou and Spatafora, 2012), which helps reduce poverty. And export-oriented growth is more likely to raise productivity growth, including via learning-by-doing, importation of advanced technologies, transfer of knowledge, the discipline of the world market, competition, and foreign direct investment (Diao, Rattsø, and Stokke, 2006). Such outward orientation of growth can also increase a country's vulnerability to fluctuations in the external environment, but the QGI addresses this concern to some degree by accounting for growth volatility.

In addition, a long and healthy life, along with access to a good education, is an important and well-accepted indicator of poverty reduction (Sen, 2003). The QGI omits other key variables of inclusiveness, such as employment, inequal-



ity, and environmental factors, because of data limitations. The index ranges from 0 to 1—with 1 as the highest score for good growth—and covers more than 90 developing economies during 1990–2011.

What is new about the index? Is it just a rehash of the well-known Human Development Index (HDI) developed by the United Nations (UNDP, 1990) or of other welfare indicators? Not at all: there are notable differences.

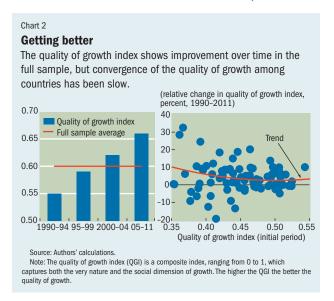
The QGI goes beyond income levels and focuses on the very nature of growth. The HDI is mostly income based, building as it does on the level of income per capita in a given year. It can be argued that the HDI actually represents millennia of accumulated growth—the level of income at a given date is the sum of growth episodes. The advantage of the QGI is its ability to assess the quality of specific episodes of growth both within and across countries. This feature lets policymakers know whether their growth strategy is yielding good results. Moreover, the QGI has the ability to identify growth and social outcomes actually attributable to current or recent policies.

The QGI also differs from the recently developed Social Progress Index (SPI; Stern and others, 2014). The SPI, more than the HDI, focuses on aspects that are close to the social dimension of the QGI but doesn't take into account the fundamental aspects of growth that are at the core of the QGI.

QGI findings

Several important themes emerge from our empirical investigation of the QGI.

The quality of growth has been improving over the past two decades (see Chart 2), thanks to the confluence of a number of factors, including global moderation of external shocks such as terms-of-trade fluctuations; the implementation of generally sound macroeconomic policies; and a gradual shift toward more socially friendly public spending. These have contributed to raising growth, reducing its volatility, improving its composition, and enhancing its potential to deliver better social outcomes. In addition, the conver-



gence of the quality of growth among countries is relatively sluggish. The lowest performers tend to catch up to the best performers over time, but only slowly. This follows the traditional convergence hypothesis found in the growth literature. In other words, once a country's quality of growth is high it becomes increasingly difficult to keep on improving it—just as there are biological limits to the improvement of life expectancy. Conversely, countries with low QGI tend to improve the quality of their growth at a relative faster pace. Lasting improvements in social outcomes call for sustained highquality growth over a long time—30 to 40 years. Countries such as China and Malaysia have made great strides on this front, though social safety nets have yet to be fully developed. A number of African countries, such as Tanzania and

Vulnerable groups The quality of growth index shows lower-than-average quality of growth in low-income, fragile, and sub-Saharan African countries. (quality of growth index, 1990-2011) 0.8 0.8 0.6 0.4 LMIC UMIC Fragile Nonfragile SSA MENA AP - Full sample average Source: Authors' calculations. Note: The quality of growth index (QGI) is a composite index, ranging from 0 to 1, which captures both the very nature and the social dimension of growth. The higher the OGI the AP = Asia and Pacific; CEE = central and eastern Europe; Fragile = fragile countries; LA = Latin America: LIC = low-income countries: LMIC = lower-middle-income countries

Chart 4 In the driver's seat

Africa; UMIC = upper-middle-income countries.

The main influencers of the quality of growth index are quality of bureaucracy, social spending, and foreign direct investment.

MENA = Middle East and North Africa; Nonfragile = nonfragile countries; SSA = sub-Saharan

(impact on quality of growth index of change in variable, 1990-2011) 0.08 0.06 0.04 0.02 0.00

Note: The quality of growth index (QGI) is a composite index, ranging from 0 to 1, which captures both the very nature and the social dimension of growth. The higher the OGI the better the quality of growth. For social spending, private credit, and foreign direct investment as percent of GDP: impact of 5 percentage point increase. For quality of bureaucracy, government stability, stability of inflation, and stability of terms of trade: impact of a 1 standard deviation

Zambia, have achieved notable improvements in the quality of growth, but they must sustain this momentum over time.

There are considerable cross-country variations in income levels and regions (see Chart 3). Unsurprisingly, uppermiddle-income countries record the highest scores, followed

The QGI could help guide a strategy for successful growth in the developing world.

by lower-middle-income countries and low-income countries. Also unsurprisingly, fragile states are faced with structural impediments to the quality of growth and generally fall behind in this area.

From a regional perspective, Latin America, central and eastern Europe, and Asia and the Pacific stand out as the best QGI performers, mostly because of significant improvement in the index's social component. Latin America started from a weak base, suffering from high poverty and income inequality in the early 1990s, and the performance of central and eastern Europe on the QGI was boosted by strong social advances after the transition to market economies in that region. Strong, mostly export-oriented growth that brought substantial productivity gains through technology and innovation transfers was the main driver in Asia and the Pacific. These trailblazers are followed by the Middle East and North Africa region, which is helped by an improvement in the social dimension, coupled with relatively strong growth. Sub-Saharan African countries rank at the bottom despite their recent robust growth, which has yet to translate into better social outcomes.

Empirical models indicate that there is considerable scope for policymakers to improve the quality of growth (see Chart 4) by improving macroeconomic and political stability, institutional quality, pro-poor public spending, and financial development. And a more favorable external environment certainly also helps.

Increased public resources for social sectors such as health and education help strengthen human capital, which not only raises productivity of the economy as a whole, but also opens the door to equal opportunity for individuals to reap the fruits of higher growth. Greater financial development, which eases access to credit, helps unleash the private sector's potential for creating wealth and good jobs. And external conditions, especially foreign direct investment, fill domestic savings shortfalls for domestic investment and accelerate the transfer of technology and knowledge.

Room for improvement

Even though the QGI contributes to the ongoing analysis of unequal growth, there are ways to improve the index. It has potential as a timely and cost-effective tool for policymakers to monitor the progress of inclusive growth. But, like all indices, it is only as good as the underlying data. The quality of social data is particularly weak and patchy, so we were forced to make a number of interpolations and use five-year averages in our calculations. The index could be enhanced by including measures of inequality as well as labor market variables.

Last but not least, a word of caution: the QGI does not address long-term sustainability. Simply put, the index cannot predict whether a country's current policies—which may improve the quality of growth today—will lead to economic or environmental disaster in the long run. For instance, a country may improve its quality of growth by rapidly depleting its natural resources or running up public debt.

The QGI is a useful tool in the quest for better measurement of the quality of growth and could help guide a strategy for successful growth in the developing world.

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Severe drought leaves mineral deposits on canyon walls, Lake Mead, Nevada, United States.

Kalpana Kochhar, Catherine Pattillo, and Yan Sun

We never know the worth of water till the well is dry.

— Thomas Fuller

Getting
incentives right
can go a long
way toward
managing
water
challenges
while protecting
the poor

HE largest reservoir system serving São Paulo, Brazil, is nearing depletion. A combination of population growth, deforestation, polluted rivers, and the worst drought in southeast Brazil in nearly a century has forced many residents to endure sporadic service interruptions. Some have gone days without water. Residents have resorted to drilling private wells or hoarding water to wash clothes and flush toilets.

Thousands of miles to the north, parts of the United States are also experiencing severe water shortages, driven by decades of unsustainable consumption combined with drought conditions. A "bathtub ring" lines Lake Mead, the largest reservoir in the United States, marking the level water once reached. In April 2015, California state regulators passed significant mandatory cuts to water use, beyond the already strict limits on watering and landscaping, with heavy fines imposed on violators. Farmers foresee leav-

ing up to 1 million acres of farmland uncultivated, almost twice as much as last year.

In January 2015, the most devastating floods in living memory ravaged Malawi, a densely populated low-income country whose people survive on subsistence farming. The floods displaced nearly a quarter of a million people and destroyed crops, villages, and livestock. Malawian President Peter Mutharika declared half the country a disaster zone.

These are just some of the water challenges plaguing countries across the globe. People throughout the world face rising constraints on their ability to obtain water in a usable form, when and where it is needed. Globally, 1.2 billion people, or one in six, live in areas with an inadequate water supply, approximately one in nine lacks access to safe drinking water, and every minute a child dies of a water-related disease.

Water challenges can have large adverse economic, social, and environmental consequences. Since water is a crucial input for agriculture and a host of other industries, shortages and supply variability can lead to food insecurity, push up production costs,



and constrain productivity growth. For example, water-related shocks may have reduced Mozambique's GDP growth by as much as 1.1 percentage points a year during 1981–2004, according to the World Bank (2007).

Lack of access to safe drinking water and improved sanitation inhibits development in a variety of other ways too, including by raising the prevalence of disease, worsening health

and nutrition outcomes, and lowering the participation of women—who are typically tasked with collecting and hauling water for household use—in education and income-generating activities. Degradation of water can also dry up activity in sectors such as tourism that depend on environmental quality.

But sound policies and institutions have helped even countries with low endowments of water successfully manage this scarce natural resource, accord-

ing to a new IMF study. Underpricing often leads to overuse and undersupply, the study finds. By setting the right incentives, governments can effectively cope with these challenges and, at the same time, provide for the water needs of the poor.

A thirstier world

A rising tide of demand for water is putting increasing pressure on water resources in many countries. The global stock of freshwater available for human use is limited and unevenly distributed; more than 60 percent of it is found in just 10 countries. On a per capita basis, freshwater available in the Middle East and North Africa region is only a tiny fraction of that in Latin America. Even in countries with an abundant supply of water overall, particular regions could face severe water shortages. And water availability in any given location can also vary significantly throughout the year as a result of interannual climate variation, seasonal variation, droughts, and floods.

As the cases of southeast Brazil and California illustrate, many parts of the world are already experiencing water shortages, and millions of people have difficulty fulfilling their basic water needs. The World Resources Institute found that 36 countries face high water stress, defined as withdrawing more than 40 percent of the annual available supply (Gassert and others, 2013). This level of use can cause shortages in specific localities and result in environmental damage.

Furthermore, the demand for water is set to continue rising with population growth, urbanization, and economic expansion. Although there is some evidence of water use leveling off as countries grow wealthier, long-term scenarios forecast large increases in water use that, for many countries, cannot be met by existing supplies. Technological advances such as desalination and recycling have helped ease water supply constraints in some advanced economies but are expensive and require substantial up-front investment. Climate change and underinvestment in water infrastructure are expected to exacerbate this water demand-supply imbalance.

Assigning a price to water is complicated because of its unique features and the social, environmental, and politi-

cal considerations surrounding it. Water is a heterogeneous commodity that can be used sequentially; it can be a private good (for example, when purchased in a bottle or delivered to a house via a pipeline) or a public good (for example, accessible to anyone from lakes, rivers, and underground aquifers). Because water is bulky and costly to move, its transport and storage frequently require considerable initial investment

and ongoing maintenance costs that can be difficult to accurately reflect in a price charged to users.

In addition, universal access to water has long been viewed as a human right and is a clearly stated global public policy goal; attempts to price water need to be carefully executed to avoid undermining this objective. Moreover, externalities such as the environmental impact of water use and the reduction in availability for other users are hard to

capture in water pricing, not least because the amount used—especially of groundwater extracted—is difficult to monitor.

The things which have the greatest value in use have frequently little or no value in exchange; on the contrary, those which have the greatest value in exchange have frequently little or no value in use.

— Adam Smith

Leaky system

In many countries, water management resembles a system of leaky pipes. Uses with privileged access or favored by regulation sometimes siphon off more than their fair share, leaving uses with higher social and economic value at a loss. Financial resources often flow more abundantly to poorly targeted implicit subsidies, at the expense of proper water infrastructure maintenance and investment or the development of technologies to improve efficiency. This exacerbates future water shortages or leaves segments of the population without access.

Existing price signals are often way off the mark. The IMF study found that public water utilities in many countries charge just a fraction of the amount needed to cover all supply costs, such as those for maintenance. Based on these estimated price gaps and the quantity of water consumed, water subsidies totaled almost \$500 billion, or about 0.6 percent of global GDP, in 2012. They ranged from 0.3 percent of GDP in advanced economies to more than 1.5 percent of GDP in developing economies in Asia, the Middle East, and North Africa, swelling to as high as 5 percent of GDP in some countries.

Water subsidies are also inequitable. It's easy to see the logic of subsidizing safe drinking water and sanitation up to a basic level, but subsidies often cover uses beyond these needs and extend to those with sufficient income to pay the costs of provision. In fact, given that in many developing economies the poor lack access to water and sanitation, or use less than higher-income consumers, water subsidies often disproportionately benefit the relatively well-off. For example, Cabo Verde, India, and Nicaragua provide the richest households with three dollars' worth of subsidized water, on average, for every dollar's worth provided to the poorest ones.

Water subsidies are rarely reported in government budgets or appropriately funded. Instead, they are reflected in the underfunding of maintenance, the deterioration of water infrastructure, and the financial losses of public utilities. Like

a neglected pipe that finally bursts, the true costs of providing water eventually appear down the road. Physical losses and inefficient management combine to drain funds that could be used for investment. A World Bank study found that these sources reduce potential revenue of public utilities by a substantial margin—in developed economies by 15 percent and in developing economies by an average of over 30 percent (Kingdom, Liemberger, and Marin, 2006; see Chart 1).

Plugging the leaks

Getting the price of water right can help balance competing demands and scarce supplies. Reforming pricing could foster conservation, investment, and the development of new water-saving technologies, especially in advanced economies, where per capita use is typically higher. In developing economies, reforms could strengthen the finances of public water

Like a neglected pipe that finally bursts, the true costs of providing water eventually appear.

utilities, promoting investment and expanding access. At the same time, it is important that resources mobilized by pricing reforms not be diverted to other uses.

Pricing reforms should be designed in a way that protects the poor. The most desirable approach depends on a country's administrative capacity and the access of vulnerable groups to existing water networks. One option is a tiered tariff structure that subsidizes basic water use; for the poor to benefit, this requires a high proportion of households to be connected to the public water network. Other alternatives include subsidizing water at public pumps or water connections for low-income consumers and targeted income assistance to poor households.

