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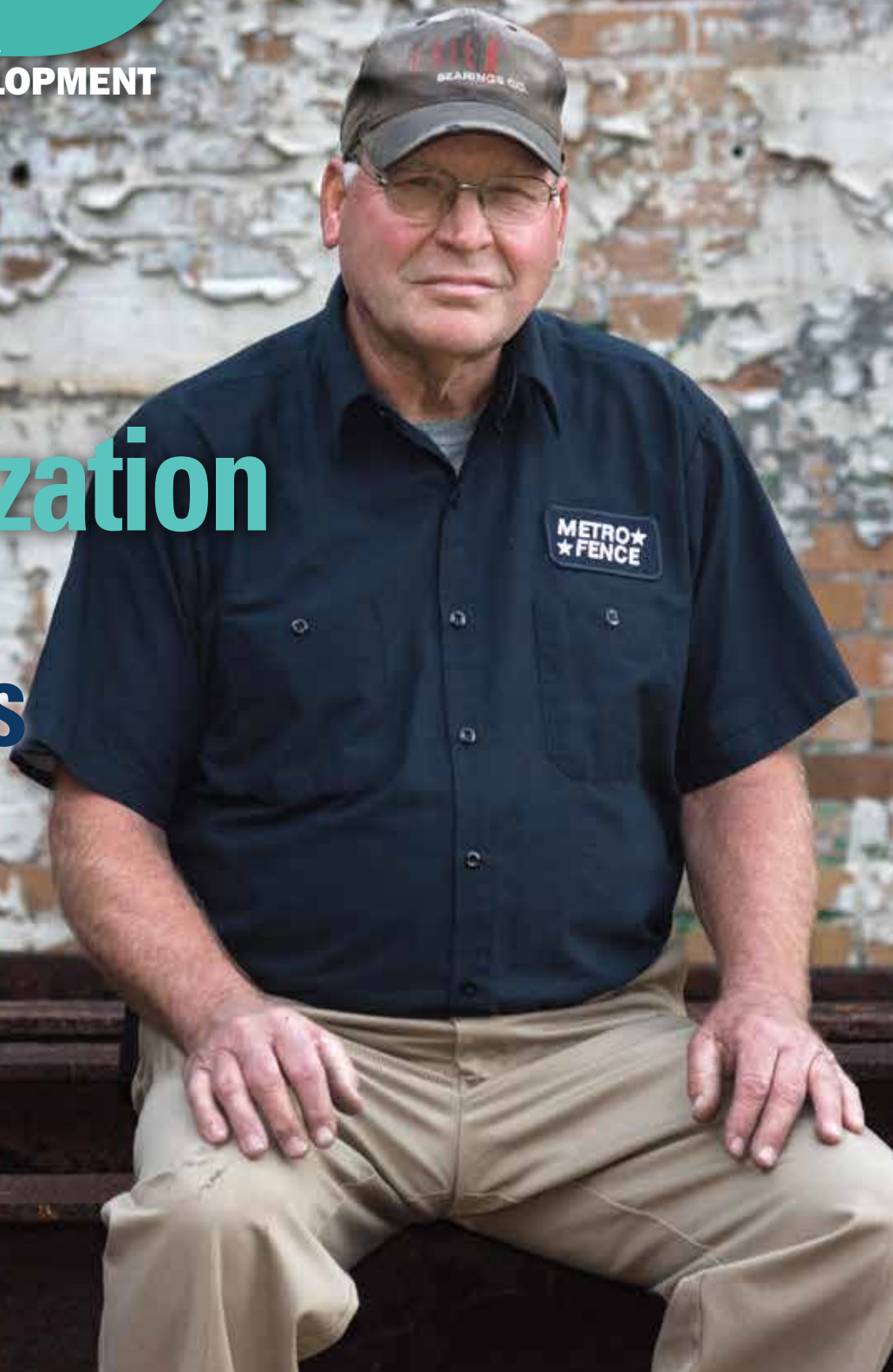
Sebastian Mallaby

Paul Krugman

Alan Blinder

... and many more

Globalization Insiders, Outsiders



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Questioning accepted truths

2016 has been a year of political upheaval, as accepted truths about the power of globalization to transform lives and lift millions out of poverty are being questioned by electorates in Europe, the United States, and elsewhere. No longer prepared to take experts and elites at their word, many voters appear to be rejecting the adverse consequences of globalization by casting their ballot for antiestablishment messages and candidates.

“I’ve had five places shut down on me or have forced reductions in my working career,” says John Powers, a former machinery repairman from the United States, who appears on our cover. Now making \$12 an hour after retraining as an electrician, the 60-year-old Air Force veteran considers himself lucky to have a job at all. “Some people grumble. I tell them, ‘The system did what it was supposed to do. It got you to school. Nobody’s going to guarantee you anything anymore. All they can do is help you.’ And they did.”

In this issue, we examine the good and bad sides of globalization. Sebastian Mallaby notes that after decades of increasing cross-border movements of capital, goods, and people, only migration continues apace. Capital flows have collapsed and trade has stagnated. But rather than a sign of retreat, he says, trade and finance may be resetting to a more sustainable level consistent with continued globalization.

IMF Chief Economist Maurice Obstfeld takes a closer look at trade. While the immense wealth-creating gains from trade are clear, steady globalization since the early 1990s coupled with low economic growth since the financial crisis have left many individuals and communities behind. “Globalization offers the potential of economic gains for all, but there is no guarantee that potential will be realized absent decisive government action to support those who suffer from the side effects,” he concludes.

If one lesson has been learned, it is the need to listen to all sides in the globalization debate—and especially those who speak on behalf of the ones left behind. Workers in advanced economies, such as John Powers, have been among the hardest hit. Frances O’Grady, General Secretary of the U.K. Trades Union Congress, reminds us of the constructive role trade unions can play. And Kumi Naidoo, a South African human rights activist, makes an impassioned plea for a more equal distribution of wealth.

But the doom and gloom overlook the good globalization has brought. Walter Ascona, a Peruvian copper miner, says free trade and investment have brought him good fortune. “Mining has provided me with a good living,” he told *F&D*. “I hope to continue working here, because it is an essential part of my life.”

On a more personal note I’d like to remember James Gordon, a longtime and dedicated member of the *F&D* advisory board, who passed away in October. We will miss him.

Camilla Lund Andersen
Editor-in-Chief

Read online at www.imf.org/fandd

Ground Breaker

Ismaila Dieng profiles Leonard Wantchekon, a former activist who plans to train the next generation of African economists

PRISON breaks are rarely worth the effort. Most escapees are back behind bars within hours. But in 1986 when Leonard Wantchekon escaped from the jail where Mathieu Kérékou, then president of the small West African country of Benin, locked up political opponents, it paid off. Thirty years ago, the young activist fled jail for neighboring Nigeria. By the time he returned home after a decade, Wantchekon had earned a doctorate. Later, he taught at Ivy League universities in the United States, published articles in leading academic journals, and was elected to the American Academy of Arts & Sciences, one of the oldest and most prestigious learned societies in the United States.

His escape was daring, but not dramatic. One day, in December 1986, he asked to see a doctor outside the prison to treat his arthritis, the result of 18 months of torture for daring to call for an end to Kérékou's dictatorial regime. The prison's director trusted the 30-year-old leftist student; he had been to the same doctor twice before. But this time, Wantchekon, who faced the prospect of many more years of incarceration, had no intention of returning. He arranged for a car and a motorbike to take him to Nigeria.

Wantchekon, now a professor at Princeton University, is one of the few African economists teaching at a top U.S. university. His research, which has received considerable attention from development economists, focuses on the political and historical roots of economic development in Africa. He studies the impact of the Atlantic slave trade on contemporary African economic developments and examines how citizen engagement can reduce cronyism, improve democratic governance, and lay the groundwork for policies conducive to economic growth.



“Wantchekon’s research provides a unique perspective on economic development. It covers big and important topics, while still using rigorous statistical techniques and empirical methods,” says Harvard’s Nathan Nunn, one of Wantchekon’s coauthors and editor of the *Journal of Development Economics*. “His focus on politics and its role in the development process helps fill a giant gap that currently exists in development economics.”

Giving back to the continent

Wantchekon, who has lived in the United States for 24 years, follows the Cleveland Cavaliers basketball team and is a big fan of its star LeBron James, who, like Wantchekon, is driven by a desire to give back to his community. James was determined to win the National Basketball Association championship for his hometown of Akron and home state of Ohio; Wantchekon aspires to train the next generation of African economists. After four years of planning, he opened the African School of Economics to provide first-class academic training to the continent’s young economists two years ago. Down the road, he plans to open undergraduate programs in economics, finance, management, statistics, and computer science. His goal is to build a critical mass of Africans with the training necessary to tackle the most pressing development issues facing the continent.

“When you live in Africa, the wonderful thing is that some of the most interesting challenges and puzzles of economic development are right at your window,” notes Wantchekon in an interview with *F&D*. The puzzles abound, but to date they have been dissected mainly outside the continent. Africa’s economic history is extensively researched worldwide, but few African-born researchers are involved in that research effort.

Last year, Grieve Chelwa, a Zambian postdoctoral fellow at Harvard, wrote in a widely read blog that “economics might have an Africa problem.” She noted that Oxford University’s *Journal of African Economies*, a prestigious and influential publication on African economic development issues, has only one Africa-based scholar on its 27-member editorial board. (Since the blog was written, the number has grown to two.) And none of the 64 academics on the editorial board of the *Journal of Development Economics* is based in Africa.

According to Wantchekon, there are two factors that contribute to this sparse African representation. First is the lack of liberal-arts-type training in undergraduate education in most African countries. “Undergraduate or high-school-level education tend to be overly specialized, whereas in economics you need students to be versatile,” Wantchekon says. Second, “the level of training in mathematics and statistics in social sciences curriculums is weak.”

The small number of African economists is a “loss” to the profession, says Wantchekon. “We don’t realize how damaging it is” to the study of development economics in Africa to have so few “Africans be involved in economic research at the highest level.” They bring an understanding of local conditions and an “intrinsic interest” that can bolster research results.

To illustrate that point, he described his surprise at how much poorer his mother’s village had become in 2009 since his previous visit in the mid-1970s. He became consumed with understanding the reasons for the degeneration, which went beyond the collapse of the bridge that linked the village to neighboring communities. The economist in him prompted an inquiry into the root cause of such a decline, which resulted in his first paper on agricultural economics, “The Curse of Good Soil? Land Fertility, Roads, and Rural Poverty in Africa,” coauthored with Piero Stanig from Bocconi University. Wantchekon and Stanig find that the combination of very fertile land and a lack of infrastructure makes people poorer. How does that happen? “When you are isolated with no infrastructure and the land is poor, you send your kids to school because the land is so poor that the kids cannot make it work. But if the land is rich, you may want to have more kids and send all of them to farm,” he says.

“When you train people, you allow them to turn their personal motivation into advanced economic research.”

“When you train people, you allow them to turn their personal motivation into advanced economic research. Africans can make an important contribution to economic knowledge by leveraging their cultural awareness and their intrinsic motivation to really get to the bottom of the challenges the continent faces.”

Unusual ride

Wantchekon was born and raised in a small village in central Benin, where his family was abused by the government. In 1968, his father, a subsistence farmer, was arrested, humiliated, and detained for several days for failing to pay a poll tax—a flat tax levied on every adult that amounted to about 80 percent of his family’s monetary income.

The episode stayed with him during his primary school years, and in 1971 he joined the leftist student movement to fight for democracy and against unjust taxes on the poor. In 1976, when he was in 11th grade, he was arrested for writing an article critical of the regime in his student newspaper. The following year he organized his first student protest.

Wantchekon once dreamed of being an algebra teacher. He was very good at math. But his studies were seriously compromised by his political activism, which only intensified after he entered the University of Benin in 1979. He put together a clandestine campus group to fight for freedom and democracy in the country. He did not last long at the university. The authorities expelled him following the students’ first general strike, forcing him into hiding for five years. But he remained close to the school and continued to organize student activities covertly from the outside.

In the mid-1980s, the government came under pressure to be less oppressive. Wantchekon returned to the campus,



but he and his friends did not see the political change they had expected. They organized a large protest that involved university students, high school students, and civil servants. Within three months of coming out of hiding, Wantchekon was arrested again and spent the rest of his time in Benin as a prisoner—until his 1986 escape.

Many accomplished scholars are well into a teaching career in their early 30s. Wantchekon had yet to earn an undergraduate degree by age 32. After his escape from prison, he went to Canada as a political refugee and immediately enrolled in Laval University in Quebec City. There he bypassed many undergraduate courses to go straight to an M.A. in economics, despite having no background in the discipline. Gérard Gaudet, then an economics professor at Laval, says that “because of his impressive determination and his advanced age for that level, the university decided to give him a chance to prove himself by doing one year of carefully selected undergraduate courses. He went through that with flying colors.”

“The master’s is actually my first university degree,” laughs Wantchekon, who went on to spend two years as a graduate student at the University of British Columbia in Vancouver in 1992, before switching to Northwestern University near Chicago, where he earned a Ph.D. in economics in 1995, specializing in political economics and development economics.

But it was not without difficulty. He struggled with the qualifying examinations, which should have resulted in his expulsion from the doctoral program. Luckily for Wantchekon, though, the university took into account mitigating circumstances, including his wife’s brush with death during the birth of their son and the fact that he had almost completed his dissertation. But his poor performance restricted his job prospects. Then he stumbled on an ad in the *American Political Science Review*: Yale University was looking for an assistant professor of political science with a specialty in game theory.

The application deadline was the next day. He ran home, put an application together, and mailed it the same day. He was called for an interview. Wantchekon had to borrow \$2,000 from one of his professors to buy a suit and a plane ticket for the interview—which went well. Within a week, Yale made him an offer, and he taught there from 1995 to 2001. He then taught for a decade at New York University, until Princeton lured him away in 2011. He now divides his time between the Ivy League campus in New Jersey and Benin, where Wantchekon’s dream of training African economists is taking shape.

A fledgling training ground

The African School of Economics, in a temporary facility near Benin’s economic capital, Cotonou, currently offers master’s degrees in mathematics, economics, statistics, and business administration. It also offers a Ph.D. in economics. Its first master’s students will graduate in December 2016. The school boasts a dozen academic partners, including Princeton, which has partly subsidized the school for four years, and the World Bank, which funds about 20 scholarships for students in the mathematics, economics, and statistics programs.