Burkina Faso, one of the five country case studies in the IMF analysis, introduced progressive tariffs for drinking water—for example, high-volume users subsidized low-volume users and a portion of sanitation costs. In Singapore, a city-state with a low natural endowment of water, there is no subsidized basic water consumption. Instead, the government provides targeted social assistance to low-income families.

Extraction charges are another tool to help rationalize demand for water and address externalities. This is especially important since a large amount of water is extracted directly by users from the ground, rather than purchased from public water utilities.

Many advanced economies levy water-extraction charges. Germany, for example, has introduced charges with the dual objective of decreasing extraction and raising revenue for environmental protection. In Belgium's Flanders region, groundwater charges increase with the total amount pumped. In Canada, most provinces levy license fees on major water users.

Regulatory reforms can also help promote greater use of clean technologies, better water management, and allocation of water to its most productive uses. For example, in Australia, the establishment of markets for water rights has

led to a shift toward higher-value-added agricultural production and adoption of more efficient irrigation technologies (Bjornlund and McKay, 2002).

Investment in water infrastructure should be increased across a broad range of countries, with specific priorities depending on their individual circumstances. Developing economies with low access need to expand their water distribution networks and raise storage capacity. Many countries whose populations already enjoy widespread access need to replace aging infrastructure and sustain or unlock future water supply. Ensuring adequate maintenance spending should be a priority for all countries, though doing so may require additional fiscal resources, a particularly acute issue in developing countries.

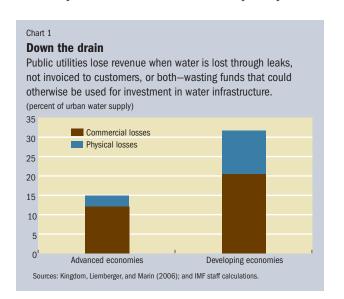
Delegating management of water resources to strong and independent institutions has helped many countries meet their water challenges. For example, the autonomous Public Utilities Board in Singapore is responsible for all aspects of the water cycle (such as collection, production, distribution, and reclamation) and has played a key role in diversifying water supply sources, promoting research on water-saving technologies, and fostering conservation.

Burkina Faso's public water utility, L'Office national d'eau et d'assainissement, executed performance-based service contracts with the government in the early 2000s and brought in experienced private management. Investment projects were carefully selected according to an assessment of their capacity for cost returns, with donors playing a key role in providing financing. These reforms have helped to dramatically expand access to water.

From guzzling to sipping

Water pricing reforms should be complemented by reforms of other policies that directly or indirectly bloat water use. In many countries, the inefficient use of water in agriculture stems from a raft of other policies, including agricultural price supports, trade restrictions, and rigidities in land and financial markets.

In Pakistan, one of the most water-stressed countries in the world despite an abundant endowment, crops are predomi-



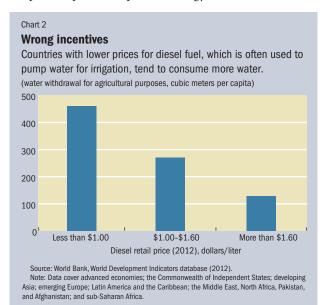
nantly irrigated, and agriculture consumes about 95 percent of annual available surface water. Yet agriculture is largely untaxed, even though it accounts for 20 percent of GDP and employs 40 percent of the population. Irrigation fees are based on land area rather than actual water consumption, which has impeded the adoption of more efficient technology and less-water-intensive crops.

Subsidized energy prices also create disincentives for efficient use of water in agriculture, because they reduce the cost of pumping groundwater. In Yemen, diesel fuel subsidies, which were in effect until 2014, kept the cost of pumping groundwater for irrigation artificially low. This motivated farmers to grow water-intensive crops, one factor that contributed to the more than 20 percent decline in water availability per capita over the past decade. Indeed, countries with lower prices for diesel fuel—which is frequently used to pump groundwater for irrigation—tend to use more water (see Chart 2).

On a more fundamental level, policymakers need to ensure that water pricing and use take into account that water is both essential and finite. Achieving sound water management requires an integrated and holistic approach: economic, social, and environmental policies should be coherent and mutually reinforcing. It also demands ownership and concerted efforts from stakeholders at all levels—local, regional, and international.

The IMF can—and should—play a helpful role in ensuring that countries' macroeconomic policies are conducive to sound water management. One key way of doing so is by advising countries on how to strengthen their public investment management systems, which will allow them to spend an adequate amount on maintenance and better prioritize public investment. In collaboration with institutions with expertise in water issues (such as the World Bank), the IMF can help raise awareness by assessing the impact of water challenges on poor and vulnerable groups, economic growth, and public finances.

In addition, the IMF can encourage macroeconomic policies to help governments get the incentives right while protecting the poor. In particular, perverse energy and water subsidies—



those with adverse consequences that work against the policymakers' intended goal—should be replaced with targeted social support. The goal is for countries to succeed in designing macroeconomic policies that create fiscal space or catalyze financing, which can help increase water-related investment to improve access to water, strengthen resilience to supply variability, and sustain or unlock future supplies.

A case in point is Burkina Faso. Thirty years ago the riverbanks of Bagré supported only subsistence farming. Then the government created a large reservoir by constructing a dam on the Nakanabe River and adopted a strategy to encourage economic activity in the area. Today, the river and surrounding area support a wide array of agricultural production, a fish hatchery, eco-tourism, and electricity generation, all of which attract investment from the private sector and generate employment. Diseases that were prevalent have been eradicated, food is in abundant supply, the economic security of families has improved, and school attendance has greatly increased.

The strides made in Burkina Faso point to the benefits of sound policies and institutions in water management. Despite its scarce endowment of water and highly variable rainfall, access to drinking water has doubled over the past two decades, catalyzed by the pricing and institutional reforms mentioned above.

So is the glass half empty or half full? The progress made in places like Burkina Faso, one of the world's poorest countries, gives cause for optimism. Getting the incentives right for smart water use will take work. But concerted efforts can help improve living standards today and secure this precious natural resource for future generations.

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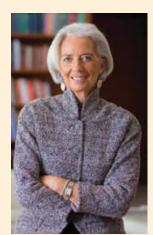
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Path to Development

International partnership, commitment, and flexibility are essential to improve the global condition



Christine Lagarde is the IMF's Managing Director.

HE Roman philosopher Seneca observed that "if a man knows not to which port he sails, no wind is favorable." Two millennia later, this remains a timeless reminder of the importance of setting goals. Despite the cynicism frequently associated with such aspirations, the truth is that goals are invaluable—focusing minds, forging partnerships, and, ultimately, finding solutions.

Seneca's observation is especially relevant this year, as the international community comes together to agree on the next phase for development through 2030 and beyond. Crucial decisions will be made across the board—from the financing framework, to environmental targets, to the Sustainable Development Goals (SDGs), which will succeed the Millennium Development Goals (MDGs). This opportunity likely will not repeat itself for at least a generation.

Significant strides have been made since the MDGs were adopted in 2000. These include three key "halvings"—of global poverty, of the likelihood of a child dying before age five, and of the proportion of people without access to safe water. But progress has varied. Although a number of developing countries have graduated to "frontier" status, some fragile and conflict-affected states have tragically fallen behind.

We must also consider how much the world has changed over the past 15 years. The global economy has become increasingly interconnected through technology, trade, and finance, leading to larger spillovers across borders and greater interdependence among countries. The rise of many emerging market economies has contrasted with setbacks in advanced economies hit hard by the Great Recession.

Guiding principles

From looking at the past, considering the present, and contemplating the future, I see three guiding principles for the post-2015 development agenda:

Partnership: Achieving our development goals will require comprehensive partnership to implement the right policies and provide the needed resources. This means advanced, emerging market, and developing economies working together—and with the private sector and civil society—nationally and internationally.

Commitment: Every partner needs to demonstrate sustained commitment that will endure well beyond 2030. In other words, political will can provide the spark, but it must be long-lived to sustain the flame.

Flexibility: Development efforts must be approached flexibly where possible. Policies must be tailored to the unique circumstances of individual countries, with room to adapt as the world evolves.

How can we translate these guiding principles into substantive action to address poverty and promote development?

National priorities

Let me first make something clear—although they are not expected to do it alone, developing countries are in the best position to drive their own development.

Getting the basics right is a prerequisite. This means implementing sound macroeconomic policies—including containing inflation, boom-bust cycles, and public debt. Healthy fiscal positions and adequate international reserves prepare countries for adverse shocks over which they have little or no control. And strong institutions promote confidence and predictability to support policy implementation and private investment. With these basics in place, countries must also take additional steps to support development.

Mobilizing revenues is a priority. While there should be flexibility across countries, taxes must be simple, broad-based, and administered effectively. Transparency in extractive industries is also key.

Once revenues are raised, they must be used efficiently and effectively in pursuit



of development and supported by strong public financial management. Strengthening project management and procurement practices is particularly important as developing economies respond to urgent infrastructure needs with public—and, in many cases, private—investment.

Indeed, the private sector is an essential partner for development. Developing the financial sector—for example, by protecting creditor rights—can expand access to basic financial services for individuals and small enterprises. Carefully designed tax and trade regimes can help attract foreign investment, with vital development payoffs.

Beyond these measures, developing economies must also go the extra mile with policies to spread the benefits of growth to all segments of the population and contain environmental damage. Delivering effective public services, getting more women into the workforce, establishing social protection systems, and getting carbon pricing right are important ways to accomplish these goals.

International support

I know that what I have described is a tough task. But it is the role of the international community to support these efforts by fostering an enabling environment and coordinating action on challenges that transcend borders. Cooperation cannot be optional for international partners; it is a responsibility, an obligation.

Why? Because we live in an interdependent world of spillovers and spillbacks, where multiple forces—financial, economic, social, political, environmental—reverberate across the globe. The results can be transformative, but they can also be devastating. The key to getting it right is international cooperation.

Besides the need for responsible policymaking to promote global economic and financial resilience, I see five other priority areas where commitment to international cooperation can support development:

Trade: Developing economies would benefit from a global trading system that is rules based, nondiscriminatory, and equitable.

Revenue: International tax cooperation to tackle avoidance and discourage tax competition among countries would safeguard revenues in developing economies, which are essential for social and development spending.

Aid: Advanced economies with the budget capacity to do so should make it a priority to increase aid, which is essential for many of the world's poorest countries.

Debt: Strengthening the framework for handling sovereign debt crises to promote efficient and timely resolution is a priority. The IMF has an active work program to advance reforms.

Environment: Global warming can only be addressed effectively through international partnerships, including containing CO_2 emissions and assisting low-income countries as they adapt to climate change.

It seems appropriate that the first letter of each priority spells out the word "trade"—not because of the word's modern connotation, which is a priority in its own right,

but because its underlying meaning as a form of exchange, partnership, and cooperation is so fundamental to global development efforts.

The IMF's role

In both a national and international context, I see an important role for the IMF in the post-2015 development agenda. As the preeminent institution supporting global macroeconomic and financial stability, the IMF is already deeply involved in development—working with our 188 member

Cooperation cannot be optional for international partners; it is a responsibility, an obligation.

countries on policy design and implementation, capacity building, and lending to countries in need.

But we are continually looking for ways to do more. In this pivotal year, I am committed to enhancing the IMF's support for developing economies across three broad fronts:

Finance: We will explore how we can boost access to our loans for developing countries to help them better handle external shocks. In particular, we will increase our focus on helping the poorest and most fragile countries.

Policy: To advance the inclusion of more people in the growth process, we will deepen our efforts to bring issues such as inequality, gender, and access to finance into our country-level advice. Leveraging the expertise of partner institutions will be of key importance.

Capacity building: We will boost our capacity building and advice to countries as they invest in their economic potential. Technical assistance will focus on the areas that need it most, including support for revenue mobilization and infrastructure investment. We will also intensify our efforts in the countries that need it most—fragile and conflict-affected states.

We must deliver on these fronts—and we will.

Chance to shape the future

Seneca, whom I mentioned earlier, was a philosopher in the stoic tradition. One of the key stoic beliefs is commonly described today as "actions speak louder than words."

This is a sentiment the international community must take to heart as it prepares for three conferences that together represent a once-in-a-generation opportunity for development. From July's Financing for Development conference in Addis Ababa, to September's Development Goals summit in New York, to the Environmental Targets gathering in Paris in December, we must grasp our chance to shape the future.

And if we are to be successful—not only in 2015 but through 2030 and beyond—we must be guided by three key principles: partnership, commitment, and flexibility. ■

Gløbal G@als

Governments put forward 17 goals to respond to global challenges

ORLD leaders are set to adopt a new set of Sustainable Development Goals (SDGs) at a United Nations conference in September. The SDGs are goals, targets, and indicators that governments around the world will be expected to achieve over the next 15 years. The 17 proposed goals include ending poverty and hunger, making cities safe, protecting the oceans, reducing inequality, and creating jobs. In addition to reducing poverty, the SDGs are supposed to steer money and government policy toward areas where they can do the most good.

The SDGs will replace the eight Millennium Development Goals (MDGs), which governments agreed to in 2000 and are due to expire in 2015. The narrower MDGs focused on halving poverty and improving the lives of the world's poorest by 2015. As the MDG deadline approaches, the important goal of cutting extreme poverty in half was met ahead of time in 2010, but nearly 1 billion people still live in extreme poverty—as measured by the World Bank at \$1.25 a day—and more than 800 million people do not have enough food to eat.

Millennium Development Goals for 2000–15

- Eradicate extreme poverty and hunger
- 5 Improve maternal health
- Achieve universal primary education
- Combat HIV/AIDS, malaria, and other diseases
- Promote gender equality and empower women
- Ensure environmental sustainability

Reduce child mortality

Develop a global partnership for development



Sustainable Development Goals for 2016–30



- 1. End poverty
- 2. End hunger





PEOPLE

- 3. Ensure well-being
- 4. Ensure quality education
- 5. Achieve gender equality
- 6. Ensure water and sanitation for all
- 11. Make cities and settlements safe





PROSPERITY

- 7. Ensure affordable and sustainable energy
- 8. Promote decent work for all
- 9. Build resilient infrastructure and foster innovation
- 10. Reduce inequality
- 12. Ensure sustainable consumption





JUSTICE

16. Promote peaceful societies





PLANET

- 13. Stop climate change
- 14. Protect the ocean
- 15. Take care of the earth





PARTNERSHIP

17. Strengthen partnership for sustainable development





of Terrorism

Subhayu Bandyopadhyay, Todd Sandler, and Javed Younas

Terrorists not only exact a direct human cost, they can cause innumerable economic problems too

EW technology has lowered transportation costs and increased trade and capital flows across nations. But the same technology that has fostered international economic growth has also allowed terrorism to spread easily among countries whose interests are tightly interwoven. Terrorism is no longer solely a local issue. Terrorists can strike from thousands of miles away and cause vast destruction.

The effects of terrorism can be terrifyingly direct. People are kidnapped or killed. Pipelines are sabotaged. Bombers strike markets, buses, and restaurants with devastating effect. But terrorism inflicts more than human casualties and material losses. It can also cause serious indirect harm to countries and economies by increasing the costs of economic transactions—for example, because of enhanced security measures to ensure the safety of employees and customers or higher insurance premiums. Terrorist attacks in Yemen on the USS *Cole* in 2000 and on the French tanker *Limburg* in 2002 seriously

damaged that country's shipping industry. These attacks contributed to a 300 percent rise in insurance premiums for ships using that route and led ships to bypass Yemen entirely (Enders and Sandler, 2012).

In this article we explore the economic burden of terrorism. It can take myriad forms, but we focus on three: national income losses and growth-retarding effects, dampened foreign direct investment, and disparate effects on international trade.

Disrupting production

Economic researchers have found, perhaps unsurprisingly, that rich, large, and diversified economies are better able to withstand the effects of terrorist attacks than small, poor, and more specialized economies.

If terrorism disrupts productive activities in one sector in a diversified economy, resources can easily flow to another unaffected sector. In addition, richer economies have more and better resources to devote to counterterrorism efforts, which presum-

ably reduces the number of terrorist activities with which they must cope.

In contrast, small developing economies, which are specialized in a few sectors, may not have such resilience. Resources such as labor or capital may either flow from an affected sector to less productive activities within the country or move to another country entirely. Moreover, developing economies are likely to lack specialized resources—such as surveillance equipment or a technologically advanced police force or army—that can be employed in counterterrorism. This allows the terrorist threat to persist, which can scare away potential investors. A terrorist attack against such a nation is likely to impose larger and more lasting macroeconomic costs.

The dramatic attacks on the United States on September 11, 2001, for example, caused an estimated \$80 billion in losses. Large as they were, however, the losses were a tiny fraction (less than 0.1 percent) of the nearly \$10.6 trillion 2001 U.S. GDP. Similarly, Blomberg, Hess, and Orphanides (2004) found rather modest effects on average in 177 nations from transnational terrorist attacks during 1968–2000. Per capita GDP growth was reduced by 0.048 percent on an annual basis.

But the effects are more dire in smaller nations, such as Colombia and Israel, and regions, such as the Basque Country in Spain, where terrorism-related damage has been much more significant. For example, terrorism cost the Basque Country more than 10 percent in per capita GDP losses from the mid-1970s to the mid-1990s, when the problem was acute (Abadie and Gardeazabal, 2003). Moreover, terrorism affects economies differently, depending on their stage of development. Gaibulloev and Sandler (2009) divided a sample of 42 Asian countries into 7 developed and 35 developing economies. Their estimates suggest that terrorism did not significantly hamper growth in the developed economies, but they show that each additional transnational terrorist incident (per million people) reduced an affected developing economy's growth rate by about 1.4 percent. These findings further support the notion that smaller developing economies are more economically vulnerable to terrorism than those that are richer and diversified.

Scaring off investors

Increased terrorism in a particular area tends to depress the expected return on capital invested there, which shifts investment elsewhere. This reduces the stock of productive capital and the flow of productivity-enhancing technology to the affected nation.

For example, from the mid-1970s through 1991, terrorist incidents reduced net foreign direct investment in Spain by 13.5 percent and in Greece by 11.9 percent (Enders and Sandler, 1996). In fact, the initial loss of productive resources as a result of terrorism may increase manyfold because potential foreign investors shift their investments to other, presumably safer, destinations. Abadie and Gardeazabal (2008) showed that a relatively small increase in the perceived risk of terrorism can cause an outsized reduction in a country's

net stock of foreign direct investment and inflict significant damage on its economy. We analyzed 78 developing economies over the period 1984–2008 (Bandyopadhyay, Sandler, and Younas, 2014) and found that on average a relatively small increase in a country's domestic terrorist incidents per 100,000 persons sharply reduced net foreign direct investment. There was a similarly large reduction in net investment if the terrorist incidents originated abroad or involved foreigners or foreign assets in the attacked country. We also found that greater official aid flows can substantially offset the damage to foreign direct investment—perhaps in part because the increased aid allows recipient nations to invest in more effective counterterrorism efforts.

Most countries that experienced above-average domestic or transnational terrorist incidents during 1970–2011 received less foreign direct investment or foreign aid than the average

Depressing effects of terrorism

Most countries with more than average terrorist incidents have lower foreign direct investment (FDI) and aid.

	Domestic Terrorism Incidents	Transnational Terrorism Incidents	FDI (percent of GDP)	Aid (percent of GDP)
Algeria	27.17	2.93	0.76	0.60
Angola	*	1.74	6.57	3.32
Argentina	10.31	5.79	1.48	0.06
Bangladesh	10.67	*	0.28	4.35
Brazil	*	1.88	1.64	0.07
Cambodia	*	1.79	5.41	11.49
Chile	42.38	5.67	4.03	0.19
Colombia	101.31	23.10	1.88	0.45
Ecuador	*	1.38	1.17	0.73
Egypt	10.21	*	2.55	5.70
El Salvador	72.31	6.33	1.95	2.52
Ethiopia	*	1.52	1.95	10.16
Guatemala	24.60	7.74	1.43	1.39
Honduras	*	2.07	2.52	6.17
India	92.33	8.10	0.62	0.65
Indonesia	*	1.38	0.76	1.34
Iran	8.76	2.86	0.52	0.08
Israel	24.95	2.10	1.74	3.48
Lebanon	12.69	14.52	11.58	2.47
Mexico	*	3.26	1.79	0.06
Nicaragua	17.98	2.66	2.41	11.37
Nigeria	*	2.00	2.71	0.84
Pakistan	61.17	7.10	0.79	2.81
Peru	110.57	8.79	1.92	0.91
Philippines	40.26	8.05	1.06	1.22
South Africa	32.34	*	0.76	0.32
Sri Lanka	32.36	2.90	0.88	4.96
Sudan	*	1.52	2.61	4.60
Thailand	22.17	1.43	2.12	0.59
Turkey	40.55	6.50	0.72	0.37
Venezuela	*	1.90	1.00	0.04
Yemen	*	1.67	1.37	3.52
Average, 122 Countries	7.51	1.38	2.90	6.74

Source: Authors' calculations.

Note: Data refer to the average number of terrorist incidents, average level of foreign direct investment, and average amount of foreign aid per year from 1970 until 2011. An asterisk indicates that the number of terrorist incidents was below the average of the 122 developing economies in the total sample. Some countries are not included because of warlike conditions or unavailability of data. In foreign direct investment, a foreign entity controls an enterprise rather than having merely a portfolio interest. Aid includes both bilateral and multilateral assistance.



among the 122 in the sample (see table). It is difficult to assess causation, but the table suggests a troubling association between terrorism and depressed aid and foreign direct investment, both of which are crucial for developing economies.

It is generally believed that there are higher risks in trading with a nation afflicted by terrorism, which cause an increase in transaction costs and tend to reduce trade. For example, after the September 11 attacks on New York City and the Washington, D.C., area, the U.S. border was temporarily closed, holding up truck traffic between the United States and Canada for an extended time. Nitsch and Schumacher (2004) analyzed a sample of 200 countries over the period 1960–93 and found that when terrorism incidents in a pair of trading countries double in one year, trade between them

Smaller developing economies are more economically vulnerable to terrorism than those that are richer and diversified.

falls by about 4 percent that same year. They also found that when one of two trading partners suffers at least one terrorist attack, it reduces trade between them to 91 percent of what it would be in the absence of terrorism. Blomberg and Hess (2006) estimated that terrorism and other internal and external conflicts retard trade as much as a 30 percent tariff. More specifically, they found that any trading partner that experienced terrorism experienced close to a 4 percent reduction in bilateral trade.

But Egger and Gassebner (2015) found more modest trade effects. Terrorism had few to no short-term effects; it was significant over the medium term, which they defined as "more than one and a half years after an attack/incident." Abstracting from the impact of transaction costs from terrorism, Bandyopadhyay and Sandler (2014b) found that terrorism may not necessarily reduce trade, because resources can be reallocated. If terrorism disproportionately harmed one productive resource (say land) relative to another (say labor), then resources would flow to the labor-intensive sector. If a country exported labor-intensive goods, such as textiles, terrorism could actually lead to increased production and exportation. In other words, although terrorism may reduce trade in a particular product because it increases transaction costs, its ultimate impact may be either to raise or reduce overall trade. These apparently contradictory empirical and theoretical findings present rich prospects for future study.

Of course terrorism has repercussions beyond human and material destruction and the economic effects discussed in this article. Terrorism also influences immigration and immigration policy. The traditional gains and losses from the international movement of labor may be magnified by national security considerations rooted in a terrorism response.

For example, a recent study by Bandyopadhyay and Sandler (2014a) focused on a terrorist organization based in a developing country. It showed that the immigration policy of the developed country targeted by the terrorist group can be critical to containing transnational terrorism. Transnational terrorism targeted at well-protected developed countries tends to be more skill intensive: it takes a relatively sophisticated terrorist to plan and successfully execute such an attack. Immigration policies that attract highly skilled people to developed countries can drain the pool of highly skilled terrorist recruits and may cut down on transnational terrorism.

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Unbroken

Outlawed almost everywhere, slavery lives on in the dark recesses of the global economy

Marja Ruotanen, Gianluca Esposito, and Petya Nestorova

For years Anna could not find work in her hometown. A seemingly kind person offered her a job on a mushroom farm abroad. All Anna had to do was borrow some money, pay a few fees, and hand over her passport. He would take care of the rest. Anna left her family and friends, only to find herself working in terrible conditions on the farm. She was intimidated and physically abused. Her employer withheld her wages, saying she owed him money.

One day, the police raided the farm. They arrested all the workers and held them in detention for having false passports and no working permits. They realized Anna had been trafficked so they gave her a choice: press charges or go to jail. But the traffickers threatened to harm Anna's family back home. She had no money for a lawyer, and the traffickers' lawyers claimed she was lying and had violated the law. The judge could not find enough evidence to charge the traffickers. Anna was told she had to leave the country. Since she could not pay back the money she had borrowed to go abroad, she stayed illegally and found work as a domestic worker. Her new employer exploited her too, but she was afraid to go to the police. She was trapped . . .

HIS true story of Anna, from the website of La Strada International, a nongovernmental organization (NGO)—including what should have happened but didn't—is, sadly, not unique. It is a story of threats and use of force, deception and exploitation, identification challenges and revictimization. This is human

trafficking: a 21st century form of slavery. Anna is one of several million victims of human trafficking around the world—for sexual, labor, and other purposes. Data are not easy to gather in what is fundamentally an underground criminal activity, so the official figures on identified victims are probably only the tip of the iceberg.



The number of victims of trafficking is on the rise. In 2012, the International Labour Organization (ILO) estimated that 20.9 million people were victims of forced labor and sexual exploitation. More recently, the Walk Free Foundation, in its 2014 Global Slavery Index, published a new estimate of modern slavery, bringing the number to 35.8 million people.

Illegal proceeds from human trafficking are also increasing, making it one of the most lucrative criminal activities. The ILO estimates the illicit profits of forced labor to be \$150 billion a year (2014 data). The profits are highest in Asia (\$51.8 billion) and developed economies outside Asia (\$46.9 billion).

Economics' law of supply and demand drives traffickers. Although there is no established pattern, generally victims are sent to destinations where the demand for low- or no-cost labor or sexual exploitation is higher. Victims are usually lured into the trafficking ring through deception and the promise of a better life. So they often come from countries with weak economic conditions, including high unemployment.

Combating trafficking in human beings is both a moral imperative and an economic need. It is a moral imperative because traffickers treat human beings as disposable commodities and commit the worst forms of human rights violations. It is an economic need because the use of trafficked people to work around the clock for little or no pay inhibits fair competition. The large illegal proceeds generated by human trafficking are often laundered and integrated—with an aura of legality—in the legitimate economy, potentially threatening financial and economic stability.

Signing help into law

Preventing and combating trafficking in human beings, and identifying and protecting victims, presents numerous challenges, including

- victims' lack of awareness of where to turn and the protective measures available;
- victims' fear and mistrust of public authorities, which prevent them from reaching out and seeking help;
- authorities' difficulty in distinguishing between smuggled migrants and victims of trafficking: the former consented to smuggling and their journey ends in another country, while the latter either never consented or their consent was rendered meaningless by false promises and information; and
- prosecution challenges—for instance, difficulty in gathering evidence and securing effective international cooperation.

Human trafficking can take place domestically, but crossing a border is often a distinguishing feature of the crime. International cooperation is, therefore, essential to prevention and to bringing traffickers to justice. The United Nations (UN) took the lead in 2000 and adopted the Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children (the so-called Palermo Protocol). Today 166 countries around the world are bound by this ground-breaking international legislation.

The Palermo Protocol contains the first globally agreed definition of human trafficking. It aims to facilitate a unified approach to domestic criminal offenses across countries to support efficient international cooperation in investigating and prosecuting these crimes. The protocol also aims to protect and assist victims of trafficking. It is supported by the UN Global Plan of Action to Combat Trafficking in Persons, which also established a trust fund to aid and support victims.

Victims often come from countries with weak economic conditions, including high unemployment.

With nearly 2 million people living in modern slavery across its member countries, according to some estimates (2014 Global Slavery Index), the Council of Europe—whose primary mission is to protect and promote human rights, democracy, and the rule of law—could not ignore this major human rights violation. It adopted its Convention on Action against Trafficking in Human Beings in 2005. Forty-three European countries are bound by it.