Wantchekon describes his plans for expansion and the modern 18.5-hectare campus he intends to build with a botanical garden, an African art museum, sports grounds, and all the amenities of a North American university such as Princeton. Wantchekon envisions opening campuses in East Africa (Nairobi) and West Africa (Abidjan)—eventually serving 15,000 students.

Wantchekon has designed a curriculum he thinks will allow his students to compete with the best in the world. It focuses heavily on quantitative methods and research skills. Students will also be acquainted with the basics of African economic history. “One of the things that separates us from other continents is that we know less about ourselves. He says, for example, few Africans have heard of the Amazons—an all-women elite military unit within the Kingdom of Dahomey, the African kingdom that occupied what is now Benin. The unit was created in 1645 by King Houegbadja and continued until it was disbanded by the French colonial administration in 1894.

Wantchekon currently spends four months a year in his homeland, but as the school grows, Wantchekon, 60, intends to spend more time in Benin. “I see my role being there to stimulate research, not to manage things on a daily basis,” he says. But he also wants to remain closely connected with Princeton and other U.S. universities. “Even after my retirement, I will always to some degree want to be part of a place like this. It is a way to be grateful for the opportunities I was offered. And remaining connected with a university like Princeton and contributing to knowledge is something I’d like to continue,” he says.

An eclectic researcher

Dahomey was a major supplier of slaves to European slave traders during the 17th and 18th centuries. So many Africans were put in bondage from Dahomey that it was called the Slave Coast. Wantchekon says the legacy of slavery is pervasive. He remembers when he was growing up, hearing friends joking that “this person will sell you” or “make you disap-

pear.” Those attitudes seemed to bespeak a general societal condition that puzzled Wantchekon: a lack of trust between people who sometimes had lived decades together as friends, colleagues, and neighbors. Intuitively, he says, he thought that “this must have some connection with the slave trade,” and later he became captivated with that idea.

“Missionary schools still play an important role in Africa.”

To get a better understanding of the mistrust, he got in touch with Harvard’s Nunn, who had been studying the long-term effects of slave trade on economic development. They began to exchange views and eventually coauthored what would be one of Wantchekon’s most influential papers, “The Slave Trade and the Origins of Mistrust in Africa,” which was published in the *American Economic Review* in 2011 and has been cited by other scholarly research more than 700 times since. Nunn and Wantchekon combined contemporary survey data with historical data on slave shipments by ethnic group to show that Africans whose ancestors were heavily raided by Atlantic and Indian Ocean slave traders are less trusting today than those whose ancestors escaped slave raids. “The research provided valuable evidence showing that historical shocks can have lasting and persistent impacts on the cultural fabric of a society. It added to our understanding of the detrimental impacts of the slave trade,” says Nunn. “Given that trust is fundamentally important for economic transactions, the paper provided evidence for one channel underlying the long-run detrimental impacts of the slave trade on economic development.”

Field experiments

Wantchekon was attracted to economics because of his interest in mathematics and logical reasoning. But his passion for activism brought him back to his first love: politics. His doctoral adviser at Northwestern, Roger Myerson, who won the 2007 Nobel economics prize, urged his students to invest their analytical skills in political engineering, which seeks to design social institutions.

Wantchekon took the advice seriously. Myerson’s theoretical work inspired Wantchekon to “imagine” specific institutional fixes to political problems and test them empirically and rigorously. One of his papers, which reported the results of a field experiment on clientelist, or patronage-based, electoral strategies, was the first randomized control trial in political economy research that involved real candidates competing in real elections.

Wantchekon persuaded four candidates in the first round of Benin’s March 2001 presidential elections to allow his team to write campaign messages for each of them and test them on villagers. The team created two types of messages. One used specific opportunistic and targeted promises—to build roads, schools, and clinics in a village, for example. The other presented broad messages on the need to improve the nation’s prosperity. Voters in villages that received regular campaign messages from candidates rather than those prepared for

the experiment served as a control group. The experiment empirically validated the argument that clientelist appeals, such as targeted promises to build roads and clinics, are more effective than broad public policy appeals. However, clientelism becomes electorally less appealing when candidates run town-hall meeting–based campaigns.

Wantchekon is now an eclectic and hybrid development economist, happily navigating political science and economics. Wantchekon’s “work appears in journals both in economics and political science, which is extremely rare. Being able to navigate those two fields with such ease and to bridge a gap between them is in itself an important contribution to economics, and I would think to political science as well,” says Gaudet, his professor at Laval, who is now retired.

“He is an incredibly creative social scientist, always focused on the most important issues of development, be they politics or education. In the 1990s, he worked on how elections work when the loser refuses to accept the result. It turned out to be a central issue in emerging democracies in Africa,” says Harvard’s Andrei Shleifer.

Wantchekon is writing a book on economic development and long-term social mobility. He plans to use data from a sample of three generations of families to document social and economic progress from precolonial to present-day Benin. The data go back to the late 19th century. (Dahomey became a French colony in 1904 and gained independence as the Republic of Benin in 1960.) He aims to uncover the role of education and various forms of investment by families and governments in development outcomes.

The book is a follow-up to an education and social mobility project that led to his 2015 paper—published in the *Quarterly Journal of Economics*—that showed how missionary schools a century ago led to the education of a future elite and profoundly affected the structure of society and the economy in Benin after independence. “Missionary schools still play an important role in Africa, but I don’t think anybody has realized their enormous significance for building what economists call “upper-tail” human capital,” says Shleifer.

On a beautiful June day, on an almost empty Princeton campus, Wantchekon reflects on the journey from student activist to founder of a school to train African economists: “It was not an easy journey, but it has ended well.”

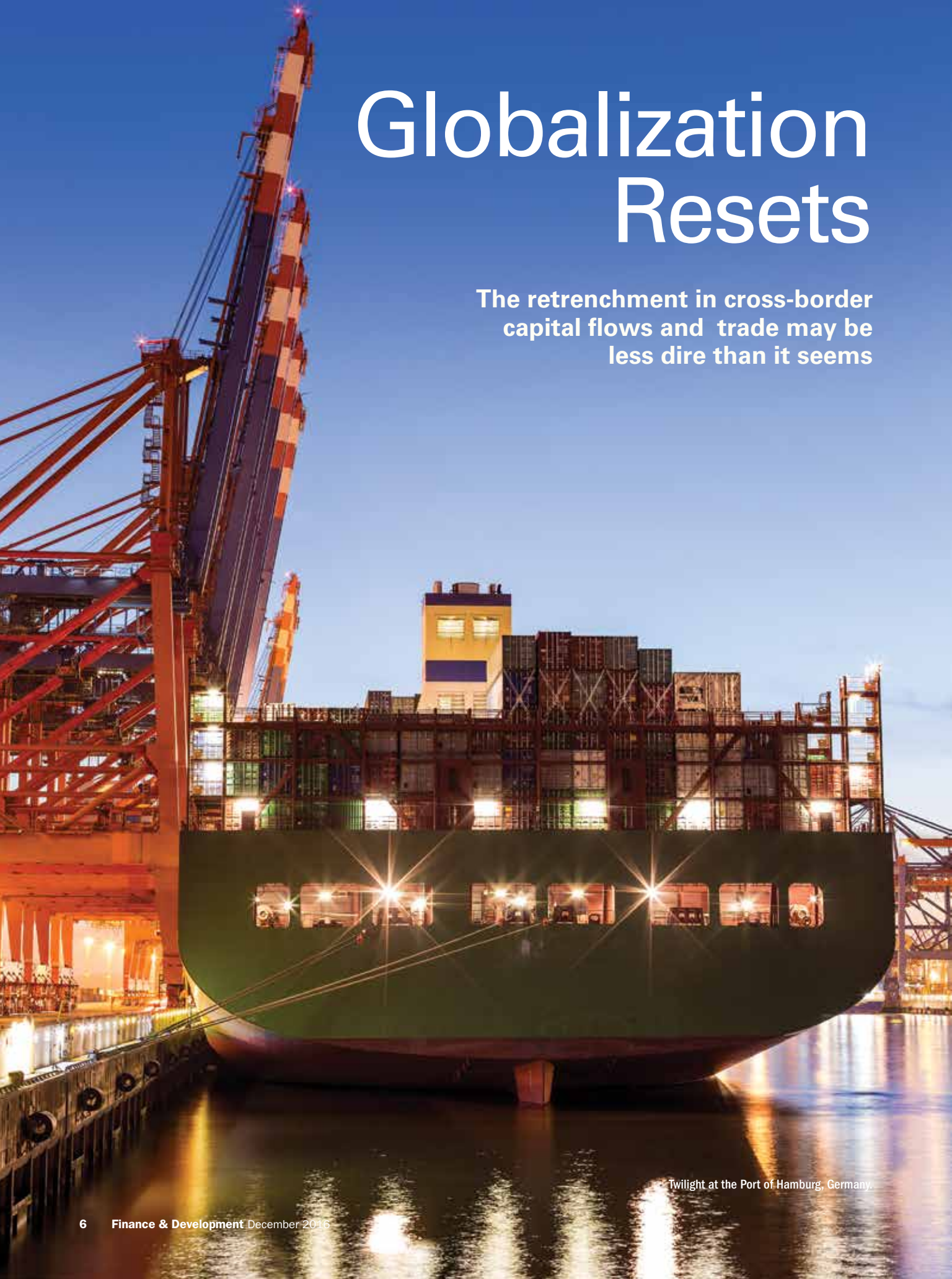
Luck played a role, he says. His carefully designed plan to escape to Nigeria almost unraveled at the last minute. When he reached the border crossing, a police officer who knew him well was on duty. Terrified, the young activist—who knew a bit about incentives—paused, reached in his pocket, and pressed a wad of bank notes into the policeman’s hand. The officer grabbed the bribe and urged the driver to proceed.

Within minutes, which seemed like an eternity on the dirt road from Benin, he reached Nigeria. Wantchekon did not know it then, but he was making history—pulling off one of the most productive prison breaks ever. ■

Ismaila Dieng was until recently on the staff of Finance & Development, and is now Director of Communications and External Relations of the African Development Bank Group.

Globalization Resets

The retrenchment in cross-border
capital flows and trade may be
less dire than it seems



Twilight at the Port of Hamburg, Germany.



Sebastian Mallaby

THE two decades following the Cold War were celebrated and decried as the era of globalization. Cross-border movement of capital, goods, and people expanded inexorably. Between the fall of the Berlin Wall in 1989 and the early onset of the global financial crisis in 2007, international capital flows grew from 5 percent of global GDP to 21 percent; trade leaped from 39 percent to 59 percent; and the number of people living outside their country of birth jumped by more than a quarter.

But today the picture is more complex. International flows of capital have collapsed. Trade has stagnated. Only the cross-border movement of people marches on.

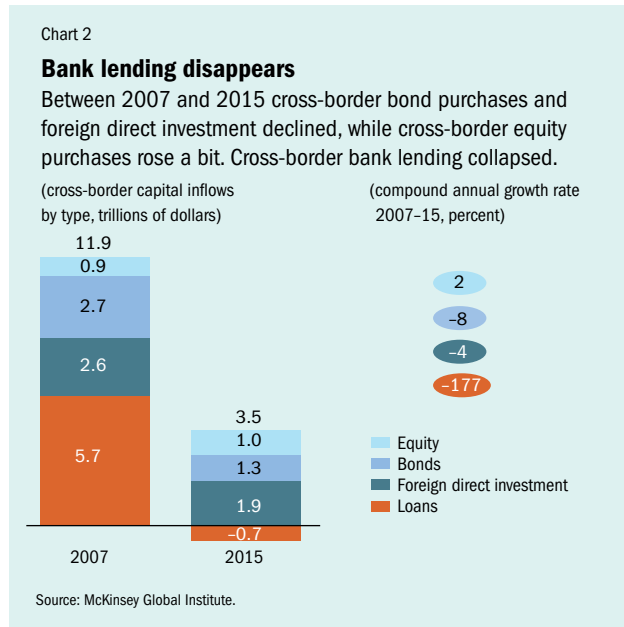
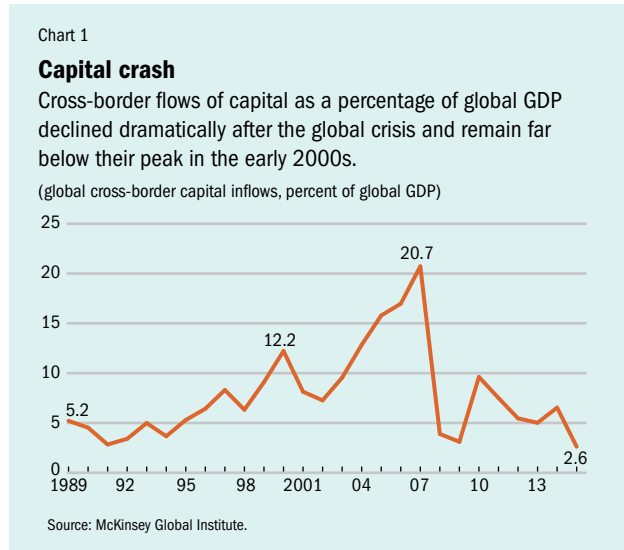
Do these developments portend the start of a new era—perhaps one of deglobalization? Such a reversal is possible: the rapid globalization of the late 19th century gave way to the deglobalization of the early 20th. And yet, in the absence of a shock comparable to World War I or the Great Depression of the 1930s, history seems unlikely to repeat itself. A look beyond the headlines suggests that globalization is changing rather than stagnating or reversing.

Capital flows

Consider first the trends in global capital movement—the most compelling area of the deglobalization story. The McKinsey Global Institute (Lund and others, 2013) reports that, in 2008, cross-border flows of capital crashed to 4 percent of global output, a fifth of their peak the previous year (see Chart 1). That collapse, and the even lower level of cross-border financing in 2009, reflected the extraordinary freeze-up of financial markets following the September 2008 bankruptcy of the U.S. investment firm Lehman Brothers. But what is more remarkable is that financial globalization has yet to recover. McKinsey, in an update of the data used in its 2013 study, reports cross-border flows fell to 2.6 percent of global GDP in 2015 and over the period 2011–15 averaged just 5.4 percent of global GDP—a quarter of the 2007 level.

What might explain this? The first clue can be found by separating cross-border finance into four categories (see Chart 2). One of these—portfolio equity investment, that is, investors’ purchases of shares in foreign stock markets—is up slightly in dollar terms since 2007. Two types of flows—bond purchases and foreign direct investment—have fallen, but not dramatically. It is the fourth—bank lending—that has collapsed. In 2015, net cross-border lending was actually negative, as banks called in more international loans than they extended. Taking these figures together, McKinsey calculates that the evaporation of cross-border bank lending explains three-quarters of the overall fall in cross-border finance since 2007.

To some extent—indeed, probably to quite a large extent—the retreat from cross-border lending represents a healthy correction. In the years before 2007, two parallel manias boosted international lending unsustainably: European banks were loading up on U.S. subprime mortgages, and banks in north-



ern Europe were lending prodigiously to the Mediterranean periphery. It is therefore not surprising that the collapse of cross-border lending has been concentrated among banks in Europe. According to the Bank for International Settlements, euro area banks reduced their overseas claims by almost \$1 trillion annually in the eight years following the Lehman Brothers bankruptcy, a far more dramatic contraction than occurred in other regions.

Getting it right

Seen in this light, the years leading up to the financial crisis are not a useful guide to how much financial globalization is normal or desirable. Cross-border capital flows peaking at 21 percent of global output reflected a toxic mix of ambi-

tion and credulity, notably among European banks. But if 2005–07 was an aberration, what is the appropriate benchmark for global integration?

One way to answer this question is to consider the period from 2002 to 2004, a relatively calm interlude between the early 2000s crash of internet-based companies (the so-called dot-com collapse) and the U.S. subprime borrowing and euro area bank lending mania later in the decade. In those three years, cross-border capital flows averaged 9.9 percent of global GDP. Judging by that benchmark, the new normal of 2011–15 is just over half the old normal of the previous decade. By this measure, financial deglobalization may have overshot.

There is, however, a second way of answering the question, for what was normal even in the calm years of the early to mid-2000s may not necessarily have been desirable. Since that time, there has been a reappraisal of the case for cross-border finance. For one thing, some of its theoretical advantages appear to be just that: theoretical. In principle, financial globalization allows savers in rich countries to reap high returns in fast-growing emerging market economies, thus easing the rich-country challenge of paying for retirement. Meanwhile, it supplies foreign capital to emerging market economies, allowing them to invest more and thereby catch up faster with the rich world. But in reality, many large emerging markets have grown by mobilizing domestic savings, exporting capital rather than importing it. The textbook case for financial globalization exists mostly in textbooks.

If the upside of financial globalization has been elusive in practice, the downsides have grown more obvious. First, global capital tends to rush into small open economies during good times, aggravating the risk of overinvestment and

bubbles; it flees in bad times, exacerbating recession. That has led middle-income nations to experiment with capital controls. Second, cross-border banking involves large, complex, and hard-to-regulate lenders, which poses risks to society that became evident during the 2008 bust. Because of those risks, regulators in the rich world have discouraged banks from foreign adventures, which has added materially to deglobalization. Forbes, Reinhardt, and Wieladek (2016) show that, in the case of Britain, regulatory discouragement of foreign lending can be remarkably powerful, accounting for about 30 percent of the attrition in cross-border lending by U.K. banks during 2012–13.

Although there is no denying that finance is less international than it used to be, it is debatable whether this retrenchment is best described as “deglobalization,” with its connotations of retreat, or as something more positive—“sounder global management.” After all, the new regulatory restrictions are at least partly a response to the risks of cross-border financing, which suggests a desirable level of flows considerably lower than the 9.9 percent of global output during 2002–04. If the optimal ratio were, say, around 5 percent, today’s degree of financial globalization might be just about right.

Trade retreat

Now consider the second form of globalization: trade. Here, there is less doubt about the benefit of cross-border activity. The great development success stories of east Asia were built on exports. From Africa to Latin America to south Asia, autarky, in which states prefer self-sufficiency to trade, has fared badly as a formula for poverty reduction. According to economists Gary Hufbauer and Euijin Jung (2016), progressive trade expansion since World War II has added more than \$1 trillion a year to U.S. national income, and the global gains are commensurately larger. Although it is true that trade, like technological advances, can skew the distribution of income, the benefits of globalization to the overall economy far outweigh the losses to workers hurt by imports. So the right response to inequality is not protectionism. It is taxing and spending policies that redistribute some of the overall gains to those who are hurt by trade. That this redistribution has so far been inadequate is a failure of politics rather than of globalization.

Because trade is so beneficial, the current backlash against it is damaging. The Doha Round of global trade talks has failed; the Trans-Pacific Partnership faces an uncertain path to ratification; efforts to conclude the Transatlantic Trade and Investment Partnership have stalled. By opting to leave the European Union, British voters demonstrated indifference to the benefits of Europe’s



Passengers at the Gare de Lyon railway station, Paris, France.

single market—or at least their unwillingness to accept migration as the price of membership. In the United States, the recent presidential campaign showed how support for trade has withered. Republican presidential candidate Donald Trump promised to impose punitive tariffs on trading partners. Democratic candidate Hillary Clinton abandoned her support for the Trans-Pacific deal.

This backlash mirrors a sharp deceleration in the growth of trade relative to GDP. Between 1990 and 2007, global trade grew at about twice the rate of global output; since 2008, it has lagged global growth. As with financial globalization, this setback has outlasted the immediate aftermath of the Lehman crisis. Measured as a share of global GDP, trade crashed in 2009, then recovered sharply in 2010–11. But starting in 2012, it drifted sideways and then down (see Chart 3).

And yet, as with finance, this seeming shock to the project of constructive globalization is not as bad as it looks. A small part of the slowdown reflects the erection of myriad subtle trade barriers—what Hufbauer and Jung term “microprotectionism.” The IMF recently examined the effects of this uptick in protectionism and called them “limited.” So a larger part of the trade slowdown reflects statistical factors that should not be interpreted as setbacks to globalization. Some part may even reflect shifts that prove how effectively globalization is working.

Globalization is changing rather than stagnating or reversing.

Take, for example, the decline in trade from 60 percent of global GDP in 2014 to 58 percent in 2015—a fall equivalent to \$4.5 trillion. A good chunk of this decline is a statistical illusion: the dollar was stronger and commodity prices were lower, so the dollar value of trade went down. Most obviously, the oil price was 48 percent lower in 2015 than in 2014, causing an \$891 billion drop in the value of oil traded, even though the number of barrels traded actually increased (BP, 2016). This effect alone explains a fifth of the shortfall in trade relative to GDP in 2015. Meanwhile, the price of iron ore was down 43 percent, and wheat was down 24 percent. These price adjustments make trade look anemic, but they tell us nothing about the health of globalization.

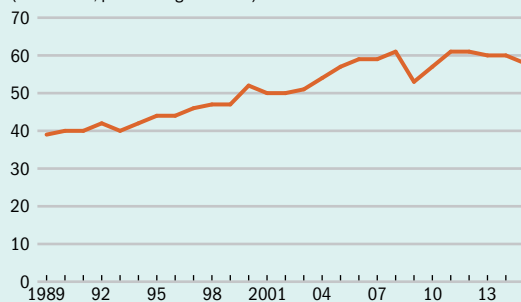
Trade can also be affected when production moves closer to consumers, even when this is not prompted by protectionist impediments to cross-border commerce. For example, a breakthrough in drilling technology, called fracking, has reduced the U.S. need to import oil and gas. The maturation of manufacturing supply chains in Asia may be having a similar effect. China used to assemble products such as the iPhone, importing such complex components as semiconductors. Today, China’s increasing sophistication allows it to make components domestically, reducing imports. In this way, ironically, China’s trade-based development model, which is a prime example of the success of globalization, has allowed it to reduce some aspects of its trade dependence.

Chart 3

World trade erratic

Global trade declined after the financial crisis, recovered, and has tapered off recently.

(world trade, percent of global GDP)



Source: World Bank.

Two final considerations encourage the conclusion that trade’s apparent stagnation is not a grave setback—at least, not yet. First, as the world economy becomes richer, it shifts naturally from manufacturing to services, and services are traded less, partly because of higher protectionist barriers in service industries. Second, to the extent that current account imbalances shrink, trade may decelerate, even though smaller imbalances are a sign of healthier globalization. In 2007, according to the World Bank, China ran a current account surplus equivalent to 10 percent of its economy—meaning that a shortfall in domestic spending required it to generate net exports worth a tenth of output. But by 2015, China’s current account surplus had shrunk to just 3 percent. China is now spending more of its income, so it is no longer compelled to ship so much of what it makes abroad. Of course, China could theoretically trade more even while avoiding a trade surplus. But reductions in savings imbalances may be a factor behind sluggish trade data. Savings deficits have shrunk in the United States and Mediterranean Europe even as China’s savings surplus has fallen.

In sum, trade is a clearly beneficial aspect of globalization. A world with minimal trade barriers allows producers in each country to concentrate on its comparative advantages, learn through global competition, and reap economies of scale. The policy backlash against trade is therefore troubling, especially since a less open and competitive world will mean slower gains in productivity, adding to the squeeze on middle-class incomes that trade’s critics lament. But the trade data, sometimes cited to support the view that we are deglobalizing already, do not justify despondency—at least, not yet.

Migration grows

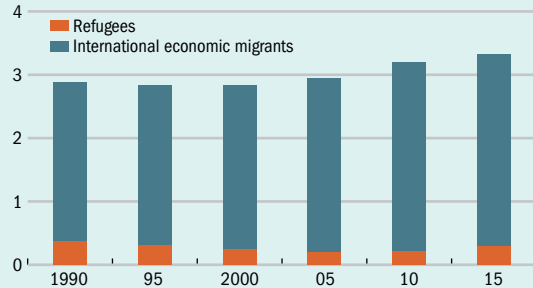
The third aspect of globalization, the movement of people, has been growing of late. During the 1990s, there was almost no increase in economic migration relative to global population: at the start of the decade, economic migrants accounted for 2.5 percent of the world’s people; in 2000 the share was 2.6 percent (see Chart 4). Since the turn of the century, however, migration has gained momentum, rising to 3 percent of global

Chart 4

On the move

The total number of migrants was stable in the last decade of the 20th century, but has since picked up.

(percent of global population)



Source: World Bank.

population by 2015. Some 222 million people now live outside their native countries, suggesting that expatriate opportunities outweigh the psychological benefits of rootedness—proximity to family and a sense of cultural affinity.

Tragically, trends in flows of refugees fleeing wars and other instability have followed a similar pattern, according to

Digital globalization now exerts a larger impact on growth than merchandise goods trade.

the World Bank. From 1990 to 2005, refugees declined as a share of global population, from 0.37 percent to 0.20 percent. But that trend has since reversed, with the refugee share rising to 0.29 percent in 2015—still lower than the proportion in the first half of the 1990s, when millions fled the fighting in the former Yugoslavia, but bigger in absolute numbers. In 2015 there were 21 million refugees, more than the peak of 20 million in 1992. Moreover, the number of internally displaced people is higher now. The global problem of war and disaster-driven displacement is now at a record.

More positive than negative

If globalization is the process of sharing ideas and resources across borders, the evidence reviewed here is more positive than otherwise. Financial globalization has reversed, but the new level may be healthier. What's more, foreign direct investment—the most stable, knowledge-intensive, and productive form of cross-border capital flow because it gives those in recipient countries a direct role in running a business—now accounts for a far larger share of total cross-border flows. With respect to trade, the political climate is damagingly hostile, but recent trade data are less worrisome than they appear. Meanwhile, the movement of people, perhaps the most important of the three traditional forms of globalization, continues to outpace global population

growth. If globalization is ultimately about freeing individuals to seek inspiration and opportunity beyond their borders, or even just to escape harsh circumstances at home, there is little sign of a slowdown.

But the most compelling ground for optimism lies elsewhere. During the past 15 years or so a fourth channel for globalization has emerged, one that was barely recognized when the Berlin Wall came down. Ideas, data, news, and entertainment are now shared globally on the internet, in volume that dwarfs the traditional channels of interaction across borders. The McKinsey Global Institute (Manyika and others, 2016) reckons that this digital globalization now exerts a larger impact on growth than merchandise goods trade. Millions of small businesses that lack the scale to venture abroad physically have turned themselves into exporters by participating in online marketplaces. Some 900 million people use social media to connect with friends or colleagues across borders. Millions of students study in virtual classrooms, taught by people on the other side of the world.

The progress of globalization depends on two forces: *technology*, which eases travel and communication, and *politics that underpin an open world*. The remarkable thing about the 1990s was that both forces operated together: cheaper travel and telephony were reinforced by the opening up of China and by a series of breakthroughs in trade liberalization—the North American Free Trade Agreement, the European single market, and the Uruguay Round of global trade negotiations.

There is no denying that the world finds itself in a new era: technology still drives integration forward, but political resistance is growing. And yet, for the moment, the drag from politics seems weaker than the thrust from technology. Absent some truly cataclysmic shock—something akin to a world war or a depression—the best bet is that globalization will march on. ■

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Leave Zombies Be

The stalled march toward trade liberalization is just as well

Paul Krugman

GLOBALIZATION is currently under political siege, with populists from both the left and the right denouncing proposed new agreements like the Transpacific Partnership (TPP) and the Transatlantic Trade and Investment Partnership. Much of what these politicians say is nonsense. But there are some deep reasons why the march of globalization seems to be faltering, and denouncing bad economics won't be enough to restore business as usual.

The crucial point, I'd argue, is that there has always been significant dissonance between the rhetorical commitment of economists and elites to free trade and the message that actually emerges from economic models. Yes, textbook trade theory says that international trade makes countries richer, while restricting it makes them poorer. But it also suggests both that there are relatively limited costs from anything short of extreme protectionism and that trade can have strong effects on income distribution within nations, creating losers as well as winners.

Why, then, has trade liberalization drawn so much approbation from economists and policy elites alike? For economists the answer, I suspect, is that comparative advantage is such a nifty concept—an insight Paul Samuelson famously held up as a prime example of economics reaching a conclusion that is both true and nonobvious, and which therefore holds a special place in the profession's heart (see "Get on Track with Trade," in this issue of *F&D*). For elites, I suspect that it matters a lot that the post-World War II trade system has been a uniquely successful example of international cooperation. This makes trade liberalization very attractive to the kinds of people who go to Davos and talk knowingly about global affairs.

And for a long time—from the 1940s into the 1980s—trade liberalization proceeded remarkably smoothly. The losers from growing trade didn't seem that obvious or numerous, largely because much of that growth took the form of intra-industry flows between similar countries, which had minimal effects on distribution.