Although it builds on the Palermo Protocol (and on some effective domestic legislation), the Council of Europe convention goes further in many respects. It focuses on the protection of and assistance to victims of trafficking (for example, offering subsistence, access to emergency medical treatment, education for children) and the safeguarding of their rights (via assistance such as interpretation and translation services, counseling, and legal advice), as well as on the prevention of trafficking and the prosecution of traffickers. Non-European states are also permitted to sign on to the convention, as has Belarus.

Some of the provisions of the Council of Europe antitrafficking convention are far reaching and are already inspiring national policies and legislation in Europe and around the world. The convention applies to all forms of trafficking—national and transnational, related to organized crime or not. It applies whether the victim is a woman, man, or child; whatever the form of exploitation; and whether the victim is exploited sexually or for forced labor or services.

It obligates states to implement assistance and protection measures for victims. The convention requires countries to provide for a recovery and reflection period of at least 30 days. During this period, victims in a country illegally or with only short-term residence permits may not be deported. This protection allows them to recover free of the influence of traffickers so they can make an informed decision about cooperating with the authorities.

To discourage trafficking and reduce demand, the convention criminalizes those who use the services of victims. This builds on other preventive measures, such as awareness raising and education. Countries must also ensure that victims are not punished for unlawful activities they were forced to

commit. Finally, the convention enshrines the right to compensation for victims from the perpetrators or the state.

The Council of Europe convention set up an independent monitoring mechanism (Group of Experts on Action against Trafficking in Human Beings, GRETA), which periodically evaluates those states that are bound by the Convention—to ensure compliance with its provisions. By pushing for legal or institutional changes and better and more integrated antitrafficking policies, GRETA is already making a difference for millions of victims.

Other international organizations are also very active in antitrafficking. The Organization for Security and Co-operation in Europe (OSCE) adopted the Action Plan to Combat Trafficking in Human Beings in 2003. This plan, expanded in 2013, provides measures to help countries implement their commitments to combat trafficking in human beings and a follow-up mechanism that promotes coordination between states, both within the OSCE and with other international organizations. The plan, like the treaties discussed above, adopts a multidimensional approach to combating and preventing human trafficking, protection of victims, prevention of trafficking, and prosecution of those who facilitate or commit the crime.

At the regional level, the European Union (EU) issued a directive in 2011 on preventing and combating trafficking in human beings and protecting victims. It aims to harmonize the definition of the crime and the related penalties. It sets out provisions for the protection, assistance, and support of victims, as well as provisions to prevent the crime and better monitor and evaluate EU efforts in this area.

In Latin America—where an estimated 1 million people live in modern slavery (2014 Global Slavery Index)—the Organization of American States adopted a new work plan in December 2014 to combat trafficking. It aims to promote full implementation of the Palermo Protocol; foster interagency cooperation and coordination bilaterally, regionally, and internationally among its members and with international organizations; and improve the work of government agencies that deal with trafficking. The plan seeks to reduce vulnerability to human trafficking; train professionals, institutions, and organizations engaged in combating trafficking; distribute reports on how to fight the problem; and mobilize society to prevent human trafficking and raise awareness of its risks and consequences.

Partnering against abuse

Legislation can launch justice for victims. But responsibility for the fight also lies with a broad swath of society. A key component of action against trafficking is cooperation and partnership of public authorities, such as law enforcement, with civil society and private organizations. The industry and trade sector should ensure that the products they sell and the services they provide are not the result of exploitation. The tourism sector should be vigilant against being misused for trafficking purposes since trafficked victims are sometimes brought into a country disguised as tourists. The tourism sector can also play an important preventive role by joining

with public authorities in their efforts to raise awareness. And the media can build public awareness of trafficking and discourage demand by influencing public opinion. Public-private partnerships—domestically and internationally—are an essential aspect of any successful antitrafficking strategy.

Clearly, the international community agrees on the need for a multidisciplinary, multidimensional approach to human trafficking. This approach broadly includes preventive and assistance measures, as well as prosecution and international cooperation. But while adopting treaties (and ratifying them), issuing action plans, and passing regional and domestic legislation are good, these measures must be effectively implemented to make a difference in the lives of victims of trafficking. Checking the boxes and comply-

Combating trafficking in human beings is both a moral imperative and an economic need.

ing with the letter of the law will not eradicate this modern form of slavery. Assistance to and protection of victims, continued commitment from those on the front lines to alleviating victims' suffering and fear, proactive prosecution of traffickers, and effective monitoring such as envisaged by the Council of Europe convention can all help ensure compliance.

The next step is for countries to measure the effectiveness of their response to trafficking. Does coordination among all the relevant agencies at a national level really occur? How many victims of trafficking are identified and recognized as such when they enter a police station, instead of being "confused" with illegal migrants? Do victims receive physical, psychological, and social assistance? How well and in what circumstances are cases of trafficking investigated? Are traffickers prosecuted and convicted, and are their assets confiscated? Are victims compensated, and how much? Are sanctions against natural and legal persons convicted for trafficking offenses effective, proportionate, and dissuasive? Are victims protected from potential retaliation or intimidation, in particular during and after investigation and prosecution of the perpetrators? Do countries provide constructive and timely international cooperation in trafficking cases, and how effective is that cooperation?

The answers to these and other questions are likely to provide a reality check as to whether domestic and international norms are effective in practice—to prevent people like Anna from entering the spiral of trafficking and to bring all traffickers to justice.

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CURRENCY NOTES



Paperback Builders

South Africa pays tribute to the country's diversity in its latest currency design

Simon Willson

OUNTRIES with more than one official language often use public signage as affirmation of the status and usage of the national mother tongues. Thus road signs, official publications, national mottos or coats of arms, postage stamps, airliner decals, and other prominent platforms become vehicles for displaying and familiarizing two or three official languages.

Try 11.

That was the task facing newly democratic South Africa in 1994 when the self-styled "rainbow nation" succeeded the pariah apartheid state of the previous half century. Among the many novel features of the new nation was a sweeping expansion in the official language count. To foster a new sense of inclusive nationhood among the country's diverse ethnicities, the two official languages that prevailed before 1994 became the 11 of the new South Africa.

The English and Afrikaans of pre-1994 South Africa were supplemented after the democratic elections of that year by

Ndebele, Northern Sotho, Sotho, Swazi, Tsonga, Tswana, Venda, Xhosa, and Zulu.

Nation builders looking for public platforms for 11 official languages can forget nearly all of the usual standbys available to two or three mother tongues. But one display medium still presents itself as uniquely qualified to promote 11 languages to a diverse nation: in daily use by nearly all citizens, easily recognized by color and design, supremely portable and storable, and a status symbol to boot: not the postage stamp—which is falling into digital desuetude—but the banknote.

Four functions

The latest reissue of South Africa's five principal banknotes, officially launched in November 2012, serves four main functions, according to the South African Reserve Bank, which produced the notes.

• Commemorating former president Nelson Mandela, who died in 2013: Mandela's appearance on the front of all five





new notes is further formal recognition of his status as father of the new nation;

- Upgrading the security features of the national currency: Central banks worldwide have to stay one step ahead of the increasingly sophisticated scanners and printers available to counterfeiters;
- Promoting the "big five" big game species—rhinoceros, elephant, lion, buffalo, and leopard—in a country where wildlife conservation awareness is rising and safari parks are a major tourist draw; and
- Showcasing each of the country's 11 official languages, to foster inclusion and cohesion among ethnicities that were once encouraged to develop separately.

Another novel feature of the latest launch is the use of websites and social media to promote familiarity and acceptance of the new banknotes. South Africa is an emerging economy in a fast process of urbanization, but also with an informal sector that operates outside the formal structure of regulated and tax-paying commerce and employment. Information about sudden changes in currency design may therefore not easily reach such informal actors.

Cash economy

Because the informal sector is largely unbanked and therefore almost entirely cash based, wide recognition and acceptance of coins and banknotes are crucial to its effective operation. So the Reserve Bank announced it would sync the launch of the new banknotes with national road shows, taking samples of the new notes to "retail malls, transportation hubs, and pension pay points in urban and rural areas of the country's nine provinces."

We want to reach every South African through this communication campaign. It is our responsibility as the Reserve Bank to protect the credibility of the South African currency. This can only be done by making sure that the public know their money and its distinct features really well.

 — Hlengani Mathebula, head of the South African Reserve Bank's Group Strategy and Communications Department

Online and social media promotions detailed the appearance of the new cash and also urged a hands-on experience to its new users: "Members of the public are encouraged to continue to LOOK, FEEL and TILT the banknotes to check for a combination of security features," the central bank's website declaims.

Two by two

The 11 official languages are distributed among the five new banknotes by featuring English on the front of all the notes, and the other official languages in twos on the back of each denomination.

Information about the new banknotes has been published across a variety of communications platforms, including radio, television, billboards, banners, the Reserve Bank website, and print and online media also encompassing social media and mobile device sites.

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Continental REACH

Alexandra Born and Paul Mathieu

African banking groups are expanding across the region, challenging traditional players and supervisors

FRICA-based banks, once largely domestic, are expanding across the continent and now dominate the banking sector in many countries. These so-called pan-African banks are establishing cross-border networks and overtaking the European and U.S. banks, which traditionally dominated banking on the continent. The new pan-African players are driving the expansion of financial services and economic integration in Africa, helping unlock the huge potential of a fast-growing region.

Pan-African banks originate mainly in the largest economies of Africa, such as South Africa, Nigeria, and Morocco, and from countries of influence within a region, such as Kenya. But one of the major pan-African institutions, Ecobank, is headquartered in tiny Togo. Ecobank emerged in the mid-1980s in the context of the 15-nation Economic Community of West African States, and although not the largest of the pan-African banks in terms of assets, it surpasses them all in geographic reach.

At a time when global banks have moved their business away from smaller-scale and higher-risk operations, the expansion of African players bodes well for financial sector development in Africa. These regional institutions are not only filling in the gaps left by the retreating global banks but are fostering financial development and economic integration. However, to be sustainable and to avoid raising systemic risks and the type of financial instability experienced elsewhere, this expansion of banks with significant cross-border networks must be accompanied by stronger supervision and heightened cross-border cooperation.

Taking off

South Africa's Standard Bank has been active across borders for a number of years. But other banks began to grow their regional operations in earnest in the mid-2000s. The number of subsidiaries almost doubled between 2006 and 2010 (see Chart 1), from 48 to 88, as the cross-border expansion of banks from Morocco and Nigeria's United Bank for Africa gained traction. This rapid cross-border expansion was aided by improved political and macroeconomic stability and robust economic growth as well as the following specific factors:

- The end of apartheid in the mid-1990s, which opened the door for banks headquartered in South Africa to extend their expertise abroad;
- Increased trade linkages among African countries—inducing, in particular, banks in South Africa and Kenya to follow their customers abroad;



An employee counts currency at a bank branch in Johannesburg, South Africa.

- Decisions by banks in Morocco to establish a regional presence to the south because of more limited opportunities at home and in Europe—including by buying the local operations of retrenching European banks;
- The large increase in minimum capital requirements in Nigeria that followed a banking crisis in the mid-2000s, which motivated banks to consider expanding abroad to make use of their new larger capital bases; and
- Ecobank's long-standing social ambition, dating to its establishment in the mid-1980s, to become Africa's leading pan-African bank.

For pan-African banks, two basic business structures have emerged (see Chart 2). One is a traditional model of expansion from a dominant home base; the other was designed to be a diversified network structure from the get-go.

Banks in the traditional model have expanded from a large home base, which continues to play the dominant role in the group's activities. In these cases, cross-border subsidiaries contribute less than 20 percent to total assets, with the contribution of any individual subsidiary a lot less. In this group are South African and Moroccan banks and to a lesser extent Nigerian banks.

For banks in the second group, none of which has a dominant home base, the network is most important. Although a bank holding company centrally manages the subsidiaries, the bank subsidiary in the nominal home country is but one among many, and the largest subsidiary might be located in a different country. Examples of this arrangement are Ecobank—headquartered in Togo but with its biggest subsidiary in Nigeria—and Bank of Africa, founded and headquar-

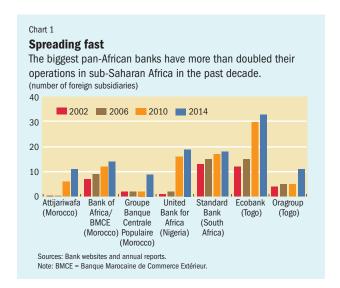
Pan-African banks have exported innovative business models.

tered first in Mali, with the holding company later moved to Luxembourg and eventually acquired by Moroccan Banque Marocaine de Commerce Extérieur. There are a number of banks whose structures fall between the two models. Moreover, as cross-border operations grow, the dominance of the home presence in the group diminishes.

Servicing the underbanked

The economies of both host and home countries receive numerous benefits from cross-border banking. The rise of pan-African banks has increased competition and efficiency, introduced product innovation and more modern management and information systems, and brought higher skills and expertise to host banking sectors. A number of pan-African banks have exported innovative business models and delivery channels, such as mobile banking by Kenyan institutions, to host countries. These advances have helped expand the availability of banking services and products (often called financial deepening).

Pan-African banks have also extended banking services to people with inadequate access to bank services, the so-called



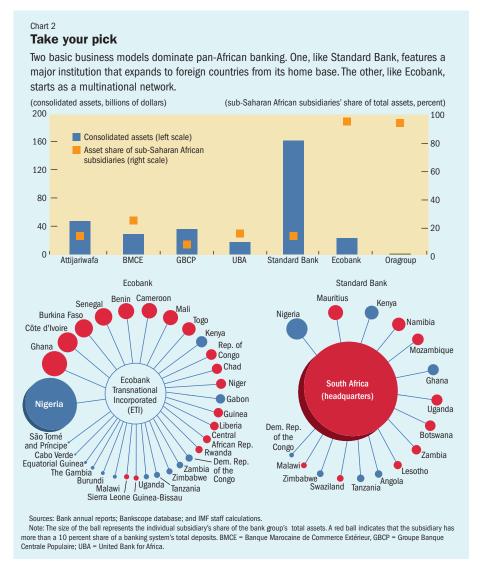
underbanked. For example, when Kenyan banks started operations in other member countries of the East African Community, they leveraged their expertise in agent and mobile banking to service underbanked portions of the population. Similarly, Moroccan banks expanded microfinance operations in francophone west Africa while their subsidiaries introduced a focus on lending to small and medium-sized enterprises. Nigerian banks have been instrumental in increasing the number of branches in west Africa, especially in rural areas.

The pan-African bank phenomenon can also help host countries raise their financial standards. Banks from more advanced African economies use higher home-country standards in their subsidiaries, and host authorities are exposed to more sophisticated reporting and supervisory practices—such as capital standards recommended by the Basel Committee (an international group of bank regulators) and the International Financial Reporting Standards issued by the International Accounting Standards Committee. This peer-to-peer learning effect is further reinforced as host regulators benefit through joint on-site supervisory visits of foreign subsidiaries with home authorities and as they participate in supervisory colleges, which bring together regulators for individual banking groups.

The expansion of pan-African banks also benefits the home country banks because they increase their diversification and improve growth opportunities.

Managing systemic risks

The rise of pan-African banks presents new issues for regulators and supervisors. As networks expand, new channels for transmission of macro-financial risks and other spill-overs across home and host countries emerge. For example, problems at the parent-bank level, such as perceptions of mismanagement or reputational risks, could lead to bank runs on subsidiaries. Similarly, economic or financial problems in host countries could affect the parent bank if a subsidiary's operations are relatively large compared with those of the rest of the group. As pan-African banks



have grown in reach and complexity, supervision gaps have emerged. It is difficult for home country regulators to determine the soundness of a subsidiary or the potential risks it faces without some grasp of the structure and operations of the bank group as a whole. This calls for a consolidated supervisory approach for the entire group led by the home regulator in collaboration with host country regulators. Bank-group-specific supervisory colleges, backed by memorandums of understanding regarding systematic exchange of supervisory information, are important to this effort. The expansion of pan-African banks has produced a network of systemically important banks (see Chart 3)—that is, institutions whose failure could have broad financial consequences—which heightens the need for strong African home country regulatory leadership.

Supervisory capacity is already constrained and underresourced in most of Africa, and cross-border banks put additional pressure on home supervisors to ensure that these groups are adequately supervised. The recent global financial crisis made it clear that cross-border cooperation on supervision and resolution is essential to handling risks to financial stability, and inadequate cross-border cooperation can have serious repercussions. If there is no effective cooperation and planning of cross-border bank resolution, tools employed to resolve cross-border institutions tend to be last-minute, ad-hoc interventions that involve public support. Even long-standing relationships between supervisory authorities can break down in a crisis.

Home and host supervisors' mismatched interests are exacerbated by the considerable difference in the size of institutions and economies and are serious impediments to cross-border cooperation. Some subsidiaries of pan-African banks are systemically important in their host countries, but they may represent only a small portion of the overall operations of the parent banking group. This can have implications for financial stability in host jurisdictions if home authorities or parent institutions take unilateral action—for example, putting restraints on the home country institution to recapitalize a foreign subsidiary (that is, ringfencing). The greater the asymmetry in economic size between home and host, all else equal, the

less likely a financial institution's overall strategy will specifically take into account the host country's needs and the greater the threat to financial stability in the host country if problems emerge at home. In Europe, for example, western European banks cut back lending to eastern Europe during the global financial crisis—a relatively small move in the West with serious implications in the East. The Vienna Initiative in 2009 and 2011 was a response to promote closer coordination to safeguard financial stability and take into account systemic risk concerns in emerging Europe.

Securing the benefits of cross-border banking

To ensure that the gains from African cross-border banking networks are sustained, the pan-African bank phenomenon must include upgraded consolidated supervision buttressed by enhanced cross-border cooperation. International best practices call for a consolidated view of owner operations and risks faced by banking groups, which typically involves establishment of individual supervisory colleges and continuous exchange of information that are outlined in memorandums

Chart 3 Dominant banks The largest pan-African banks have a systemically important presence in about 80 percent of sub-Saharan African countries.

Sources: Bank annual reports; Bankscope database; and IMF staff calculations. Note: A systemically important presence occurs when parent institutions in their home countries or subsidiaries in host countries have more than 10 percent of a banking system's deposits. The banks represented are Attijariwafa, Banque Marocaine de Commerce Extérieur, Ecobank, Groupe Banque Centrale Populaire, Oragroup, Standard Bank, and United Bank for Africa.

No presence Systemically

important presence Non-systemically

important presence

of understanding between regulators and supervisors. This cooperative framework must be established in quiet times rather than when a crisis occurs.

The spread of pan-African banks increases vulnerability to, and the strength of, spillovers of financial problems across African countries. Without understandings on how the problems of a troubled bank would be resolved, supervision alone may have limited effectiveness. Individual regulators may revert to ring-fencing during a crisis, with less than optimal results. The global financial crisis demonstrated that a lack of workable cross-border operational frameworks extracts a high cost—and drove home just how difficult it is to construct those frameworks.

Regulatory and accounting norms across Africa must be upgraded to international standards to improve transparency and foster integration. In pursuing these reforms, international institutions such as the IMF can play a useful role in continuing to provide extensive technical assistance.

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Focusing on middle-class behavior to explain the boom and bust in the United States may be too narrow

Bas Bakker and Joshua Felman

HE conventional narrative about the great recession that began in the United States in 2007 focuses on the housing price boom and bust and the effects on spending by the middle class, most of whose wealth is concentrated in housing.

The rich have been accorded little, if any, part in the spending boom and bust. The well-to-do play a role, but only as generators of "excess saving" (Kumhof, Rancière, and Winant,

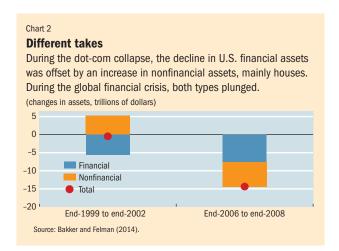


2013). According to that explanation, the spectacular rise in the incomes of the rich that started in the 1980s induced them to lend their increased savings to the hard-pressed middle class, who used the funds to maintain their consumption growth and speculate in real estate (Rajan, 2010).

Initially, all went well, as the real estate boom propelled a construction-based expansion. But by 2007, the music had stopped. The middle class became overextended and ceased buying houses, causing prices to collapse so sharply that many homeowners were suddenly underwater on their mortgages—that is, they owed more to their mortgage lenders than their houses were worth. Some defaulted. Others rapidly increased their saving rates so they could pay down their debts (Mian and Sufi, 2014), curtailing consumption in the process. The result was a deep recession.

But the conventional narrative is incomplete. It was not just the drop in housing wealth that made the Great Recession so deep, but also the decline in financial wealth. Moreover, the rich were not merely passive spectators, but active participants in the consumption cycle. In fact, given the size of their asset holdings, the swings in the spending of the rich were probably a primary motor of the boom and subsequent bust (Bakker and Felman, 2014).

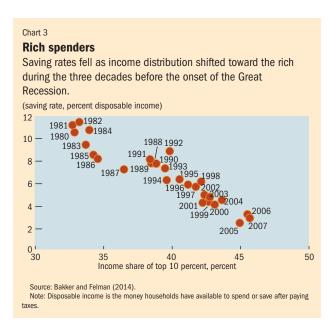
Wealth effects played a key role in the precrisis drop and postcrisis surge in the household saving rate (see Chart 1).

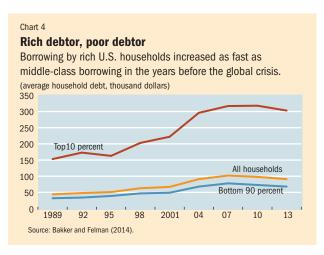


Asset prices soared during the boom years, making people feel wealthier, inducing them to increase consumption and reduce their saving rate. When asset prices collapsed during the crisis, wealth effects went into reverse, leading to a fall in consumption (Case, Quigley, and Shiller, 2011).

Mian and Sufi (2014) have argued that the swings in housing prices were particularly critical, because the acquisition of real estate, unlike the purchase of financial assets, is largely funded by borrowing. Accordingly, declines in housing prices created financial difficulties, forcing households to scale back their spending. They argue that this dynamic explains why the Great Recession was so much more severe than the so-called dot-com bust (the collapse in 2000 of stock prices following a three-year boom driven by Internet companies), even though losses in stock wealth were about the same as those in housing wealth later in the decade.

But the explanation may be much simpler. The dotcom bust was mitigated by an increase in *nonfinancial* assets (mostly housing), while the housing market crash was *exacerbated* by a drop in *financial* assets (see Chart





2). In fact, financial assets accounted for \$8 trillion of the \$13 trillion in peak-to-trough losses in wealth. Put another way, one reason the cutbacks in consumption during the Great Recession were so much deeper than during the dot-com bust was because the *overall* wealth losses were much larger.

Saving rate of the rich

Why did the aggregate household saving rate decline in the precrisis years, even as there was a shift in income distribution toward the presumably high-saving rich? The standard explanation is that the reduction in saving by the middle class was much bigger than the increase in saving by the rich. There are no aggregate data on saving by income class. Nevertheless, the standard explanation is implausible.

If the rich had been saving heavily before the crisis, it is difficult to explain why the correlation between the distribution of income and saving over the past three decades has been strongly *negative*: the greater the income share of the rich, the lower the aggregate saving (see Chart 3). Moreover, in the run-up to the crisis, the debt of the rich actually increased as rapidly as that of the middle class (see Chart 4). This evidence suggests that the saving rate of the rich must have been falling.

But why would the rich have reduced their saving rate at a time when their incomes were rising rapidly? They were responding to the surge in their wealth. The wealth-to-income ratio of the top 10 percent of earners soared from 721 percent in 1994 to 912 percent in 2007. By contrast, the wealth-to-income ratio of the bottom 90 percent increased only moderately in that period, from 373 to 404 percent (see Chart 5). While rising incomes may have encouraged higher saving among the rich, this was more than offset by the impact of the even faster growth in their wealth, which spurred them to spend more and resulted in a lower overall rate of saving relative to income.

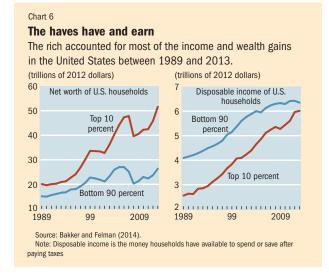
If the saving rate of the rich followed the same cycle as that of the middle class, then the rich must have played a key role in driving the boom and bust in consumption. After all, they comprise the group that accounted for the bulk of the income and wealth gains during this period (see Chart 6).

To demonstrate this empirically, we estimated a consumption model that links household consumption to (1) income of the top 10 percent, (2) income of the bottom 90 percent, and (3) aggregate household wealth. Our estimates show that of every extra dollar in income, the middle class will consume 95 cents, compared with only 65 cents for the rich. That suggests that the rich save a lot more. But the rich also have more wealth. Our estimates suggest that the marginal propensity to consume out of wealth is 2.2 percent, which means that for every extra dollar in wealth, consumption will increase by 2.2 cents. This may not seem a high percentage, but because the wealth of the top 10 percent is so high (\$50 trillion) the impact on consumption is considerable.

Next, we used the model to calculate the role of the rich in driving consumption. We would expect a significant role, simply because their income and wealth gains have been so much larger than those of the middle class.

Indeed, the model suggests something truly striking. The top 10th of earners accounted for the bulk of over-

Surge in wealth Wealth as a percentage of income rose dramatically between 1994 and 2007 for the top 10 percent of U.S. earners. (percent, disposable income, (percent, disposable income, top 10 percent of earners) lowest 90 percent of earners) 950 600 550 - 900 Top 10 percent 500 (right scale) 850 450 800 400 750 700 350 Bottom 90 percent (left scale) 650 1989 92 95 98 2001 04 07 10 13 Source: Bakker and Felman (2014). Note: Disposable income is the money households have available to spend or save after paying taxes.



all consumption growth. Between 2003 and 2013, about 71 percent of the increase in consumption came from the rich. Much of the slowdown in consumption between 2006 and 2009 was the result of a drop in consumption by the rich. And the rich also played a key role in the subse-

Much of the slowdown in consumption between 2006 and 2009 was the result of a drop in consumption by the rich.

quent recovery as the rebound in their wealth encouraged a revival of consumption (though a weak one, because income growth and wealth-income ratios remained below precrisis levels).

Many actors

Our results are not definitive, because there are no firm data on the spending behavior of the rich (or of the middle class, for that matter). Still, the evidence that is available suggests that the standard narrative of the Great Recession needs to be adjusted. Housing played a role, but so did financial assets, which actually accounted for the bulk of the loss in wealth. The middle class played a role, but so did the rich. Indeed, the rich may have accounted for the bulk of the swings in aggregate consumption during the boom and bust. These findings are not just of historical interest. They have important implications for the outlook. The rich now account for such a large share of income—and their wealth is so large—that fluctuations in their assets could shake up the economy more than ever going forward.

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Stymied Reform

John Kiff

VER-THE-COUNTER trading of derivatives—financial instruments that are linked to, among other things, other securities, indices, indicators, commodities, and even other derivatives—caused, or at least exacerbated, the recent global financial crisis, according to one popular but far from universally accepted story line.

But whether or not over-the-counter derivatives were a major culprit in the global crisis, few analysts would disagree that these markets—where the instruments are traded directly between two parties rather than on an exchange—have grown so much in size and importance that they need to be brought into the open and more tightly regulated.

At their 2009 Pittsburgh Summit, leaders of the Group of 20 advanced and emerging market economies (G20) called for a major overhaul of these markets, which was to have been completed by the end of 2012. The reforms are supposed to make derivatives trading safer and more transparent (by enabling authorities and investors to gauge buildups of pressure that could spill out and cause broader financial problems).

But more than two years after the deadline, no jurisdiction has fully implemented any of the reforms, and some countries haven't even started. The reforms backed by the G20 include changing the way each side (collectively called the counterparties) in most derivatives contracts deals with the other. Instead of a purely bilateral relationship, the G20 want one in which a central counterparty is interposed between the two parties in a process called central clearing. The G20 also called for moving over-the-counter trading in many derivatives to exchanges or electronic trading platforms (Internet-based systems for trading financial instruments). For contracts not centrally cleared, G20 leaders proposed higher bank capital requirements.

The reforms have been delayed in many cases because the legislative and regulatory processes required to implement them—including cross-border coordination—turned out to be more complex than anticipated. Some countries are hanging back until Europe and the United States make and mesh their reforms. This article assesses the status of the reform process and the cross-border frictions that have arisen.

Many flavors and risks

Derivatives come in many varieties, depending on what their value is linked to and their structural features. At their most basic, they are contracts, such as forward and futures contracts, that allow a counterparty to buy or sell an asset—wheat, foreign exchange, oil—at a specific price at a certain time to lock in future prices or rates of exchange. But some derivatives are complicated

The move to revamp over-the-counter derivatives markets is progressing, but well behind schedule



Traders at the Chicago Board of Trade, Chicago, United States.