Since around 1990, however, the story has been very different. For a couple of reasons—lower transportation and communication costs (exemplified by the container ship revolution), a wholesale shift of developing economies away from import-substituting policies—we've seen a huge surge in North-South trade, that is, trade between countries at very different levels of development, with very large differences in wages. This trade still expands real income on both sides, but it has produced



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much bigger effects on industry employment and, probably, the distribution of income between labor and capital than the trade growth from 1950 to 1980. Chinese exports really have displaced millions of U.S. manufacturing jobs; imports from developing economies are an important reason, although not the only reason, for stagnating or declining wages for less-educated workers.

As Branko Milanović has shown, the overall effect has been big gains for the third-world middle class and the global top 1 percent, with a big sag in between representing the advanced-economy working class. From a global welfare point of view, this is surely positive: the income

gains of hundreds of millions of formerly very poor people matter a lot. But that's not much comfort for first-world workers who find their lives getting harder, not easier.

Given this reality, it's surprising that the backlash against globalization has been so long in coming, and that its effects have so far been so mild. Many people predicted a turn to protectionism after the Great Recession; in fact, not much in

The income gains of hundreds of millions of formerly very poor people matter a lot.

the way of new trade restrictions has happened, at least so far.

What is true is that the march toward ever-more-liberal trade and investment policy seems to have stalled. In fact, it was losing momentum even before the Great Recession, let alone Donald Trump: the Doha Round has been a zombie for a long time.

Should we be disturbed by the end of this particular road? I'd argue not. Trade is already remarkably free by historical standards, and proposed new agreements like TPP are more about intellectual property and dispute settlement than trade per se. It will not be a tragedy if they don't happen.

A global trade war—which would have devastating effects on poor countries dependent on labor-intensive exports—would, of course, be a different matter. But if we can avoid that kind of plunge, the best attitude might well be to treat globalization as a more or less finished project, and turn down the volume on the whole subject. ■

Get on Track with Trade

Train hauling automobile freight near Campbellsburg, Kentucky, United States.

Trade raises productivity but may hurt some unless policies redistribute the benefits

Maurice Obstfeld

AS the global economy struggles with slow growth, political support for freer international trade has weakened, most notably in advanced economies and especially in the United States. While some resistance to freer trade is nothing new, it never stopped the postwar trade liberalization process, which delivered growth in advanced economies and promoted convergence of per capita incomes throughout a significant portion of the developing world.

Opposition to trade remains a minority view—most people gain from trade, but it seems to have many more vocal enemies these days.

Trade enables a country to use its resources more efficiently. But the gains from that greater efficiency may be divided unevenly among a country's citizens, so that some of them lose out. The result can be greater income inequality and disrupted lives.

Over the past quarter century, the global economy has seen a seismic transformation thanks to increased trade and technological and political changes. While there is much progress to cheer at the global level, most governments have not ensured that gains from economic growth—including those due to trade—are broadly shared. In some places, tepid and declining overall income growth has brought frustrations to a boil.

Trade's benefits have always been unequally shared, and maybe more so in recent years. But its gains are all the more important in today's low-growth environment. Countries must protect and expand these gains through policies that redistribute them more equitably. That will also make economies more resilient to a range of market forces, beyond those connected with globalization.

Trade and technology

Since World War II, progressive reduction in trade barriers such as tariffs and quotas has supported growth and welfare everywhere it was undertaken—in part by getting a greater variety of goods to households at lower prices. Even more important, trade also has powerful positive effects on productivity—that is, the efficiency with which global resources are used to produce economic goods. These gains are especially important to reap in a world where economic growth seems to be slowing.

The main reason trade enhances productivity is *comparative advantage*, as the British economist David Ricardo explained two centuries ago. For example, he said, if England and Portugal both can produce cloth and wine, output of the two goods is maximized when the country with the lower domestic opportunity cost of wine making spe-



cializes in producing it, while the other country specializes in cloth. Both trade partners gain from this specialization. Moreover, that specialization remains efficient even if one of the countries can produce both goods more efficiently than the other—that is, has an *absolute* productivity advantage in making *both* goods. Trade always raises the productivity of every country that allows it—a point often missed in public discourse today.

Empirical research supports Ricardo's fundamental insight that trade fosters productivity. But the productivity and growth benefits of trade go far beyond Ricardo's insight. With trade, competition from abroad forces domestic producers to raise their game. Trade also offers a wider variety of intermediate production inputs firms can use to produce at lower cost. Finally, exporters can learn better techniques through their engagement in foreign markets, and are forced to compete for customers by raising efficiency and upgrading product quality (for example, Dabla-Norris and Duval, 2016).

In Ricardo's world, trade is like a new, better technology that simultaneously becomes available to all countries that open their borders and from which everyone benefits equally.

Trade sometimes works this way. But such positive accounts of trade throw no light on why some people bitterly oppose it.

There are two main aspects of trade that help explain the opposition. First, *there are short-run costs of redeploying an economy's resources out of the sector that shrinks under free trade*. Some workers are stranded in a contracting cloth sector, perhaps unable to move to a wine-producing region or to learn wine-making skills quickly. In the real world, costs and inefficiencies can be protracted and fall harshly on some, making long-run gains to the economy feel abstract and irrelevant to them.

Second, even without adjustment problems, *trade can worsen the domestic income distribution, even making some people worse off in absolute terms*. In this case, although the country as a whole experiences increased productivity and income, some people may gain disproportionately, while others lose absolutely. For the losers, it feels like a raw deal (see box).

These so-called redistributive effects can arise not just through globalization, but through technological improvements that benefit some parts of the economy more than others. The sequence of events is almost identical if technical advances allow more cloth to be produced with the same input of unskilled and skilled workers while the wine production technology doesn't change. Because trade is analogous to a technological improvement, it is no surprise that technology's advance can redistribute income just as trade does. Yet, even though a substantial minority is skeptical of trade, almost no one opines against higher productivity.

A major challenge in understanding the link between globalization and income inequality is to filter out the important effects of other factors, such as changes in technology. To make this task more complicated, globalization and technology feed each other—indeed, globalization's encouragement of technological progress is an important source of gains from trade.

Why may some people lose from trade?

There are many ways some people can lose from trade, but economists Wolfgang Stolper and Paul Samuelson provided one of the simplest and most influential theoretical examples in a 1941 paper. Suppose that wine and cloth production both rely on skilled and unskilled workers, but that wine requires relatively more skilled winemakers and cloth employs mostly unskilled factory hands. If cloth production shrinks as a result of freer trade, newly unemployed unskilled workers somehow have to find jobs in the expanding wine sector, where there are relatively few low-skill jobs, even though that sector as a whole is growing. The only way the unskilled former workers can be reemployed in wine is if their wages fall and those of skilled workers rise, so that all businesses in the wine sector have an incentive to substitute unskilled for skilled workers—for example, by leveraging fewer skilled workers to supervise teams of the unskilled.

Inequality between and within nations

Even as there has been some drop in income inequality *between* nations in recent decades, inequality has risen *within* many nations. Trade and technology have both spurred the global convergence of incomes for many in poorer countries while shifting production patterns and income distribution within nations.

The most striking examples of reduced inequality between nations come from Asia, notably, the graduation of Hong Kong SAR, Korea, Singapore, and Taiwan Province of China to high-income status and the recent economic growth of China and India. India's per capita real GDP grew from \$553 in 1991 (in 2010 dollars) to \$1,806 in 2015 while China's rose spectacularly, from \$783 in 1991 to \$6,416 in 2015. Given these countries' enormous populations, the Chinese and Indian success stories contribute to a large drop in inequality among the world's population. Slower-growing Latin America and sub-Saharan Africa have not reduced their gaps with richer countries as quickly, but the incidence of poverty has fallen considerably in the poorer countries.

These advances in income convergence and poverty reduction owe much to global trade and investment—if not to free-trade policies in many cases, then to an outward orientation of production.

The fruits of growth, however, have not always been distributed equally in emerging market and developing economies. Roughly speaking, inequality has worsened most in Asia and eastern Europe, whereas in parts of Latin America—Brazil is a notable example—it has declined, while remaining high compared with much of the rest of the world.

Increased inequality in nearly all advanced economies, coupled with the recent slowdown in economic growth, has led to relatively slow long-term growth in household incomes except at the top (see Chart 1). The causes of the slowdown are complex, but they stem partly from the global financial crisis.

The U.S. case illustrates how economic growth in advanced economies has become less inclusive as it has slowed over the postwar period. In 2014, U.S. real median annual fam-

ily income was \$53,657 according to U.S. Census Bureau data, roughly the same in real (inflation-adjusted) terms as in 1989. In contrast, this measure of income nearly doubled between the early 1950s and the late 1980s. After a period of rapid and more widely shared economic advancement, at least half of U.S. households missed the benefits of economic growth over the past quarter century. (This was before an abrupt 5.2 percent jump in median income in 2015—whose durability remains to be seen.)

To a substantial degree, these developments reflect idiosyncratic national developments—such as changes in tax progressivity, executive pay constraints, or the financialization of the economy. But globalization and technology are at least potentially universal drivers, so it is important to try to quantify their respective roles. As noted, though, globalization and technology are intertwined. Technological innovations, such as in information and communication technology (ICT), have made more trade possible—for example, in services such as banking and insurance. Given the opportunity to enter export markets, or faced with import competition, businesses may innovate to upgrade production processes. Foreign direct investment as well as trade can result in the spread of technological best practice across borders, which itself influences patterns of comparative advantage. In other words, globalized trade itself helps to make technology a global factor.

Global transformation

Events of the tumultuous past quarter century leave little doubt that both trade and technology have played significant roles in altering production and wage patterns worldwide. Around the start of the 1990s, several developments converged to transform the global economy. The Soviet bloc collapsed, freeing its members in eastern Europe and Asia to move to market-driven economies open to international trade and investment.

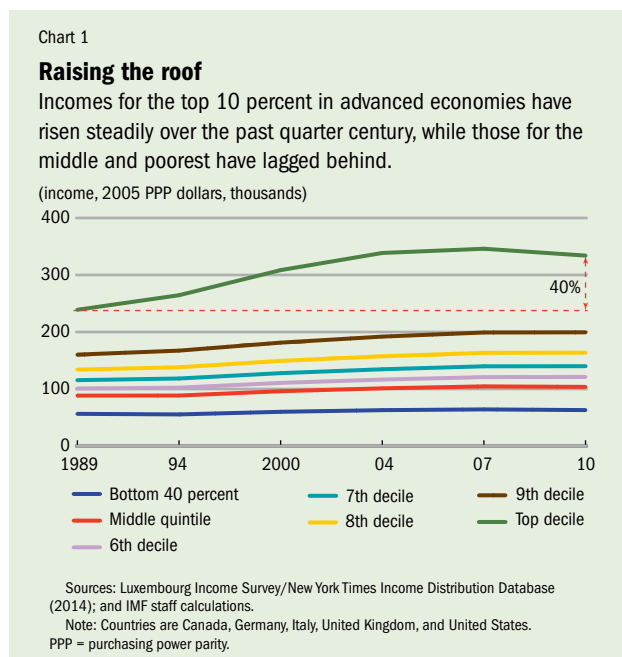
About the same time, China, which had begun to embrace the market in 1978, accelerated the process, in particular by authorizing more firms to engage in trade and lowering barriers to imports and exports. Other countries in the emerging world became more open to trade too, including several countries in Latin America hoping to put a near decade of debt-ridden low growth behind them and India, which implemented a wide-ranging reform in 1991. In many cases, openness to foreign direct investment and other types of financial flows also increased, further promoting exports.

These developments were widely welcomed at the time, and rightly so. They created a global trading system more extensive than at any other time in human history. They promised not only greater economic and in some cases political freedom for billions throughout the world, but also more buoyant growth driven by rising global incomes, consumption, investment, and innovation. Growth accelerated in many emerging market economies, in some cases raising domestic inequality as certain people proved more able than others to profit from the new opportunities. Still, for the first time, significant middle classes emerged in countries such as China and India.

But important distributional consequences of these global changes also became apparent, notably for advanced economy workers facing a sharply higher global supply of labor—much of it low skilled. As of 2000, China, India, and the Soviet bloc countries had contributed nearly 1.5 billion workers to the world economy, doubling its labor force (Freeman, 2007). Stolper-Samuelson reasoning suggests the increase in the global ratio of labor to capital would depress labor compensation relative to capital income in the advanced economies; this is likely part of the story behind both the long-term sluggishness of median wages and the fall in labor's share of GDP in North America, western Europe, and Japan. That process was reinforced by the decline of labor unions and the related rise in businesses' willingness to shift production to low-wage venues offshore.

Stolper-Samuelson logic also implies that low-skilled workers in poorer countries would see their relative wages pulled up while high-skilled workers would benefit in rich countries, lowering wage inequality in poorer economies and raising it in richer ones. But in fact the gap between the wages of skilled and unskilled workers rose for both country groups after the 1980s. Also contradicting the Stolper-Samuelson story was the tendency for such skill premiums to rise even within industries, with no evidence that industries in advanced economies were employing higher shares of low-skilled workers in response to the fall in their relative cost.

Many economists believe that the global evolution of the skill premium through the late 1990s is explained mainly by shifts in technology favoring higher-skilled workers—for example, the ICT revolution—another globally transformative and widely acclaimed change that accelerated in the early 1990s. But expanded trade could still have played a role, as exporting firms within industries have been found to use relatively more skilled labor than those that do not export, and increased trade would therefore feed the demand for skills. Another likely channel is outsourcing: shifts of low-



skill activities from rich to poorer countries can raise the skill premium everywhere (Feenstra and Hanson, 1996).

Since the early 2000s globalization, including full integration of China into the global trading system, has accelerated. Increased educational investment by emerging markets allowed greater offshoring of routinized manufacturing and service-industry tasks, as well as a surge in high-tech exports, notably from China. In advanced economies, middle-skill jobs have been disappearing—a phenomenon known as “job polarization.” While some polarization is attributable to trade and offshoring, there is also a possibly dominant technological component, as routine tasks become increasingly automated (Goos, Manning, and Salomons, 2014).

More progressive tax and transfer policies must play a role in spreading globalization’s benefits.

Only recently have enough detailed data accumulated to identify convincingly long-lived negative effects of Chinese imports and offshoring on employment in import-competing industries, local labor markets, and wages. Manufacturing’s share of the labor force has declined across the advanced economies due to relatively strong productivity growth in that sector. But the U.S. decline in the 2000s was especially sharp, in part because firms sent capital abroad to produce goods there for export back into the United States, including from China (see Chart 2).

If workers displaced from U.S. manufacturing can find reemployment at all, they must accept significantly lower wages, evidence shows (Autor, Dorn, and Hanson, 2016; Ebenstein, Harrison, and McMillan, forthcoming). The phenomenon of workers displaced by import competition suffering long-term wage losses and unemployment occurs in a broad range of countries, including emerging market economies. It is also a long-standing problem, exacerbated recently by aging advanced-economy workforces and the sheer size of the disruptions associated with China’s rapid export growth.