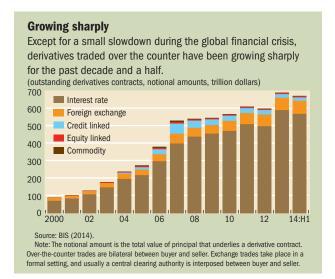
options contracts with numerous, sometimes overlapping and conditional, triggers and outcomes.

Derivatives can play a useful economic role. For example, firms and governments use derivatives called swaps to expand investment and borrowing opportunities and make their revenue and expenditure more predictable. Natural resources firms and farmers can lock in prices with commodity forward contracts. Airlines rely on energy-based derivatives to hedge against fuel price volatility. These types of end-user activities comprise the majority of trading in the almost \$700 trillion market (see chart).

The vast majority of derivatives are traded over the counter (see table) when trading volume is measured by notional amounts outstanding. The notional amount is the value of the principal underlying the derivative contract, which is usually controlled by a much smaller up-front payment that is normally specified as a percentage of the notional amount. The notional amount also reflects the amount and price of assets to be delivered in the case of futures and forward contracts. For example a forward contract that calls for delivery of 10,000 gallons of jet fuel at \$3 a gallon locks in the purchase price at \$30,000 regardless of what happens to fuel prices over the life of the contract. For other types of derivatives, such as swaps, the notional amount is the basis on which interest rates are applied to calculate periodic payment obligations.

In addition to the market risk related to the underlying principal, derivatives users are exposed to counterparty risk—the chance that a counterparty will default when the value of its obligations to the nondefaulting counterparty exceeds the amount the nondefaulter owes it. The value of these obligations changes when the underlying rates, prices, or indices change. For exchange-traded derivatives, the values are directly observable, but in the case of over-the-counter derivatives, which are often not publicly reported, values must be estimated using mathematical models.

Moreover, if two counterparties have several contracts between them, a nondefaulter must continue to honor obligations on its other contracts with the defaulting counterparty.



These risks can be mitigated by covering all transactions with a master agreement that allows for "closeout" netting if one of the counterparties defaults—that is, all contractual payment obligations of the two counterparties end, and the positive and negative values of the contracts offset each other to produce a single net settlement amount.

Counterparty risk can be further reduced by requiring collateral (called margin) to be posted against exposure and residual risk (IMF, 2010), which can vary daily. Margin is usually composed of cash or marketable government bonds.

Central clearing

The regular payments and various risk-management activities during the life of a derivative contract are elements of what is called "clearing." In bilateral contracts, clearing activities occur directly between the two counterparties, and in centrally cleared transactions, specialized financial institutions, called central counterparties, interpose themselves between the counterparties (called clearing members). The contract between the original counterparties is replaced by two new contracts with the central counterparty, which takes on both sides of the transaction.

Central counterparties can improve the safety and efficiency of the financial system. They make things safer by enforcing risk-management best practices—such as daily contract revaluation and required margin posting—and allow for smoother handling of clearing member defaults. In addition, central counterparties enable multilateral netting (as opposed to the bilateral netting described above), which can reduce systemic counterparty risk exposure. If a default occurs, central counterparties can contain market fears of spreading defaults (contagion) by facilitating the transfer of failed clearing member positions and margin funds to solvent clearing members (Gregory, 2014).

The central counterparty's role in contagion containment was a major reason the G20 called for all derivatives contracts with standardized terms and conditions to be cleared centrally rather than bilaterally. Central clearing may also make it easier to report derivatives transactions to trade repositories, which collect and record the details of over-the-counter derivatives trades. (The G20 also called for reporting of over-the-counter derivatives transactions to trade reposito-

Contracts aplenty The global market for derivatives is massive. (notional amount of contracts outstanding, billion dollars, June 30, 2014) Over the Counter **Exchange Traded** 65,624 Interest rate contracts 563 290 Foreign exchange contracts 74,782 379 Credit default swaps 19.462 na Equity-linked contracts 6 941 7.460 Commodity contracts 2,206 na Unallocated 24.811 na 691.492 73.463

Source: BIS (2014)

Note: The notional amount is the total value of principal that underlies a derivative contract. Over-the-counter trades are bilateral between buyer and seller. Exchange trades take place in a formal setting, and usually a central clearing authority is interposed between buyer and seller. The unallocated amount is an estimate by the Bank for International Settlements of positions of dealers not participating in its semiannual survey. ries.) The availability of these records can help regulators and financial stability authorities detect the buildup of dangerous risk exposures and potential ripple effects if a counterparty defaults. The central clearing mandate focuses on standardized contracts, because customized derivatives contracts are difficult for central counterparties to valuate and net against other contracts.

The G20 also called for all contracts with standardized terms and conditions to be traded on exchanges or electronic trading platforms, where appropriate (such as when there is

The reforms are supposed to make derivatives trading safer and more transparent.

sufficient trading volume). The G20 considers that opaque transactions, such as those that involve bilateral trades, make markets less reliable and prone to increased risk, particularly when under stress. Opacity also may make it more difficult to determine the value of transactions, which could affect risk management. Another global body, the Financial Stability Board, which G20 leaders tasked with monitoring the implementation of the reforms, also called for improved risk-management standards, including margin posting, for non–centrally cleared derivatives.

Broadly, the reform process takes place on two levels:

- Global standard setters' overarching frameworks and principles ensure that changes are implemented in an internationally consistent and nondiscriminatory way.
- National authorities put in place the appropriate legislation and regulations.

The global standard-setting process is close to completion, but some of the remaining parts are particularly thorny. For example, risk-management and regulatory principles for central counterparties have been finalized, but rules that define which products are sufficiently standardized to be eligible for mandated central clearing are still in the works. And although most of the global regulatory principles for trade reporting have been established, work continues on standardized identifiers at the counterparty and product levels to ensure a single designation for transactions that are alike.

But progress at the national levels lags on many fronts. The United States has come the farthest. It has implemented almost all regulations for derivatives that come under the regulatory umbrella of the Commodity Futures Trading Commission (CFTC). However, the U.S. implementation process for derivatives regulated by the Securities and Exchange Commission has only recently started. Progress in Europe lags that of the U.S. CFTC because the reform process involves coordination among 28 member countries and their regulators. Moreover, the legislation and regulations that cover the trading platform mandate are part of an all-encompassing overhaul of investment services regulations. Some

other countries are holding back, either to assess the impact of the reforms on their markets or to await the completion of the EU and U.S. processes.

Regulatory inconsistencies and friction between countries have also caused a rockier road than expected. G20 leaders asked country authorities to find ways to defer to each other's regulations, but EU regulators have resisted use of U.S.-based central counterparties by EU counterparties, and U.S. regulators want transactions involving U.S. counterparties to be traded on U.S.-authorized trading platforms.

Still, many of the reforms are rolling out successfully. More than half of all interest rate derivatives and about 40 percent of credit derivatives for which active central counterparties exist are centrally cleared (FSB, 2014a). Almost all over-the-counter interest rate and credit derivatives trades are now reported to trade repositories.

Slow on many fronts

But it has been slow going elsewhere. For example, moving trades to electronic platforms has been slower than moving them to central counterparties, partly because it involves so many new rules. "Where applicable" and "standardized" criteria must still be settled at the global standard-setting level. Legal barriers to reporting and information sharing exist in a number of jurisdictions. These include privacy and bank secrecy laws and data protection regimes. And a proliferation of trade repositories may make it difficult to obtain an aggregate view of the market and its interconnections. This difficulty generated calls for more reporting standardization and a centralized data hub to bring together in one place the data from the two dozen or so currently authorized trade repositories (FSB, 2014b).

Authorities must look beyond national interests if they want to keep global financial stability risk in check. Success depends on countries' deferral to each other's regulations if they achieve similar outcomes, as well as compromise, including on privacy and on other laws that thwart cross-border information sharing.

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What Is Capitalism?

Free markets may not be perfect but they are probably the best way to organize an economy

Sarwat Jahan and Ahmed Saber Mahmud

APITALISM is often thought of as an economic system in which private actors own and control property in accord with their interests, and demand and supply freely set prices in markets in a way that can serve the best interests of society.

The essential feature of capitalism is the motive to make a profit. As Adam Smith, the 18th century philosopher and father of modern economics, said: "It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest." Both parties to a voluntary exchange transaction have their own interest in the outcome, but neither can obtain what he or she wants without addressing what the other wants. It is this rational self-interest that can lead to economic prosperity.

In a capitalist economy, capital assets—such as factories, mines, and railroads—can be privately owned and controlled, labor is purchased for money wages, capital gains accrue to private owners, and prices allocate capital and labor between competing uses (see "Supply and Demand" in the June 2010 F&D).

Although some form of capitalism is the basis for nearly all economies today, for much of the last century it was but one of two major approaches to economic organization. In the other, *socialism*, the state owns the means of production, and state-owned enterprises seek to maximize social good rather than profits.

Pillars of capitalism

Capitalism is founded on the following pillars:

- private property, which allows people to own tangible assets such as land and houses and intangible assets such as stocks and bonds;
- self-interest, through which people act in pursuit of their own good, without regard for sociopolitical pressure. Nonetheless, these uncoordinated individuals end up benefiting society as if, in the words of Smith's 1776 Wealth of Nations, they were guided by an invisible hand;
- *competition*, through firms' freedom to enter and exit markets, maximizes social welfare, that is, the joint welfare of both producers and consumers;

- a market mechanism that determines prices in a decentralized manner through interactions between buyers and sellers—prices, in return, allocate resources, which naturally seek the highest reward, not only for goods and services but for wages as well;
- freedom to choose with respect to consumption, production, and investment—dissatisfied customers can buy different products, investors can pursue more lucrative ventures, workers can leave their jobs for better pay; and
- *limited role of government*, to protect the rights of private citizens and maintain an orderly environment that facilitates proper functioning of markets.

The extent to which these pillars operate distinguishes various forms of capitalism. In free markets, also called lais-sez-faire economies, markets operate with little or no regulation. In *mixed economies*, so called because of the blend of markets and government, markets play a dominant role, but are regulated to a greater extent by government to correct market failures, such as pollution and traffic congestion; promote social welfare; and for other reasons, such as defense and public safety. Mixed capitalist economies predominate today.

The many shades of capitalism

Economists classify capitalism into different groups using various criteria. Capitalism, for example, can be simply sliced into two types, based on how production is organized. In *liberal market economies*, the competitive market is prevalent and the bulk of the production process takes place in a decentralized manner akin to the free-market capitalism seen in the United States and the United Kingdom. *Coordinated market economies*, on the other hand, exchange private information through non–market institutions such as unions and business associations—as in Germany and Japan (Hall and Soskice, 2001).

More recently, economists have identified four types of capitalism distinguished according to the role of entrepreneurship (the process of starting businesses) in driving innovation and the institutional setting in which new ideas are put into place to spur economic growth (Baumol, Litan, and Schramm, 2007).

In *state-guided capitalism*, the government decides which sectors will grow. Initially motivated by a desire to foster growth, this type of capitalism has several pitfalls: excessive investment, picking the wrong winners, susceptibility to corruption, and difficulty withdrawing support when it is no longer appropriate. *Oligarchic capitalism* is oriented toward protecting and enriching a very narrow fraction of the population. Economic growth is not a central objective, and countries with this variety have a great deal of inequality and corruption.

Big-firm capitalism takes advantage of economies of scale. This type is important for mass production of products. Entrepreneurial capitalism produces breakthroughs like the automobile, telephone, and computer. These innovations are usually the product of individuals and new firms. However, it takes big firms to mass-produce and market new products, so a mix of big-firm and entrepreneurial capitalism seems best. This is the kind that characterizes the United States more than any other country.

The Keynesian critique

During the Great Depression of the 1930s, the advanced capitalist economies suffered widespread unemployment. In his 1936 General Theory of Employment, Interest, and Money, British economist John Maynard Keynes argued that capitalism struggles to recover from slowdowns in investment because a capitalist economy can remain indefinitely in equilibrium with high unemployment and no growth. Keynesian economics challenged the notion that laissez-faire capitalist economies could operate well on their own without state intervention to promote aggregate demand and fight high unemployment and deflation of the sort seen during the 1930s. He postulated that government intervention (by cutting taxes and increasing government spending) was needed to pull the economy out of the recession (see "What Is Keynesian Economics?" in the September 2014 F&D). These actions sought to temper the boom and bust of the business cycle and to help capitalism recover following the Great Depression. Keynes never intended to replace the market-based economy with a different one; he asserted only that periodic government intervention was necessary.

The forces that generally lead to the success of capitalism can also usher in its failure. Free markets can flourish only when governments set the rules that govern them—such as laws that ensure property rights—and support markets with proper infrastructure, such as roads and highways to move goods and people. Governments, however, may be influenced by organized private interests that try to leverage the power of regulations to protect their economic position at the expense of the public interest—for example, by repressing the same free market that bred their success.

Thus, according to Rajan and Zingales (2003), society must "save capitalism from the capitalists"—that is, take appropriate steps to protect the free market from powerful private interests that seek to impede its efficient functioning.

The concentration of ownership of productive assets must be limited to ensure competition. And, because competition begets winners and losers, losers must be compensated. Free trade and strong competitive pressure on incumbent firms will also keep powerful interests at bay. The public needs to

The forces that generally lead to the success of capitalism can also usher in its failure.

see the virtues of free markets and oppose government intervention in the market to protect powerful incumbents at the expense of overall economic prosperity.

Economic growth under capitalism may have far surpassed that of other economic systems, but inequality remains one of its most controversial attributes. Do the dynamics of private capital accumulation inevitably lead to the concentration of wealth in fewer hands, or do the balancing forces of growth, competition, and technological progress reduce inequality? Economists have taken various approaches to finding the driver of economic inequality. The most recent study analyzes a unique collection of data going back to the 18th century to uncover key economic and social patterns (Piketty, 2014). It finds that in contemporary market economies, the rate of return on investment frequently outstrips overall growth. With compounding, if that discrepancy persists, the wealth held by owners of capital will increase far more rapidly than other kinds of earnings (wages, for example), eventually outstripping them by a wide margin. Although this study has as many critics as admirers, it has added to the debate on wealth distribution in capitalism and reinforced the belief among many that a capitalist economy must be steered in the right direction by government policies and the general public to ensure that Smith's invisible hand continues to work in society's favor.