From safety nets to trampolines

More shocks on the scale of those that created the new global economy likely are not in the cards, but the political and economic aftershocks remain substantial, and similar—albeit smaller—disruptions will surely occur. What can governments do to head off protectionist policies while defending and extending the gains from trade?

In its 1989 report, *Adjusting to Win*, the Canadian Advisory Council on Adjustment contrasted “safety net” policies—which protect those subject to job loss, for example, through unemployment benefits—with “trampoline” policies that offer a springboard to new jobs (Trebilcock, 2014). Both are important, but trampoline policies—which include active policies like job counseling and retraining—help people adjust faster

when economic shocks occur, reducing long unemployment spells and the resulting depreciation of skills and employability. Such programs, which already exist in many advanced economies, deserve further study so that all can benefit from best practice.

Trampoline programs are helpful—and likely necessary—for all sorts of changes, not just those related to trade. It is hard to identify specifically trade-related job losses—and the economic case for government intervention to hasten movement of workers to new occupations is compelling whether the need arises from trade or other change in the economy. Policies that help people adjust include educational investments to create a nimble workforce, expenditure on needed infrastructure, investment in health, improved availability of housing, lowered barriers to entry for new businesses, and well-functioning financial markets. Such policies have the added benefit of also supporting growth.

Safety net programs have a role to play too. More open economies may be more susceptible to external shocks, and therefore require more extensive social safety nets. Governments can offer broader partial wage insurance for workers displaced into lower-paying jobs (Kletzer and Litan, 2001) and offer employers wage subsidies for hiring displaced workers. Programs such as the U.S. earned income tax credit should be extended to further narrow income gaps while encouraging people to work. More progressive tax and transfer policies must play a role in spreading globalization’s economic benefits more broadly.

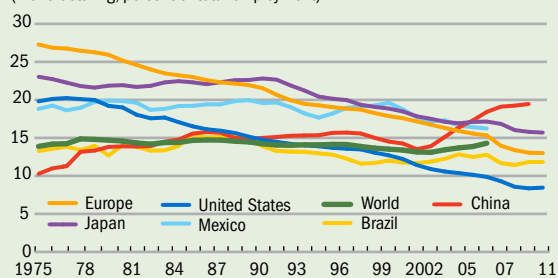
As increased capital mobility across borders has fueled international tax competition, governments find it harder to finance safety nets and adjustment programs without inordinately high taxes on labor or regressive consumption taxes. As a result, we need international coordination against tax avoidance to prevent the bulk of globalization gains from accruing disproportionately to capital. If these inequities continue unchecked, political support for trade will weaken further.

Chart 2

Trading spaces

Manufacturing as a share of advanced economies’ labor force has long been declining as those jobs move to emerging market economies or become redundant because of advances in technology.

(manufacturing, percent of total employment)



Sources: EU-KLEMS; EUSTAT; GGDC 10-Sector; ILOSTAT; National Bureau of Statistics of China; OECD; and RIETI CIP.

No guarantees

Globalization offers the potential of economic gains for all, but there is no guarantee that potential will be realized absent decisive government action to support those who suffer from the side effects. Years of seismic global transformation since the early 1990s, coupled with persistently low economic growth following the financial crisis, have left many individuals and communities behind. As a result, a backlash against further trade and trade liberalization is crystallizing in a number of advanced economies.

Trade and trade policies have not, however, been the only factors behind these changes—they probably were not even the most important—nor are they the reason for slower growth. Technological changes as well as idiosyncratic national developments also have played major roles. The political consensus that drove trade policy over much of the postwar period will dissipate without a purposeful policy framework that spreads the risks of economic openness; ensures flexible labor markets and educated, agile workforces; promotes job matching; improves the functioning of financial markets; and directly addresses inequality of incomes. This same framework is needed to address a range of other economic changes, which, like trade, can harm some and require adjustment within the economy.

Trade is special only in the illusion that governments can shut out the rest of the world when the world becomes inconvenient. In the 21st century, however, interdependence is not optional. ■

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A Two-Way Street

Policymakers must address economic and political issues to strengthen globalization

David Lipton

RISING doubt and discontent about globalization threaten the economic and political foundations of our international order. With much of that discontent focused on trade and openness, we risk a retreat from the cooperation that helped build an era of unprecedented prosperity.

World leaders must confront this issue head-on, beginning with discussion of the political economy underlying the current debate. The recent U.K. Brexit vote and U.S. elections stand out, but there are examples in many other countries. Slow growth, high unemployment, and rising income inequality since the global financial crisis are feeding the discontent.

The situation presents a unique challenge for economic policymakers, and for us at the IMF. For too long, our deliberations and decisions have not fully taken into account political ramifications.

The IMF can help strengthen both cooperation and policies.

We now see that politics and economics are a two-way street. We must grapple with today's complex political risks. But how we respond to the looming economic challenges of our time—slow growth, income and gender inequality, evolving technology, and demographic change—will profoundly influence the politics of tomorrow.

Today's risks include:

- Threats from within, such as dissatisfaction with the global order, that are at the forefront of the current debate. Popular dismay over lack of income growth, job loss, and social dislocation has upended the politics of many advanced economies with startling speed.
- Abuses such as corruption, favoritism, and mismanaged governance, which are destroying confidence in the democratic process and calling into question the legitimacy of the political and economic elite.
- Threats from outside the system: terrorism; the breakdown of nation states and the emergence of nonstate actors; refugee flows; and computer hacking and other cross-border crimes. Corporations have stepped into new and significant



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roles. They compile more data than any government; operate not only across borders, but also in the cloud; and use data to influence public opinion and behavior.

Meanwhile, the geopolitical ground is shifting under the international community. China and other emerging economic powers, such as Brazil, India, and Russia, are demanding a stronger voice and are moving to set up multilateral institutions that better reflect their growing weight in the global economy. Existing institutions—including the IMF—are adjusting to these new realities.

This is not a moment for business as usual. It is a time for leadership and international cooperation, which must go hand in hand. Many of

these seemingly intractable problems transcend borders, and national leaders would be hard-pressed to deliver what their people want without such cooperation. Cooperative mechanisms—in established multilateral institutions, via the G20 and other political forums, and even through new institutions such as the Asian Infrastructure Investment Bank—can help achieve the promise of globalization and limit its harm. Effective cooperation will help leaders thwart their countries' populist backlash.

We saw leadership through cooperation in the response of governments to the global financial crisis. Leaders adopted policies to put out financial fires at home and found strength in a new channel of government collaboration through the Group of 20 advanced and developing economies, the IMF, and other institutions.

Responding to today's challenges ultimately boils down to the right policies. We must focus first on stronger growth: a larger slice of the pie for everyone calls for a bigger pie. Second, more inclusive economic growth demands policies that address the needs of those who lose out from a financial crisis or technological change or globalization. Otherwise our political problems will only deepen.

The IMF can help strengthen both cooperation and policies. We can identify the economic policy changes that are needed in each country to build growth momentum, and perhaps do a better job of understanding some of the political ramifications. It is crucial that we resist the forces of fragmentation. Given the threats we face, the international community has more to gain from cooperation than ever before. ■



Immigrants arriving at Ellis Island, New York, in the early 20th century.

NEW CONCEPT Old Reality

Globalization is a recent term, but the internationalization of markets, people, ideas, and cultures is nothing new

Harold James

GLOBALIZATION triggers odd responses. Although almost everyone who thinks about it today agrees that a revolt against globalization is underway, many consider the fundamental process both inevitable and irreversible.

Is that true? A look back through history helps us understand the dynamics of revolts against globalization—the movement of money, goods, people, ideas, technologies, and cultures across frontiers.

The term globalization—in its modern meaning—was coined in the 1970s to describe the internationalization of markets, especially financial ones, after the oil price increases of the decade, but it reflects a much older reality. The recent period of globalization that seemed ascendant, at least until the global financial crisis, is but one of many such periods—and reversals—that dot human history.

The global financial crisis taught us that it is misleading—and dangerous—to rely on the analysis of economic “trends” derived simply by extrapolating a short data period. We don’t know how unusual or exceptional those data are. We’re also not aware of the complex nature of global interconnection. The shock of the unexpected crisis thus produced a new interest in looking at patterns derived from much longer time periods. Those older and longer patterns can highlight vulnerabilities that help us discover how we should adjust the institutional framework to make globalization more stable, less dangerous—and more just.

Past globalization

Describing the very dynamic global trade of the second half of the 19th and the early 20th centuries is now a standard part of economic historians’ repertoire (O’Rourke and Williamson, 1999). But that era was far from the only episode of



globalization. Archaeological evidence points to the global reach of trade during the Roman Empire, when Roman coins were traded as far from the Eternal City as the coastal regions of Sri Lanka and Vietnam. There were numerous subsequent expansions of global trade and finance. During many of them, ideas from classical antiquity and from the Roman age of globalization (and global rule) were revived, as in the economic rebound of the late 15th and early 16th centuries (the economic backdrop to the Renaissance) or the 18th century, during which improved technology and increased ease of communication opened the way for global empires (for Britain and France).

Technology and globalization are intimately related: we could even describe the phenomenon as “technobalization.” The worldwide interconnection of the 19th century was driven by the steam engine. In railroad locomotives, steam engines opened up new continents and allowed farmers to produce agricultural staples for markets far from home. The steamship then linked continents, and a dramatic decrease in transportation costs spurred market integration. The coordination of transportation required unified information, and the telegraph—which was able to span oceans in 1865, when the first stable transatlantic cable was laid—could relay the information that markets needed to know.

Thanks to communication technology—in this case the spread of print and the newspaper—people were also able to find out more about other countries and compare the harsh realities they experienced in their daily struggle for existence with a mythical El Dorado of abundance and happiness. They were prepared to take on tremendous hardships to make precarious voyages. With a note of realism, they often thought that the promised land might not materialize for them, but was a real possibility for their children.

Safety valves

But migration is more than a search for a better life by individuals. More broadly, it can act as valve to release social pressure in the countries migrants leave. Migration was an answer to problems brought about by technological changes—as well as by trade processes—that made whole categories of economic activity redundant. By migrating, individuals created new lives and new opportunities.

In the case of 19th century globalization, the movement of people away from the very poor periphery of Europe (eastern and Mediterranean Europe and Scandinavia) raised incomes. Especially in the case of Scandinavians, the rise in prosperity was dramatic. Thirty million migrants left Europe for the United States between the middle of the 19th century and the early 20th; some 6.5 million went to Argentina and 5 million to Canada. The share of the U.S. population born abroad was higher on the eve of World War I than it is today.

The political dynamic of emigration was captured by the economist Albert Hirschman—doubtless, in part, a reflection of his experience of flight from political and racial persecution in Nazi Germany (Hirschman, 1970). The easier it is to move (exit), the lower the commitment to the political

society in the country of origin (loyalty) and the less pressing the need to articulate ideas (voice). When exit is stopped, the demand for voice rises.

Recipient countries have an opposite dynamic. Entry produces loyalty, but also economic dynamism. A great deal of American entrepreneurship is—as emphasized by the late Thomas McCraw—a testimony to the inventiveness of migrants (2012).

Sometimes safety valves divert flows and cause flooding elsewhere: that makes migration very unpopular. Backlash against globalization often strikes at the previous safety valve of migration, which is what appears to be happening in many countries today.

Reversals

There are several historical explanations for the backlash against globalization.

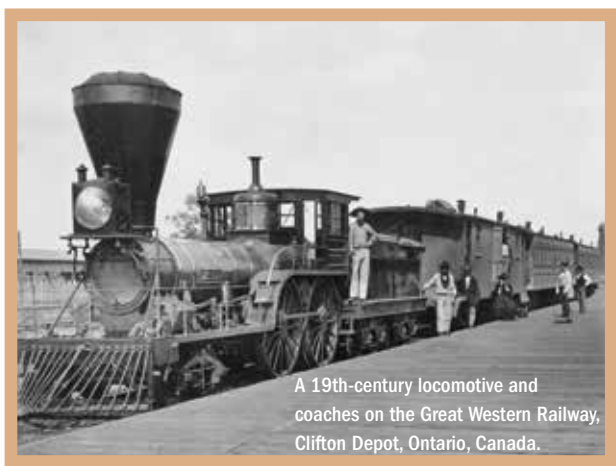
First is *that there is a simple psychological reaction to the unfamiliar*. People are sated with interaction; they withdraw from what is foreign and seek protection from global threats and devastation.

The topic of long-distance trade has often turned into a denunciation of unnecessary luxuries.

The topic of long-distance trade has often turned into a denunciation of unnecessary luxuries. Both the ancient Greek philosopher Aristotle and his medieval Christian successor Thomas Aquinas recognized that some products needed to be traded over long distances, but considered local production more moral, because they believed foreigners would disrupt civic life (Irwin, 1996). Roman philosopher Pliny the Elder complained that Rome was drained by expensive imports of unneeded luxuries from India, China, and the Arabian Peninsula, and poet Sextus Propertius complained that “proud Rome is brought down by her wealth.” Theologian Martin Luther, the seminal figure in the Protestant Reformation, railed against luxurious Italian products that were eroding German homespun goods. The American Revolution also began with a sort of antiglobalization revolt—against British taxes, but also against a luxury product (tea) of English multinational companies.

The backlash against migration has included nativism. In 1882, the U.S. Congress passed the Chinese Exclusion Act, which barred Chinese laborers from entering the country (and required all Chinese persons to present on arrival a certificate declaring their occupation). The law was regularly renewed (and finally repealed in 1943). Bills more generally limiting migration passed as well—and until World War I were regularly vetoed by the president.

History yields a second historical explanation: *globalization breaks down during financial crises*. Finance constitutes the



A 19th-century locomotive and coaches on the Great Western Railway, Clifton Depot, Ontario, Canada.

most volatile of the international linkages. Globalization magnifies the extent of financial crises. One finding of economic history is that during the 19th-century era of gold standard integration, more capital flowed between countries than during the limited financial interconnectedness in the two decades after World War II. But there also were more banking crises under the gold standard. In particular, the big financial crises of 1907 and after 1929 led to a new nationalism, and the financial crises were blamed on foreigners and foreign influence.

A third hypothesis is that *the volatility or breakdown of finance prompts discussion about the operation of the international system* and greater sensitivity to the power dynamics of the global stage. One crisis, in 1907, holds important lessons about the impact of financial crises but also about the way that finance can shift politics. After 1871, the world financial system revolved mostly around Britain and in particular the city of London. The panic of October 1907 showed the fast-growing new industrial powers, especially Germany and the United States, the desirability of mobilizing financial power. The crisis unambiguously originated in the United States, where a high demand for cash caused an interest rate surge that drew in gold imports. But it also caused interest rates to spike elsewhere, placing great strain on banks in Egypt, Italy, and Sweden, as well as in Germany—in short almost universally.

The 1907 experience convinced some American financiers of the need for New York to develop a commercial trading system that could handle securities to finance trade in the same flexible way as that of the mature and deep London market (Broz, 1997; Eichengreen and Flandreau, 2010). Paul Warburg was the central figure in the push for development of an American acceptance market (where short-term instruments, usually used to finance imports and exports, are traded). Warburg became a key player in the design of the Federal Reserve System, the U.S. central bank. He was the U.S. immigrant younger brother of a noted Hamburg banker, Max Warburg, personal adviser to the German autocrat Kaiser Wilhelm II. The two Warburg banking brothers on both sides of the Atlantic energetically pushed for German-American institutions that would offer an alternative to the British industrial and financial monopoly. They were con-

vinced that Germany and the United States were growing stronger year by year and that British power was falling.

Fourth, *global connections are destroyed by wars that arise out of tensions from a geopolitical landscape altered by globalization and also as a response to vulnerabilities and strategic interdependence*. A tradition derived from the French legal thinker and political philosopher Montesquieu sees commerce as breeding peace. The same argument was made by the great 19th-century British free traders John Bright and Richard Cobden. The most famous account of the “peace idea,” that “intangible economic forces are setting at nought the force of arms,” came from Norman Angell’s *The Great Illusion* (1913). Angell aimed to show how the character of rule and empire had changed as a consequence of economic interdependence. He saw in this a fundamental contrast to the imperialism of the Roman model, which relied on the extraction of tribute from subject populations. “Rome did not have to create markets and to find a field for the employment of her capital. We do.”

But interdependence made it possible to use the threat of systemic disruption as an instrument of power policy (Lambert, 2012). The complexity of networks in a globalized world and the way they can be used to propagate influence make them an ideal instrument in the struggle of powers. At the same time, strategies that use network power are not simple: the threat of disruption can easily come back to bite its originator. In World War I, all sides experimented with strategic disruption. Britain started the war with a major blockade, and in 1917 Germany went for unconditional submarine warfare, but in both cases the strategy backfired. By then of course it was too late.

Lessons of globalization

At each stage in the globalization cycle, we tend to extrapolate from current developments and to think that this particular phase will last forever—whether it is the confident upswing or the stagnation and anger of the downward movement. A break in the upward trend then produces profound disorientation and disillusion.

In the aftermath of the recent global financial crisis, a logic similar to that of a century ago drove German and American bankers not only to want to reform their financial institutions, but to think about a new financial and economic shape for the world. The United States, although the original epicenter of the 2007–08 financial crisis, pulled through better than other advanced industrial areas because of the depth and sophistication of its financial system. The experience has prompted broad discussion in Europe and Asia of ways to emulate the sophistication and robustness of the American system, just as Germans and Americans sought to learn from the model of the city of London and the Bank of England after 1907.

As was true a century ago, different parts of the world focus on various lessons taught by instability. For Chinese policymakers, the central focus is on giving their country a much greater role in trade finance, with a rapidly increasing proportion of foreign trade denominated in renminbi. The Chinese are reproducing their version of the American debate at the turn of the last century about the use of New York rather than London trade acceptances.

One lesson for Europeans is the need for a more secure asset and a better market for government bonds, which would involve moving to a standardized European security that resembles the U.S. Treasury bill. This is the equivalent of

A standardized security demands internal political and constitutional changes in the European Union

the German discussion of a hundred years ago in the wake of 1907. Many European economists, as well as outsiders, see the virtue of the early American experience, when founding father Alexander Hamilton built the new republic around a consolidated national debt. But a standardized security demands internal political and constitutional changes in the European Union that may be difficult to contemplate—just as full development of Germany's debt market in the early 20th century would have ultimately required much more extensive constitutionalization.

Zero-sum game

For some other countries, it appears that the primary lesson of the 2008 crisis is that the world is inherently a place of conflict and that the great powers are playing a zero-sum game in a struggle for hegemony (Rachman, 2011). It is hardly surprising that the targets of this intense financial diplomacy look around for alternatives to the dollar and the international financial system. As an immediate response to the financial crisis, Russian President Vladimir Putin, speaking in Sochi in September 2008, conspicuously revived French critiques from the 1960s of the exorbitant privilege of the U.S. dollar—that because of its status as the global reserve currency it is not subject to the same market constraints as other currencies. It is hard to explain Putin's position after 2008 in any way other than as a reflection of the lesson he took from 2008, which at the time seemed to be U.S. vulnerability. A major feature of the Chinese-Russian gas deal in 2014 was that the sales were not priced in dollars—which satisfied China's desire for increased prominence of the renminbi and Russia's goal of reducing reliance on the dollar in international commerce. Migrations too increase after financial crises and after destructive wars and conflicts.

A vision of hope

At the inaugural session of the Bretton Woods international monetary conference in 1944, then U.S. Treasury Secretary Henry Morgenthau expressed his vision:

“I hope that this conference will focus its attention upon two elementary economic axioms. The first of these is this: that prosperity has no fixed limits. It is not a finite substance to be diminished by division. On the contrary, the more of it that other nations enjoy, the more each nation will have for itself.... The second axiom is a corollary of the first. Prosperity, like peace, is indivisible. We cannot afford

to have it scattered here or there among the fortunate or to enjoy it at the expense of others.”

The French word “*globaliser*” has a rather different meaning than it has in English (when French people speak of globalization, they generally use the term “*mondialisation*”). *Globaliser* means to establish links between various issue areas: security and economics, for instance, or more generally between the assessment of different kinds of risks. At the end of World War II, in devising a new order for peace, the United Nations and the multinational economic institutions were designed with a deliberate symmetry: the five most powerful states were the five permanent members of the U.N. Security Council. These also had the five largest quotas, and permanent seats, at the World Bank and the International Monetary Fund. But the political and economic systems moved apart as the Soviet Union failed to ratify the Bretton Woods agreements and the Communist Revolution left the small Republic of China (Taiwan) at first holding the IMF seat. The People's Republic of China took over that seat only in 1980.

The vision of 1944–45 was all about linkages between political and economic areas. But the subsequent separation of the economic and political arenas made issues in both harder—or impossible—to solve. To try to do so requires a revival of the spirit that prevailed at the end of World War II in order to devise institutional settlement that has not only the technical means to soften the blow of financial crises but that can also bring countries together in more general agreement about shared ways of proceeding. ■

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Double-Edged Sword



A more integrated global economy is affecting workers around the world

John Powers, an electrician from Rices Landing, Pennsylvania, United States, switched careers thanks to a government program that helps displaced workers.

GLOBALIZATION shapes lives in countless ways. Driven by the mobility of people, capital, and ideas and aided by information technology, it brings opportunities for a better life to some, dislocation and hardship to others.

In this article *F&D* profiles six people on five continents who—for better or worse—have been affected by globalization.

Some are struggling. In the United States, one worker lost his manufacturing job because of foreign competition but managed to land on his feet thanks to government-funded retraining. In Switzerland, new technology and the strength of the Swiss franc are forcing traditional Swiss watchmakers to confront a dual threat—competition from trendy smartwatches and cheaper labor from neighboring France. In Burkina Faso, a farmer's ability to thrive in the global cotton market has fueled the economy's growth. Both his livelihood and Burkina Faso's economy, though, are threatened by competition from richer countries that can afford to subsidize production.

Others are benefiting—but the picture is often nuanced. In the Philippines, relatively low labor costs and a well-educated English-speaking workforce allow outsourcing companies to thrive. Peru has benefited from a dramatic rise in international copper prices, thanks mainly to China's insatiable demand for metal. And in France, previously disenfranchised workers in a rough Paris suburb are now able to find jobs because of the introduction of ride-hailing applications like Uber.



SECOND ACT

John Powers rises before dawn and travels 60 miles to his workplace in Pittsburgh, Pennsylvania. Some days, he doesn't get back until 9 p.m. after a hard day installing electric gates.

At age 60, the Air Force veteran earns \$12 an hour—and considers himself lucky just to have a job.

"I've had five places shut down on me or have forced reductions in my working career," Powers said on a recent Sunday, relaxing in an armchair by the fireplace in his tidy clapboard home in Rices Landing, a small town in southwestern Pennsylvania.

For generations, residents of Rices Landing and other communities along the banks of the Monongahela River were assured of well-paying work in coal mines and steel mills and the network of businesses that supported them, from equipment suppliers to power plants. That started to change in the 1980s, when the steel industry was decimated by overseas competition.

Today, the unemployment rate in Greene County, where Powers lives, is 7.1 percent, one of the highest among counties in Pennsylvania, which has a statewide rate of 5.7 percent.

Among the recent casualties of overseas competition was the zinc smelting plant in Monaca, Pennsylvania, where Powers worked for 18 years repairing machinery. The foundry, which recovered zinc from electric arc furnace dust in steel mills, fell victim to imports of inexpensive galvanized steel, which is coated with zinc.

The owner, Horsehead Corporation, started to lay off more than 500 employees, Powers among them, in 2013 and closed the plant the following year. To compete with imports, Horsehead built a lower-cost smelter in North Carolina and moved production of zinc oxide to a factory in Canada.

"It scared the daylights out of me," Powers recalled. "What was I going to do? I wasn't 25 anymore."

A counselor at the Pennsylvania Department of Labor persuaded him to take advantage of a federal program to help workers displaced by foreign competition. Despite his misgivings about accepting government money for tuition, he enrolled in Pittsburgh Technical College to be retrained as an electrician.



It was difficult going back to school. He took courses in speech, writing, and mathematics along with electronics and physics. “I struggled,” he said. “There were things that just didn’t sink in. I had to go over them two or three times.” In the end, though, he decided he loved learning and earned his associate degree in 21 months, with a perfect attendance record and honors for high grades.

“When I graduated I was proud,” says Powers, an easygoing man with a toothy grin. “I did something I never thought I would do.”

Powers landed a job at a company that installs fences, where he had earlier worked as an apprentice. His hourly wage is half what he earned at Horsehead.

Many of his former buddies weren’t as fortunate, he says. Some have lost their homes. One, who teased him for going back to school, now makes \$10 an hour as a laborer at a dairy farm.

“There’s just not a lot of money out there,” Powers said. “If you make \$15 an hour around here, you’re doing real well. That used to be a starting salary at the steel mills.”

He takes pleasure in his job, but the hard physical labor and long commute are taking a toll on Powers, who recently had surgery to replace an arthritic shoulder. In the past few months, he has applied unsuccessfully for more than 20 jobs closer to home, including one as head of maintenance at a municipal sewage-treatment plant.

Family ties keep him from looking farther afield. His father, an 84-year-old retired steelworker, still lives in nearby Beaver County, where Powers grew up. And Powers is engaged to be married, to Alisa Hatchett—a program supervisor at the state labor department who encouraged him to go to school.

All things considered, Powers says he’s fortunate. “Some people grumble,” he said. “I tell them, ‘The system did what it was supposed to do. It got you to school. Nobody’s going to guarantee you anything anymore. All they can do is help you.’ And they did.”

*Reporting: Chris Wellisz
Photography: Martha Rial*



TURBULENT TIMES

The watch industry has afforded Lionel Parmentier and his wife a comfortable lifestyle for the past 40 years. They live a stone’s throw from Switzerland’s renowned ski resorts, world-heritage wine regions, and the calm waters of Lake Geneva.

Almost a metaphor for the cozy economic cocoon in which Switzerland’s citizens are nestled, the watchmaker’s retail and repair shop, M. Parmentier, has meant four steady and reasonably prosperous decades for him and his family.

But that is not the case for the watch industry on which he depends, nor for his son, who followed in his father’s footsteps but is now out of work with, he says, little prospect of finding a suitable job.

Between 1995 and 2012, Swiss watchmakers rode a wave of growth, created by the seemingly insatiable demand for luxury goods from prospering emerging markets, particularly China. But demand from China has fallen markedly since 2012, and with it prosperity in the industry. Watchmakers

were dealt another blow in January 2015, when the Swiss National Bank allowed the Swiss franc to soar in value by 15 to 20 percent. That significantly raised the price of Swiss watches abroad—a terrible setback for an industry that exports 95 percent of its production.

The Federation of the Swiss Watch Industry reports that exports of wristwatches have dropped 5.6 percent since 2011. Even more dramatically, exports fell 12.4 percent between the first half of 2015 and the first half of 2016. That has resulted in layoffs at major players such as Cartier, Vacheron Constantin, and Piaget. The Swatch Group (with brands such as Omega and Tissot) reported a 54 percent decline in operating profits for the first half of 2016.

But if the famous watch industry is suffering, the rest of the economy seems to be doing fine. Its GDP per capita of \$60,500 is 8 percent higher than that of the United States (on a purchasing-power-parity basis). Other exports—notably of chemicals and pharmaceuticals—are growing, and the overall economy, stimulated in part by government consumption, is doing well. Wages are high and unemployment is low. Foreigners may not be buying Swiss watches, but there are still a lot of local customers coming to M. Parmentier.

But Lionel’s son, Raphael, lost his job during a recent round of layoffs at Compagnie Financière Richemont, whose



Lionel Parmentier in his shop, Lausanne, Switzerland.



brands include Cartier and Piaget. He had worked as a project manager in its dial manufacturing division for 10 years.

“The announcement came as a shock. We had just moved into a new building,” Raphael says.

Like many industry analysts, he is critical of the watchmakers’ strategic focus on the Chinese market. “I think to any outsider, it feels obvious that this is a dangerous way to do business,” he says. “They are very exposed to changes in the Chinese economy.”

Initially, Raphael, the father of two young children, felt confident he would pick up another job in the industry. But he soon discovered the entire profession was in trouble.

“The word I will use for finding a job in the industry at the moment is ‘impossible.’ The companies don’t hire many people anymore.”

Raphael blames cross-border commuters from France, who, he said, are happy to work for less pay. “In the carparks for these companies, all you see are French license plates. For the Swiss, it’s difficult to compete.”

Switzerland’s unemployment insurance system allows the younger Parmentier to claim about 80 percent of his salary for up to 18 months of job search. He has switched his career goals, setting his sights on Switzerland’s burgeoning space industry, where he believes his project management experience and technical skills will be a natural fit.