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By increasing spending on infrastructure, Germany will help not only itself, but the entire euro area

Selim Elekdag and Dirk Muir

HE economic recovery in the euro area is slow and tentative, and growth in even the strongest economy, Germany, seems to have lost some momentum in recent years. Moreover, estimates of German growth potential are low—and could go lower because of a rapidly aging population.

But there is a way to mitigate growth problems in Germany and, by extension, throughout the euro area. Increased German public investment in infrastructure, such as highways and bridges, would not only stimulate near-term domestic demand, but would also increase productivity and raise domestic output over the longer run and generate beneficial spillovers across the rest of the euro area.

Although Germany's public infrastructure is not widely seen as deficient, it has in fact been neglected for some time, especially in the transportation area, where pressing needs,



such as aging roads, have been clearly identified. Germany's public investment in infrastructure is in the bottom quarter of the 34 advanced and emerging market economies of the Organisation for Economic Co-operation and Development. In fact, net public investment has been negligible since 2003: the average ratio of net government investment to net domestic product over the past decade is –0.1 percent, which is associated with deterioration in the public capital stock (see Chart 1). Greater infrastructure investment would likely significantly expand German potential output—that is, the largest GDP an economy can produce sustainably. For example, better infrastructure would ease the movement of goods used and produced by firms.

Spillovers from Germany

We used the IMF's Global Integrated Monetary and Fiscal model (see box) to try to quantify the domestic effects and spillovers to other countries that would accompany increased German infrastructure investment (Elekdag and Muir, 2014). Our adaptation of the model combines four broad features:

- households that optimize consumption and saving, given their planning horizons;
 - a productive public stock of infrastructure;
 - a clear role for monetary policy; and
- a multicountry framework, under which the world is grouped into six regions: Germany; Greece, Ireland, Italy, Portugal, and Spain (the Euro Five), which until recently had high external funding costs; the remaining euro area economies; emerging Asia; the United States; and the rest of the world.

German spillovers to the rest of the euro area are transmitted in two main ways; via the *trade channel* and the *real exchange rate channel*. The trade channel comes into play when higher government spending in Germany causes

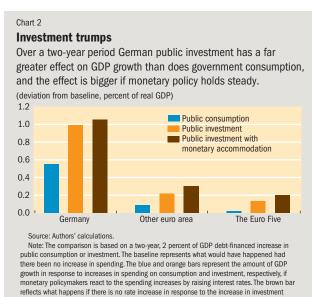
the nation's economic output to grow, which increases German demand for imports from its trading partners. The real exchange rate channel is at work when an increase in German government spending leads to higher German inflation. Given that the euro area has a common currency, one member's real exchange rate appreciates if it has higher inflation than the other members. In this case, the German real exchange rate appreciates, leading to greater German demand for imports.

Spillovers are also influenced by monetary policy, which can dampen or enhance the effects of the trade and real exchange rate channels. A rising inflation rate in Germany would induce the European Central Bank (ECB) to increase interest rates in Germany and the rest of the euro area. This would dampen domestic demand across the euro area, but would also cause appreciation of the euro and depress euro area exports. The monetary tightening could reduce or even overwhelm the trade and exchange rate channels and leave real, or after-inflation, GDP weaker in the euro area. But if instead monetary policy accommodated the rising German inflation and left interest rates unchanged, the result would be relatively stronger spillovers. Unchanged rates would mean higher inflation and even lower real (after-inflation) interest rates, which would boost domestic demand and lead to real exchange rate depreciation in the euro area-and stronger net exports.

Increasing government spending

There are many types of fiscal stimulus, such as tax cuts and increases in infrastructure investment or general expenditures. Spillovers vary depending on the type of stimulus. Government investment in infrastructure would be more beneficial than a general increase in government spending.

Chart 2 compares the effects in the second year of public spending on general goods and services with the effects of investment in infrastructure. If public spending is increased



spending (monetary accommodation). The Euro Five consists of Greece, Ireland, Italy, Portugal

by 1 percent of GDP for two years, financed by a higher government deficit, the model predicts the following:

When the government boosts spending on general goods and services there is a temporary increase in real GDP of just over 0.5 percent in Germany. There are virtually no spillovers to the Euro Five economies, but there is a tiny, 0.1 percent of GDP, increase in the other euro area countries (including such major German trading partners as Belgium, France, and the Netherlands). More government consumption increases aggregate demand, yielding a positive output gap (the difference between what a country is producing and can produce efficiently) and higher domestic and regional inflation rates. Interest rates increase as monetary policy tightens in response to higher inflation pressure across the currency union. Although the extent and timing differ across the region, higher real interest rates—because of Germany's higher domestic inflation relative to the rest of the euro area—drive up the German real exchange rate,

A look at the model

The Global Integrated Monetary and Fiscal model (GIMF) is widely used at the IMF as a framework for analyzing the short- and long-term effects of fiscal (taxing and spending) issues, as outlined in Anderson and others (2013). The GIMF is constructed to permit researchers to analyze how government investment in infrastructure can affect the productivity of the domestic economy. We extended it to also allow for delays between the time an infrastructure project is approved and when it is fully operational and paid for.

The multicountry structure of the GIMF allows economists to analyze global interdependence and spillover effects. In this model, the world consists of Germany; Greece, Ireland, Italy, Portugal, and Spain; the rest of the euro area; emerging Asia; the United States; and the rest of the world. There are two major sources of international linkages. First, there is full accounting of trade between each region. Second, the flow of goods allows the model to determine current accounts, which are simply the flows of global saving and investment. Each region has

- Two types of households—"liquidity-constrained" households, which have no savings and consume only out of their current income, and "optimizing" households, which can save and choose how many hours to work and their level of consumption. These households are assumed to plan for a 20-year horizon on average. Households perceive government debt as wealth; there is no concern about saving for future generations.
- Firms that are forward looking—but plan only for the next 20 years.
- Monetary policy that pursues price stability through short-term control of the policy interest rate—The European Central Bank conducts monetary policy across the euro area. All other regions also pursue price stability through independent central banks.
- A government that targets a certain level of debt in the long run—although it tries to stabilize the economy during the business cycle by allowing the deficit to fall when GDP growth is strong and vice versa.

which offsets the benefits of the stimulus on domestic activity and weakens the associated spillovers. Consequently, the German current account worsens, while those of its trading partners in the euro area improve slightly. The current

The current low-interest-rate environment presents a window of opportunity for Germany.

account is a measure of a country's economic relationship with the rest of the world—exports minus imports plus net income and net transfers.

When the government spends on public investment, things are different. It holds the most promise for a durable rise in real GDP. Increased public investment improves national infrastructure, which firms can then exploit to reduce costs, such as for transportation, and improve market access at home and abroad. Firms are therefore more productive and sell their goods for lower prices. This increases demand for their goods, which in turn means more domestic demand for labor and investment, contributing to a persistent rise in real GDP—which peaks at 1 percent of GDP. Spillovers are also larger—almost 0.2 percent for the Euro Five economies and almost 0.3 percent for the rest of the euro area. Because of the long-term change in the stock of German infrastructure, these domestic gains and spillovers last well past the second year.

Monetary policy plays an important role here too, because it covers the entire euro area. Typically, monetary policy works to offset the inflation pressure associated with increased government spending, meaning higher interest rates that would

Chart 3 **Delayed impact** When an investment project takes several years to complete, the short-term increase in real GDP takes longer than for a one-year project, but the long-term gains are the same. (rise in real GDP, percent) (rise in real GDP, percent) 1.0 Euro area minus Germany Germany 0.8 0.3 0.6 0.2 0.4 0.1 -0.2 0 1 2 3 4 5 6 7 8 9 10 0 1 2 3 4 5 6 7 8 9 10 Years from investment approval Years from investment approval Baseline Implementation delays Implementation delays with monetary accommodation Source: Authors' calculations Note: Lines reflect a baseline two-year, 1 percent of GDP a year debt-financed increase in public investment, and changes when there is monetary accommodation (the central bank does not raise interest rates) and when there is a three-year delay in implementation of the investment.

reduce the gains in real GDP and spillovers. However, because Germany accounts for about one quarter of the total euro area economy, the ECB is likely to raise interest rates only about 25 percent as much as a German central bank would raise them—if there were a German central bank. So spillovers and domestic effects are higher than they would be if each euro area country had its own monetary policy.

There are more gains to be made if the ECB does not react to the inflation pressure for the two years of the fiscal stimulus. Accommodation would allow for stronger real GDP growth (1.1 percent versus 1.0 percent) and an additional 0.1 percent of real GDP spillover to the rest of the euro area. The lower interest rates allow for higher inflation, which further drives down the real interest rate and leads to greater stimulus from domestic investment and consumption.

These results assume that infrastructure projects are approved, built, and operational within the very tight time frame of one year. In a more realistic case of implementation delays—in which a project is approved in the first year, but spending continues over three years and the infrastructure becomes active in the fourth year—the eventual rise in real GDP is postponed (see Chart 3). Because of the lagged completion (and the delayed productivity benefits for the economy), increases in private investment and employment also stall. Domestic output could contract for a while, with some adverse regional spillovers. Nevertheless, the longer-term output gains characterized by higher public investment are the same. A by-product of implementation delays is deferred and somewhat smoother deficit spending, which implies less of an annual budgetary burden in the short run.

Monetary policy can augment real GDP gains in this case. There is still enough stimulus that the ECB continues to raise interest rates. If, however, the ECB does not raise rates, inflation would rise across the euro area, yielding negative real interest rates, which would lead to further increases in consumption and investment in the entire euro area.

The current low-interest-rate environment presents a window of opportunity for Germany to finance higher investment at historically favorable rates, which will have good short- and long-term effects not only on Germany but on all of Europe.

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Spaniard Vanessa Tuduri taking a break on the grounds of the University of Barcelona, which she used to attend.

HELP WANTED

When a young person is jobless, it also damages family, community, and country

Hyun-Sung Khang

ANESSA Tuduri was a 20-year-old student when the global financial crisis hit and her mother, who was helping pay for her studies, told her she would have to look elsewhere for financial support. Tuduri dropped out of university and joined the swelling ranks of young Spaniards looking for a job.

"We had dreams to grasp for, we wanted to eat the world up, we thought we would have everything, and then we were punched in the face by the crisis," she says.

At its peak in mid-2013, youth unemployment in Spain exceeded 56 percent, according to the European Commission. Although

the country's economy has recently experienced an uptick, youth unemployment has a long tail, and its effects will be felt for decades—not only by the individuals, but also by the societies in which they live.

The scale may be exceptional in Spain, but the phenomenon of high youth unemployment is found in every region, from the serried ranks of the young jobless in the resource-rich Middle East, through the less mobile, less skilled youth in rural sub-Saharan Africa, to the overqualified, underemployed young in low-end service jobs in crisis-hit Europe.

According to the International Labour Organization (ILO), in 2014 more than

73 million people between the ages of 15 and 24 were searching for work—14 percent of the age group, globally, from a low of 12.4 percent in 2007. The figure of over 70 million does not include groups such as discouraged workers, who have given up the job hunt—some estimate the true number to be up to three times higher.

Why worry?

Unemployment can be destructive to anyone's sense of identity and morale, but its effect on young people can be more pronounced, more pernicious, and more enduring.

"For young people starting out in the labor market for the first time, you would ideally want people to go from education straight into a job. The trouble with youth unemployment is that the young tend to be at the margins of hiring and firing," says John Wadsworth, of the London School of Economics. When a firm decides to expand its workforce, it typically hires young recruits, but when it shrinks its workforce, it tends to fire them first.

As well as being at the sharp end of an economic slump, the young who enter the job market during a downturn can suffer effects that endure for decades. Research on young people who experienced long-term unemployment in the recession of the 1980s suggests that even now, in their 40s or 50s, they are more likely to be unemployed and—of those who have jobs—tend to be lower paid than their counterparts who didn't suffer an extended bout of joblessness.

"That means that when they retire, their pensions are going to be lower. It's an effect that affects the whole of their life," says Richard Exell, of the Trades Union Congress in London.

Long-term prospects for the young can also be blighted when they must accept jobs for which they are overqualified. Henry Rivera Angulo, 20—who is originally from Ecuador but spent most of his formative years in Spain—began his job hunt two years ago with a high school education. He visited Barcelona Activa, a local government-backed agency with a mandate to attract businesses and jobs to the city, hoping for help with his job search. But, he concluded, "I saw that I was not the only one, that there were many people who are better qualified than I am, working as waiters."

Hit first, and hardest

The causes of youth joblessness are varied, but some are common to all regions. Key among them is growth. In a contracting economy, the young are hit first and hardest: they are often the first to be fired. Once jobless, they can lack sufficient experience, skills, and networks to find alternative employment.

In any single country, youth unemployment is typically double the level of general unemployment. The two statistics often move in tandem—and they are both overwhelmingly determined by economic growth, says Wadsworth.

"There is no way you can get any progress on youth unemployment, or unemployment in general, without having growth. All the evidence suggests that you need growth rates of over 2 percent before you make any inroads into unemployment," says Wadsworth of the U.K. employment situation.

"Spain doesn't have a youth unemployment problem, it has a general unemployment problem," says Pau Serracant

In a contracting economy, the young are hit first and hardest.

of the Universitat Autònoma de Barcelona in Spain. Tackling growth is the essential first step to resolving the unemployment problem, he believes.

Low growth, or even a contracting economy may be the single most important cause of high youth unemployment, but growth alone doesn't tell the whole story. In the United Kingdom, for example, young jobless numbers were rising even before the financial crisis. While those figures are now coming down, the length of time out of work is growing. In most Organisation for Economic Co-operation and



Henry Rivera Angulo and his girlfriend, Elizabet de Miguel Rodriguez, are among the millions of young job seekers in Spain.

Development countries, more than a third of young job seekers have been unemployed at least six months.

Ann-Marie Taylor, from London, is one of the long-term unemployed. Now 23 years old, she has been job hunting on and off without success since she left school at age 16, living on benefits of about \$85 a week and struggling with the stigma of being on welfare. "It's really depressing, and your morale and motivation goes completely downhill, especially if you are on Jobseeker's Allowance, you get this stereotype . . . and you have to find the strength every single day to get out of bed."

Young people with few qualifications face the bleakest job prospects, and without additional accumulated experience and qualifications, Taylor is now competing with younger job applicants for the same positions. "If I was just leaving school, I would seriously rethink everything . . . because you have to be dead set on what you want to do," she says.