His father, though, is not about to give up on the industry that has been his livelihood for 40 years, even though the luxury market is threatened by smartwatches—which combine time-keeping with computer functions just as smartphones blend telephones and computers. The traditional wristwatch will endure, he says. A smartwatch “isn’t a watch; it is merely a screen. It’s not something you can pass down to the next generation.”

*Reporting: Celeste Gorrell Anstiss
Photography: Anastasia Vishnevskaya*

WHITE GOLD

Cotton, Burkina Faso’s second largest export after gold, provides 4 million growers with a living. One of them is Kohoun Yorossi, a farmer from the village of Kamandéna in the country’s west-central region.

Known locally as “white gold,” cotton accounts for nearly 40 percent of Burkina Faso’s GDP and, until 2009, represented close to 60 percent of its export earnings. Cotton farmers are shareholders in the country’s three cotton companies—SOFITEX, Faso Coton, and SOCOMA.

Under a blazing sun, Yorossi gives instructions to the driver of his tractor, who is applying pesticide to a field attacked by parasites. In his village in a region known as the country’s breadbasket for its agricultural potential, this 30-year-old has been farming 30 hectares—half of them planted in cotton—since 2002.

He earns, in an average year, more than \$7,500.

“With what I earn, I was able to buy a fully equipped tractor three years ago. I was also able to improve my standard of living. Before, we lived in old houses, but now the family is comfortable and everything is fine,” he says.

Between 2008 and 2010, however, Yorossi’s production fell by nearly half. Discouraged by low prices, some farmers—including Yorossi—abandoned cotton in favor of grain crops, while others cut back on the number of hectares planted.

Another devastating blow was the widespread switch to genetically modified, or Bt, cotton, following the arrival of



Kohoun Yorossi, of Kamandéna, Burkina Faso, opposes the agricultural subsidies of rich countries.

the U.S. firm Monsanto. Bt cottonseeds were sown throughout the country in 2009, after several years of experimentation. This new breed of cotton—which requires significantly less pesticide—held great promise for farmers, who had long struggled to keep their crops free of parasites.

“We are not asking them to stop helping their growers. We just ask that they honor their commitments.”

But farmers found that the genetically modified crops produced cotton with shorter fibers and a duller color, making it less attractive than conventional cotton on the international market and damaging the reputation of Burkina Faso cotton, long renowned for its quality.

“With GMOs, we had been promised the moon, but we ended up worse off,” he explains.

There are also broader issues. Burkina Faso’s increased dependence on cotton has exposed the economy to external shocks, such as drought, flooding, and declines in the international price of cotton, as the country has experienced in recent years.

To support the cotton industry, the government has kept the price of seeds, fertilizer, and other inputs at \$25 a bag and raised the price it will pay for a kilogram of seed cotton from 34 cents to 40 cents. That pleases Yorossi. This increase will cost the Burkina Faso government about \$53 million for a planted area of 800,000 hectares.

With this support from the government, a timely supply of the high-quality inputs he needs, and prompt payment for his cotton earnings, Yorossi hopes to do his part to help the country meet its production target.

But he has a bone to pick with his global competitors. Burkina Faso’s cotton exports face stiff competition from large-scale producers, particularly those supported by subsidies in countries such as the United States. Like many of his fellow farmers, he opposes such subsidies, which he feels destabilize local production.

There has been progress. In World Trade Organization negotiations, Africa’s “Cotton 4”—Benin, Burkina Faso, Chad, and Mali—have found support for an agreement that would curb export subsidies in rich countries and open up the market for cotton exports from the poorest countries. Countries such as Australia, Canada, Japan, Switzerland, and the United States and in the European Union have committed \$295 million in development assistance to Africa’s cotton sector—but as of mid-2016, less than half had been disbursed.

“We are not asking them to stop helping their growers. We just ask that they honor their commitments and allow African cotton to become a means of development for millions of poor people,” Yorossi says.

Reporting and photography: Tiegio Tiemtoré

GOOD CALL

When Rain Tan followed his colleagues in the hospitality industry into the fledgling call center industry in 2001, he did not imagine that it would grow into what it is today, the second largest source of foreign exchange for the Philippines and one of its largest employers.

When he joined the call center eTelecare, Tan, who was part of the team that managed hotel reservations at the old Mandarin Oriental Manila, was motivated only by the thought of being part of something new and exciting.

“I just thought at that time that it was an interesting setup,” says Tan. “I have also always been attracted to working at odd hours. I guess the industry then did not know where to recruit people. The hospitality industry seemed the closest fit, because they needed people who could work evenings and had customer service skills and facility with the language.”

Tan, then 24, firmly believed he had nothing to lose and everything to gain. “I felt I could always bounce back if I made a mistake,” says Tan, a marketing management graduate of De La Salle University in Manila.

Instead, joining the business process outsourcing industry turned out to be one of the best professional decisions he’s made.

Tan continued climbing the corporate ladder, moving from agent to team leader and finally to vice president for human resources of Convergys Philippines, one of the pioneers of the business process outsourcing industry in the Philippines and the country’s largest private employer.

According to the latest government data, the industry is expected to earn \$25 billion this year, from \$3.2 billion in 2006. In 2016, it employs roughly 1.3 million Filipinos, compared with 240,000 in 2006. This growing industry—which involves performance of specific business processes, such as accounting, payroll, or telemarketing—accounts for close to 8 percent of the country’s GDP; in 2006 it was 2.6 percent.

This share is expected to increase further because the Philippines is well positioned in such key indicators as an experienced talent pool; cultural affinity with the United



Rain Tan, from Manila, Philippines, has found his calling.

States, one of the biggest sources of outsourcing jobs; and the number of college graduates.

Given the growth prospects—still bright, government and industry officials say, despite newly elected President Rodrigo Duterte's recent tirades against the United States—Tan says that business process outsourcing companies must prepare the industry for the next wave of growth.

From voice services, such as customer support and sales of products and services, the Philippines must move up the value chain to capture a greater market share of nonvoice and higher-value-added services, including analytics and financial services, from countries such as India.

It has always been tough to hire enough qualified people. Aside from having to work at night and endure calls from angry clients, English fluency and the ability to talk to customers are basic requirements.

In an industry where jumping from one center to another is becoming more the rule than the exception, Tan says he stresses to his employees that they are contributing significantly to the economy and providing a valuable service worldwide.

It is these realities that keep Tan in his post.

"Clients have always said the level of service that we provide is the best they can find," Tan says. "We take care of people sincerely, and that is a brand we have as a people." But it is time, he adds, for the outsourcing industry in the Philippines to expand into new business areas, especially those that pay a higher salary for workers.

"In this game, the first entrant usually gets the biggest slice of the pie. So the sooner we get to the higher-value-added and sophisticated jobs, the better for us and the better for the country," Tan says.

*Reporting: Tina Arceo-Dumlao
Photography: Courtesy of Convergys One*

TAKING A SHINE TO COPPER

Walter Ascona is a mentor, both within and outside the copper foundry of Southern Peru Copper in Ilo, in the Moquegua region. He always encourages young people to speak up. "Don't be afraid to ask questions, because there is always something to learn," he says, recalling his own experience when he arrived in Ilo as a young man 41 years ago.

About to become a father, Ascona left the University of Tacna in his second year of mechanical engineering studies. He started working as a laborer, then rose quickly through the ranks. Today, at 63, he heads the foundry processes team.

He is highly respected inside the foundry and out. He served three terms as mayor of the Pacocha District while working afternoons and evenings in mining. For 15 years he was also a union leader at Southern and a member of the General Workers' Union of Peru.

Southern, acquired by Grupo México in 2010, is one of the largest copper mining companies in the world, accounting for more than 60 percent of Peru's national copper production. "Here, I learned about everything: camaraderie, friendship, how to ask, how to demand. I hope to continue working



Walter Ascona, from Ilo, Peru, feels the ups and downs of Peru's dependence on commodities.

here, because it is an essential part of my life," Ascona says. "Mining has provided me with a good living."

The company has not benefited just Ascona and his colleagues, it has also boosted the development of infrastructure in both Ilo, site of the processing facilities, and nearby Toquepala, where the mine is located.

Like Chile, Peru enjoyed strong economic growth as a result of the rise in international copper prices and the upsurge in copper exports to China. The Peruvian securities market tripled in size between the end of 2008 and the end of 2010, and in 2012 Peru was the world's third largest copper producer. But after the metals boom came the Asian collapse, and with it the metals crash, creating chaos in the global economy.

Globalization is necessary for Peru. But there are risks.

"In 2007, wages began to rise, and we workers—laborers and employees—had annual earnings of between 80,000 and 100,000 soles. We never imagined having so much money," recalls Ascona. "There was a multiplier effect, as cab drivers, businesses, and everything else benefited. But in a crash, everything also falls."

"We are part of the global economy," he adds. "We went from less than a dollar per pound of copper to \$4. We all

gained from it, our purchasing power grew, we consumed freely; the company got involved in social work and invested in it, too. But the bonanza didn't last, and now—with copper at just over \$2 a pound—we have to be careful. The company is still making money, but not as much. Same for us.”

Globalization is necessary, especially for a country like Peru. But there are also risks, and Ascona knows this. Nevertheless, he believes that Peru's leaders should commit to diversifying their economy so that the future of its people doesn't depend so heavily on mining.

“The collapse of copper prices blew up in our faces, and we weren't prepared; we need economic alternatives and strong political will,” he maintains.

Ascona also calls attention to another key issue: environmental protection. “I believe Peru should little by little promote investments that will not only provide economic growth but also generate sustainable development, with more jobs, more secure incomes, and fewer harmful effects on people and the environment,” he explains.

The father of three adult children and the eldest of six siblings, Ascona is greeted affectionately on the streets of Ilo. His family looks forward to the day he can retire, but he isn't thinking about that now. He keeps his white hard hat clean and ready for work, on whichever shift he's assigned. He is working—not just for Southern, but to keep Peru moving forward.

*Reporting: Alberto Ñiquen Guerra and Karla Chaman
Photography: Alberto Ñiquen Guerra*

ESCAPE ROUTE

It's only a five-minute walk from the “Périphérique,” a ring road that separates Paris from the millions of people living around the French capital. Yet it is a totally different world. Here in Aubervilliers, a town of 80,000 people that was once part of Europe's largest industrial zone, the unemployment rate is well over 20 percent. Many residents are of foreign descent and are struggling to make ends meet.

Over the past 15 years, the city of Aubervilliers and the French government have invested millions of euros in urban regeneration. Former factories have been transformed into fancy new office buildings and shopping centers. In September 2016, the U.S. transportation company Uber opened a service center there, for one reason: most of the drivers live nearby, in Seine-Saint-Denis.

Though under government scrutiny and harshly criticized by traditional taxi drivers, Uber became an instant success in Paris. In 2015, in Seine-Saint-Denis alone, 2,700 drivers joined the California start-up, almost 80 percent of the total in France. About 40 percent of them were previously unemployed.

The success of the Uber center was almost immediate: every day a long line forms at the entrance. Some visitors come to apply as drivers, others to get accounting advice or other services provided by Uber-selected partners. Still others are here to take advantage of the free courses Uber offers.

One such visitor is Farah Abdellah, a Moroccan immigrant in his 50s. For 23 years he had been making a good living as a director of production in the textile printing industry.



Farah Abdellah (left) and his fellow driver, Habib, from Aubervilliers, France, see the advantages of working for Uber.

About two years ago, his employer, Finishtex, went bankrupt, leaving Abdellah without a job. Uber now offers him a different path. “Becoming an independent driver is a great way to change my career. And this company has an international reputation, so I see only the benefits.”

To many French people, “ubérisation” is a dirty word. It stands for poorly paid jobs in a world where everyone is an independent contractor and no one is protected. Yet most people milling about this Uber service center have a positive view. “I want to start my own company, something I've always dreamed of,” says Abdellah. “I would really prefer to become an entrepreneur. I'll continue looking for work in my field of expertise.”

After his first day as a driver, Abdellah weighs in. “It was different than I thought. It is actually quite a challenge to be sitting in the car for a whole day,” he says. “It may be a temporary solution, but at least I'm working again.”

More than elsewhere, being an Uber driver in Paris has a social aspect. “A lot of our drivers never came into the city before they joined us. Now they get out of their grim neighborhoods and speak to Parisians from all backgrounds. It gives them a different perspective and more self-confidence: they realize that it is possible to escape the suburbs,” says one of the center's employees.

Uber may well be one of the largest job creators in Seine-Saint-Denis. Despite its promises, the government has not been able to solve the unemployment problem there. “Now this private company is doing the job the government should do,” explains Abdellah.

There's another, more subtle, reason suburbanites like working for Uber. The area's postal code, 93, symbolizes gritty housing, violence, and poverty. “A lot of the people you see here have been looking for work for a long time. When businesses see “93,” they simply throw our resumes in the trash, even if we're perfectly qualified,” says Abdellah, with irritation. “But not Uber.”

Reporting and photography: Stefan de Vries

No Worker Left Behind

The right policy mix means good jobs at home and abroad

Frances O'Grady

BRITAIN'S vote to exit the European Union has been widely interpreted as a retreat from globalization. The old political consensus that globalization is good for everyone is undeniably under pressure, with the Brexit result one expression of that. And while the debate in the run-up to the referendum centered on the movement of people through migration, the result brought into focus broader questions about the other two pillars of globalization—movement of goods and money across international borders. Areas of the United Kingdom in which manufacturing jobs have disappeared over the past 30 years overwhelmingly voted to leave the European Union; outside the more prosperous London and the southeast, fewer than one in seven local areas voted to remain.

Across the Atlantic, the impact of international trade on jobs and pay was an important part of the U.S. presidential election debate. So while some puzzle over the rise of anti-globalization, the more relevant question is why there has been relatively little debate about its winners and losers, and whether globalization can be reshaped to deliver for ordinary people.

Trade unionists have an important voice in these debates. We're instinctive internationalists, with a long tradition of supporting fair trading arrangements and multi-national cooperation. Our values also tell us to assess the strength of any idea, policy, or trend on the basis of its impact on working people's jobs, pay, and rights.

Assessing globalization first requires us to define it. One feature of the global economy over the past 30 years has been the significant increase in global trade volumes, with 1988–2008 seen as a “heyday of global trade integration,” fueled by the end of the Cold War, the entry of China into global markets, and the reduction of trade barriers around the world (Corlett, 2016).