Skills mismatch?

If low growth is the primary cause of youth unemployment, many economists think a mismatch between the skills employers and businesses need and those young people learn in the education system is also an important factor. Many employers complain that they cannot get the qualified people they need to fill vacancies.

"Employers are essentially correct: they haven't been getting the skills that they want, either in quantity or quality," says Anthony Carnevale, formerly chairman of the National Commission on Employment Policy under U.S. President Bill Clinton. He believes that the education systems in the United States and in many other advanced economies have failed to keep up with the requirements of today's workforce.

But others, such as Exell, dispute whether there is a skills mismatch. He points out that young people have never been so qualified—for example, in countries such as the United Kingdom, record numbers are pursuing higher education.

He acknowledges that the rising number of graduates calls for an "in it to win it" lottery-type attitude to higher education—now a necessary first step to meaningful employment. But Exell doesn't think that the education system should be responsible for mass-producing work-ready employees.

"Too many employers in our view now regard themselves as consumers of education and training and have forgotten, if they ever knew, that they have responsibilities and duties in educating workers," he says.

The positions of Exell and Carnevale may not be as contradictory as they first appear. "Skills mismatch on youth labor markets has become a persistent and growing trend. Over-education and over-skilling coexist with under-



Rivera, originally from Ecuador, is considering returning to his native country with his girlfriend, de Miguel.

education and under-skilling, and increasingly with skills obsolescence brought about by long-term unemployment," the ILO has noted.

Labor market rigidities

A third major cause of high youth unemployment is labor market rigidities (see "Jobless in Europe" in the March 2015 $F \not\sim D$), such as highly regulated labor markets with heavy taxes on labor or high minimum wages.

In South Africa, for example, which suffers one of the highest rates of youth unemployment in sub-Saharan Africa, businesses consistently rate their country's labor laws as burdensome and compliance as costly. A research project from the Poverty Lab at the Massachusetts Institute of Technology suggests that objectively labor laws in that country may be no more onerous than in other countries of a similar income level. But the perception alone deters firms from hiring new employees, especially those with "riskier" profiles—which includes younger or less experienced workers.

One labor market rigidity that has disproportionately hit the young is their employment in short-term, temporary, or unstable work. In developing economies—home to a majority of the global youth population—this translates into irregular, informal employment in the absence of stable, quality jobs.

And in Europe the young are three times more likely to be employed on a temporary contract than are adult workers. In crisis-hit European countries, the difference is even greater. Often these contracts are designed to give a job seeker at least a chance to work. But the perverse, unintended effect of such contracts can be to confine workers to these selfsame short-term temporary jobs with low pay and few opportunities for training or career progression. The rigidity comes from the disparity between workers on permanent contracts with full benefits—often older workers—and those under temporary contracts with few, if any, protections.

Tuduri, the young Spaniard, eventually found work through an agency—a part-time, temporary job in one of Barcelona's world-class museums, but her shifts are irregular

"Too many employers in our view now regard themselves as consumers of education."

and unguaranteed. Although the job gives her the opportunity to use her language skills and meet people from all over the world, she and her peers yearn for greater stability.

"I am an adult, and I need the opportunities that the adults have, not to be kicked around whenever the companies need you, and then [they say] 'OK, we don't need you, you can go home, we will call you, maybe."

In the United Kingdom, these casual or "zero-hour contracts" have become a contentious political issue because they don't guarantee a minimum number of hours and can leave people not knowing when or whether they will work. Richard Hughes of the YMCA in London, which advocates



Ann-Marie Taylor searches through job listings in a café in London, United Kingdom.

for young people, says zero-hour contracts are extremely disruptive. He points to the example of a young woman, Chloe, who decided to forgo unemployment benefits to take a zero-hour contract as an end-of-life caregiver. Under this contract, she can in theory work between zero and 35 hours a week. Given the volatility of her wages, she is unable to pay rent and has resorted to couch surfing with friends.

"So essentially, she is in a situation where she has made herself homeless by taking work," says Hughes.

Adulthood postponed

Against a backdrop of poor or nonexistent job prospects, for many young people the opportunity to strike out on their own, marry, and set up their own household is sharply curtailed. Lacking financial freedom, many have moved back home and must survive with support from parents. For this boomerang generation, adulthood has been postponed indefinitely. This trend was previously far more prevalent in countries with weak welfare systems, but with bulging national deficits and reduced welfare payments, the practice is spreading to countries where unemployed youth were traditionally cushioned by benefits, says Serracant.

"What many young people have to do in England is rely on their family more than they used to do previously. It seems that the Spanish model or the southern European model is growing in Europe," he says.

In addition to the obvious stresses and frustrations of joblessness, long-term unemployment has also been linked to lower life expectancy, increased likelihood of heart attack later in life, and more suicide and mental illness.

Some see the scale of youth joblessness and wasted human capacity as a social emergency. Absent sufficient opportunities, in regions such as sub-Saharan Africa, which have a large young population, the youth bulge can start to look more like



youth unemployment in the Middle East and North Africa.

Rather than endure dimming prospects, many young people have voted with their feet. The search for a better life on distant shores is as old as human history. The United Nations estimates that one in eight migrants is between 15 and 24 years old. Since the global downturn, the crisishit euro area countries have seen a steady exodus of young people to other parts of

Europe, resulting in a loss of valuable skills and the departure of some of the brightest, most qualified, and most motivated in the population. In a borderless Europe, the numbers are difficult to pin down because much of the travel by young Europeans is undocumented.

The ranks of young Spaniards going abroad have been joined by hundreds of thousands of migrants returning to their countries of origin, reversing a decade-long swelling of Spain's population. Thirteen years ago, when Rivera emigrated with his family from their native Ecuador, Spain seemed a beacon of hope, drawing Latin Americans to

"If I was just leaving school, I would seriously rethink everything," says Taylor.

the country. Now Rivera is considering a return to South America, this time with his 19-year-old Spanish girlfriend, Elizabet de Miguel Rodriguez, another job seeker.

"If I can't find a job, I will try to do something elsewhere since I can't achieve much here," says de Miguel.

Rivera adds, "I am pessimistic. Given how things are, something dramatic needs to happen for the situation to change. I really doubt we'll go back to how we used to be, happy."

Hyun-Sung Khang is a Senior Editor on the staff of Finance & Development.

FOUR YEARS after the SPRING

Adnan Mazarei and Tokhir Mirzoev

OUR years ago, millions of Arab people filled the streets demanding political, social, and economic justice. It caught everyone by surprise. The Arab Spring unveiled significant economic weaknesses previously masked by years of economic and political stability. Underneath, despite seemingly improving poverty and inequality indicators and some progress with structural reforms, high unemployment, poor living conditions, and lack of economic opportunity had stirred a pot of frustration and dissatisfaction throughout most of the Arab world.

The Arab Spring made it clear that the economic framework and institutions in the Arab countries in transition (a term used by the international community to include Egypt, Jordan, Libya, Morocco, Tunisia, and Yemen) needed to change. Since then, there has been some progress, but the core structural weaknesses in these countries' economic frameworks have yet to be addressed. Although the region is now hostage to a

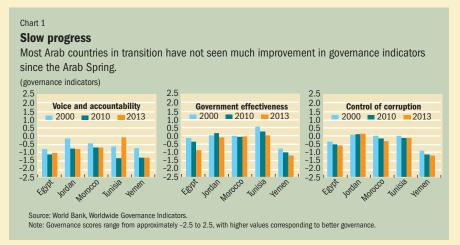
number of conflicts, it is important to start chipping away at the task ahead.

Isolation and fragmentation

A key weakness of the Middle East and North Africa (MENA) region, including the Arab countries in transition, has been its relative isolation from the global economy and fragmentation as a region due to high barriers to trade and monopolistic markets. The MENA region holds less than 1 percent of the world market share in nonfuel exports—far below east Asia's 10 percent and Latin America's 4 percent—and less than a tenth of these exports are destined to stay in the region (Malik and Awadallah, 2013). Such seclusion in this age of globalization has meant slow economic modernization, limited transfer of technology, and, ultimately, low competitiveness and productivity.

Despite increased economic liberalization, the legacy of the economic development models of the 1960s and 1970s, which favored a large role for the state, lingered in various forms. Large and inefficient public enterprises Despite progress, the Arab countries in transition still must correct some fundamental weaknesses in their economies





and bloated civil services stifled the development of the private sector. More important, countries could not provide their people with adequate services despite their large public sectors. According to the United Nations Development Programme's index of "multi-dimensional poverty," well over a third of the people in these countries lacked access to health care, education, and other basic services such as sanitation, clean water, and electricity—trailing most of the rest of the world. By contrast, 26 percent of people in developing Asia and about 8 percent in Latin America lacked these basic services (IMF, 2014a).

Social protection before the Spring was inadequate. As in most of the MENA region, in the Arab countries in transition generalized price subsidies were part of the social contract between the government and the people. These subsidies, however, did not always go where they were most needed: for example, in Egypt in 2008 the poorest 40 percent of the population received only 3 percent of gasoline subsidies

Each country must develop its own vision and path to reform.

(Sdralevich and others, 2014). In many other countries, the share of public resources devoted to subsidies was among the highest in the world, which prevented more productive uses, such as investment in education and vocational training for the young—and left the poor vulnerable.

More generally, governance in the Arab countries in transition was weak, and mostly deteriorated in the decade before the Arab Spring (see Chart 1). Combined with the factors mentioned above, the weak institutional framework opened the door for corruption and shaped an economic environment that stifled competition and discouraged job creation in the private sector. This deprived millions of young and talented people of economic opportunity and jobs.

As a result, unemployment in these countries remained among the highest in the world, particularly for women and young people, of whom one in four was jobless. Similarly, access to finance was among the lowest worldwide. For example, less than 4 percent of the region's population was able to obtain a loan from a financial institution in 2010. This was less than half of the world average and comparable only to sub-Saharan Africa.

During the years leading up to the Arab Spring, the disconnect between macroeconomic indicators and a sense of well-being at the household level widened. According to Gallup, a 34 percent increase in GDP per capita in Egypt between 2005 and 2010 coincided with a sharp decline in the number of people who said they were "thriving," from almost one-

third of the population to 12 percent (Clifton and Morales, 2011). In Tunisia, the drop was 10 percentage points, to a dismal 14 percent, between 2008 and 2010.

New visions

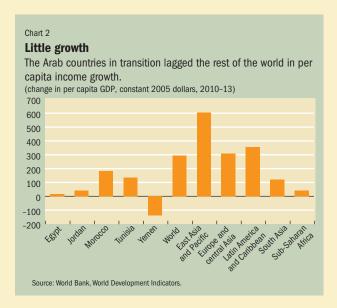
How have these economies performed since the onset of the Arab Spring? Are there new visions for economic institutions and policies?

The movement started when the world had not yet recovered from the global financial crisis. This unfavorable external environment, combined with domestic economic dislocations, social tensions, and—more recently—spreading conflicts in the region, has dampened economic performance, reduced trade and investment, and heightened vulnerability.

Despite a shaky start, these countries have maintained macroeconomic stability and avoided economic crises that could have hurt their most vulnerable citizens. At first, this was achieved at the cost of depleting foreign exchange reserve buffers and accumulating public debt via widening deficits, notably in Egypt and Jordan. Subsequently, with greater domestic political stability and external aid, most countries have gradually rebuilt their external reserve buffers and begun to reduce their budget deficits. These early achievements helped countries maintain positive economic growth. The recent conflicts in Libya and Yemen could, however, derail progress and set those countries back many years.

The Arab countries in transition have made some—albeit uneven—progress with structural reforms. Energy subsidies were significantly reduced in Egypt, Jordan, Morocco, and Yemen, making way for spending on better-targeted social protection and on growth-enhancing public investment. Governments have also taken steps to improve aspects of the business climate, such as competition, bankruptcy, and investment regulations; strengthen tax policies and administration; and implement financial sector reform. And plans are in the works to stimulate job creation and reduce skills mismatches in the labor market—which has led to some improvement in business climate indicators.

These are steps in the right direction, but it will take more than this to fundamentally change the structural deficiencies of these transition economies. Specifically, dependence





on the public sector is still high, and the private sector is still reluctant to invest and create jobs. Governance continues to present a significant concern. Well-targeted social safety nets are not yet in place, and access to basic services remains inadequate. Consequently, economic outcomes at the household level have not improved, and in some cases have worsened since 2011.

- Unemployment rose in most countries, fueled by still-insufficient economic growth. It remains most troublesome among the young—ranging from 20 percent in Morocco to 37 percent in Tunisia—and women. Labor force participation and the employment-to-population ratio declined further, pointing to growing frustration among job seekers.
- Average per capita income remained flat in Egypt and Jordan (excluding Syrian refugees) and rose only slightly in Tunisia and Morocco. Overall, income growth in the Arab countries in transition trailed most of the world (see Chart 2).

• Individual well-being remained poor. In the latest Gallup-Healthways poll these countries, except Morocco, had the lowest percentage of respondents characterizing themselves as thriving in "purpose"—a measure of people's motivation to achieve their goals—a strong indication of constrained economic opportunity (Gallup-Healthways, 2014). The percentage of respondents thriving in several dimensions of well-being was similarly low. Most important, most respondents in Egypt, Jordan, and Tunisia said they were not thriving in any dimension of well-being (see Chart 3).

These outcomes point to persistent, if not growing, challenges. These sources of distress will likely continue to fuel social discontent and could significantly undermine public sector reforms and the private sector's response to them.

A difficult path

Escaping the pre-2011 legacy is critical for the success of the Arab countries in transition. They must speed up and intensify structural reforms to maintain macroeconomic stability and achieve high, sustainable, and inclusive growth. The structural weaknesses that caused the divide between general macroeconomic indicators and living conditions in these countries cannot be ignored. In all countries, this will involve ambitious governance reforms, building an enabling favorable business environment, moving from state-dominated to private investment, increasing access to finance, implementing labor market and education reforms to stimulate employment, forming efficient social safety nets to protect the vulnerable, and reducing trade barriers to smooth integration into the world economy (IMF, 2014b).

Each country must develop its own vision and path to reform. The task will be even more difficult than before the Arab Spring. Governments have limited financial resources, and the external environment is overshadowed by conflicts in the region and little appetite for investment, despite the relief offered by lower international oil prices. Overcoming past resistance to reform calls for political will and determination, and strong support from the international community.

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