But not only did the cross-border volume of trade in goods and services increase over that period, there was also a significant increase in the cross-border movement of capital. Many



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countries reduced or ended controls on capital inflows and outflows in the belief that this would help drive economic growth. So while the increase in the volume of global trade has been seen by many as inevitable—at least after China entered world markets—the increase of financial flows around the world was a clear policy choice.

How have working people fared following this significantly increased movement of goods and money? The period has coincided with an improvement in living conditions for many in poorer countries. Rapid economic growth in China, the most populous country in the world, helped

cut the number of people living on less than \$1.90 a day by more than a billion between 1981 and 2012. And, as economist Branko Milanović has shown, people in many poor countries have seen significant income gains.

Although it is laudable that absolute poverty has been relieved, as trade unionists, our objectives also include the pursuit of greater equality. And on that score, while inequality between countries has been reduced, within countries across the globe it has soared.

For example, although the United Kingdom now sees record employment rates, high rates of unemployment—averaging 11 percent between 1980 and 1988—left deep scars in terms of poor health and weak job prospects in many communities affected by the loss of manufacturing jobs. In 1980, jobs in manufacturing made up one in four workforce jobs; now it is fewer than one in ten (ONS, 2016).

Many manufacturing workers, including those in the U.K. steel industry, are still suffering from global competition. While increased exposure to Chinese markets has lowered the price of consumer goods in the United Kingdom, workers in industries in competition with China have suffered from longer spells of unemployment and lower pay, with the lowest-paid workers suffering most (Pessoa, 2016).

Working people's pay in the United Kingdom has been held back over time by a shift away from higher-skill and higher-paying jobs, including in manufacturing, to lower-



paying jobs in the service sector. But in recent years, it's been the impact of the financial crisis that has taken center stage, with the United Kingdom experiencing the largest fall in real average wages of any Organisation for Economic Co-operation and Development country except Greece. As suggested in "Neoliberalism: Oversold?" in the June 2016 issue of *F&D*, the claims that financial openness would lead to more stable growth appear to have been significantly overstated, with capital account liberalization leading to both increased economic volatility and inequality. The run-up to the financial crisis saw an unsustainable increase in *private* debt, not only in the United States, but also in smaller countries such as the United Kingdom, Ireland, and Spain, and an increasingly integrated financial system helped ensure that when the crisis came, it spread rapidly around the world.

But viewing the downgrade in workers' jobs and pay over the past 30 years as solely the result of globalization risks letting national governments off the hook. Domestic politicians have often given the impression that they are powerless in the face of global trends. But their policy choices have made a huge difference to the prospects for working people's jobs and pay.

Inequality in the United Kingdom grew rapidly in the 1980s (see chart), with sharp rises in incomes for those at the top, slower median income growth, and flat-lining for those at the bottom. Globalized trade and finance played a part, but widening earnings differentials were exacerbated in the 1980s by a series of tax and benefit changes. Redistributive action in the 2000s helped prevent the gap from widening further but was not enough to close it.

Most important for trade unions, attacks on collective bargaining rights progressively weakened one of the most important protections against inequality. Countries with a higher coverage of collective bargaining agreements enjoy lower wage inequality, including between high- and low-skilled workers, between women and men, and between workers on regular and temporary contracts (ILO, 2016).

So our first role as trade unionists in debates about globalization is to remind our own governments that they

have the power to improve working people's lives. That means encouraging the investment needed to bring back the high-quality jobs that have disappeared, and enabling and encouraging trade unions to continue their vital work in protecting rights and pay. To the extent that wages are converging globally, there are new opportunities for unions to combine across borders and ensure the gains are shared more fairly, as well as to speak out whenever and wherever we see unfair treatment of workers.

While inequality between countries has been reduced, within countries across the globe it has soared.

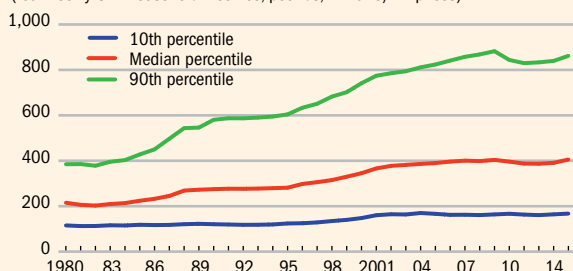
At the international level, we need to judge each proposal—whether for greater openness on trade or for greater cooperation on taxation—based on its likely impact on working people's jobs, rights, and living standards. We at the Trades Union Congress have strongly opposed the Transatlantic Trade and Investment Partnership (TTIP) on the grounds of its likely adverse impact on the equitable distribution of the gains of increased trade, on the public services on which many working people depend, and on the policy space for democratically elected governments to regulate for consumer, environmental, and workplace protections. But we still maintain that retaining the social dimension and access to the openness of the EU single market remains the best way for good British jobs to be supported once we leave the European Union.

Our insistence that things can be different needs to extend to the international level too. The welcome re-examination of capital account liberalization and fiscal consolidation has brought into focus the question of how global finance can better support the productive economy, and the desirability of an international approach that allows space for governments to pursue this within their own country. Many have seen the reforms of the Bretton Woods era after World War II as aiming at that goal, during a period when working people saw significant gains in their living standards. The trade unions played an active role in developing that consensus; our aim is to once again play a role in developing a globalization that works for working people. ■

More at the top

U.K. household incomes rose rapidly for those at the top and remained flat for the poorest.

(real weekly U.K. household incomes, pounds, in 2013/14 prices)



Source: Data from IFS Incomes in the United Kingdom available at www.ifs.org.uk/tools_and_resources/incomes_in_uk
 Note: Costs expressed as the equivalent for a childless couple using the Modified Organisation for Economic Co-operation and Development equivalence scale.

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A Spoonful of Sugar



Child care assistant plays with children at center in West Hoxton, New South Wales, Australia.

Florence Jaumotte, Ksenia Koloskova, and Sweta Saxena

High- and low-skill immigration both raise incomes and confer broad benefits on advanced economies

THE legend: Around the eighth century A.D., Parsis fleeing Iran after the Arab conquest sought refuge in India. When they arrived the local ruler presented them with a cup of milk filled to the brim, to signify that the land couldn't possibly accommodate more people. The Parsi leader responded by slipping sugar into the milk to show that strangers could enrich the local community without displacing it. They would dissolve into society like sugar into milk, sweetening but not unsettling it (*NPR*).

Today's reality: Migration has become a hot-button issue around the world, not least because of the recent surge in refugees. While newspapers are filled with photos of people fleeing their homelands, a large and growing population of migrants is already living in advanced economies (see Chart 1). Adult migrants make up 15 to 20 percent of the working-age population in many advanced economies, and 25 percent or more in some Anglo-Saxon countries, such as Australia, Canada, and New Zealand. They accounted for half the growth in the working-age population of advanced economies between 1990 and 2015, and the United Nations projects that without further migration, aging will further reduce the share of workers in most of those economies over the next decade.

After so many centuries, the question remains, do migrants sweeten the milk or unsettle it?

Costs versus benefits

Public sentiment in advanced economies is much more negative when it comes to immigration than to trade for two main reasons. First, people often perceive migration as a zero-sum game: they fear losing their job or having to accept lower wages. Most studies, however, find that the impact of migration on average wages or employment of native workers is very limited (for a survey, see Peri, 2014). Some studies, though, find that the wages of low-skilled workers do suffer (for example, Borjas, 2003; Card, 2001). Second, natives fear losing their cultural identity when migrants find it difficult to integrate. Surveys show that in Europe personal concerns over the compositional effects of migration—such as language and culture—matter much more to people than economic concerns such as jobs (Card, Dustmann, and Preston, 2012). Linguistic and cultural obstacles, combined with failure to recognize foreign education and experience—and in some cases implicit discrimination—can prevent the integration of migrants. Thus, there is no denying that in the short term there can be negative effects associated with migration—and sometimes the short term can be quite long.

In a new study, however, we show that migrants can bring significant long-term benefits to host countries through higher incomes per person and thus higher standards of liv-



ing. Hence, it may be worth shouldering the short-term costs of helping migrants integrate into the labor market and society.

The standard argument in favor of immigration is an increase in the share of working-age people in the total population, because migrants tend to be relatively younger than natives, especially in host countries where the population is aging. Therefore, there is more income to be shared among the population, including through taxes and redistribution policies. This is one channel through which migration increases income per person, but it is not the most powerful one.

The second channel is migrants' impact on output per worker, or what we call labor productivity, which is affected by immigration in various ways.

- First, immigration can lower labor productivity, at least initially, as the entry of new labor reduces the available physical capital per worker. The evidence, however, suggests that over time the stock of capital adjusts to the expanded labor force through more investment.
- Second, there is a perception that migrants are on average less educated than natives, which could also lower labor productivity. In fact, migrants are increasingly high and medium skilled, and in many countries, the share of high-skilled workers is higher among migrants than among natives.
- Finally, studies have shown that both high- and low-skilled migrants can have positive effects on aggregate productivity through various channels. For instance, *high-skilled migrants* increase innovation and boost the productivity of high-skilled native workers. But *lower-skilled migrants* can also increase the overall efficiency of the economy. They can do so by taking on jobs for which natives are in short supply, for instance in agriculture and nursing (complementarity of skills). Their presence can also encourage natives to add to their own education and take jobs that require more complex skills (upskilling), especially those involving language and communication, where they have a comparative advantage (for example, D'Amuri and Peri, 2014). A good example of complementarity is the “nanny” effect: when low-skilled migrants increase the availability of household and child care services, they enable native women, especially those with

higher skills, to participate more fully in the labor market (for example, Cortés and Tessada, 2011).

The question, though, is whether these effects are large enough to have a noticeable impact on the total productivity of the economy. Two broad cross-country studies have found that immigration has a large effect on income per capita and productivity (Ortega and Peri, 2014; Alesina, Harnoss, and Rapoport, 2016). We looked at the same question, focusing exclusively on advanced economies, where the number of migrants has been large relative to the native population and immigration is controversial. We found some key long-term effects of immigration on host advanced economies:

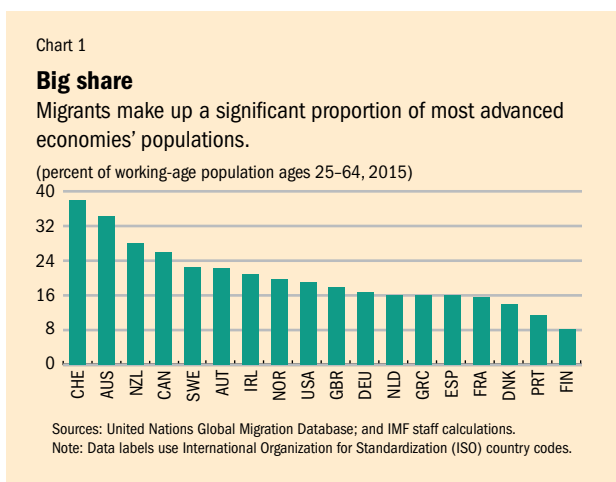
- In the long run, migrants help raise per capita income levels significantly, mostly through increased labor productivity.
- In addition to the benefits associated with highly educated migrants' productivity, there are similar benefits from low-skill migration, albeit via different channels.
- The gains from immigration are broadly shared across the population.

New evidence

To arrive at these conclusions, we use a new database that provides the number of migrants by origin and education level for 18 advanced economies at five-year intervals during 1980–2010. Econometric techniques allow us to examine the impact of the stock of migrants (overall and by education) on GDP per capita and labor productivity, controlling for other determinants of host countries' income levels, such as the level of technology, the education and age structure of the population, trade openness, and country and time fixed effects (a proxy for country- and time-specific determinants of income per person).

Studying the impact of immigration at the macro level presents challenges. It is difficult to disentangle immigration's direct effect on income per capita from possible reverse influences of income per capita on immigration—for instance, the fact that high incomes in advanced economies attract migrants or that high-income countries may control immigration flows more tightly. To address this issue, we construct a proxy for migration (an “instrumental variable,” in econometric jargon) based solely on factors independent of host economies' income level. These include “push” factors from the source economies—for example, poor economic and political conditions—and costs of migration as determined by geographic and cultural distance between host and source countries.

Using this approach, we find that migrants do significantly increase income per capita in advanced economies, mostly by raising labor productivity. Although lower than in previous estimates, the effect still tends to have a significant impact on the economy: a 1 percentage point increase in the share of migrants in the adult population can raise GDP per capita by up to 2 percent over the long term. Moreover, both high- and lower-skilled migrants appear to increase labor productivity. High-skilled workers bring



diverse talent and expertise. The contribution of those with lower skills is likely to rise the larger the complementarity with natives' skills. For instance, we find that when more low-skilled people enter a country more native women tend to enter the labor force, presumably because they are able to get household and child care help.

Some caveats are in order. On the one hand, the estimated effect is an average across countries, and for a particular country the effect could be sensitive to a number of factors, such as the type of migration (economic migrants versus refugees), the organization of the labor market, and the extent of complementarity between migrants and natives. On the other hand, the effect could be negative or smaller in the short run as the economy and capital stock adjust to changes in the number of working migrants.

An important question, though, beyond the average effect on income per person in a country, is how these gains are distributed across the population. If all the gains are captured by capital owners and companies' top executives, the broad population might not benefit and could actually be worse off.

However, our analysis suggests that the gains from immigration are broadly shared—even though workers in some occupations could be hurt initially (see Chart 2). Migration increases the average income per capita of both the bottom 90 percent and the top 10 percent of earners, even though high-skill migration benefits top earners more—perhaps because of stronger synergy between migrants and natives with high skills. Moreover, there is no evidence that immigration exacerbates inequality within the bottom 90 percent of earners.

A sweeter cup

Migration entails initial costs: integration can be slow, and some native workers may suffer. But there are long-term and economy-wide benefits, which are broadly shared. The key to harnessing these gains is to ensure the labor market integration of migrants (Aiyar and others, 2016).

A number of policies can help immigrants, including language training and job search support; recognition of their education and work experience; and easing the way to entrepreneurship. At the same time, mitigating policies

are needed to facilitate the adjustment of natives. These include, for example, helping natives upgrade their skills or reducing possible congestion in the use of public services such as health or education.

Migrants help raise per capita income levels significantly, mostly through increased labor productivity.

Japan is a good example of a country where immigration has been historically quite low, due in part to language and cultural barriers. Temporary immigration has picked up recently in response to shortages of labor as the working-age population falls, with companies providing training to immigrants.

Eventually, economic reality can overcome cultural resistance to migration, and a spoonful of sugar can sweeten the milk. ■

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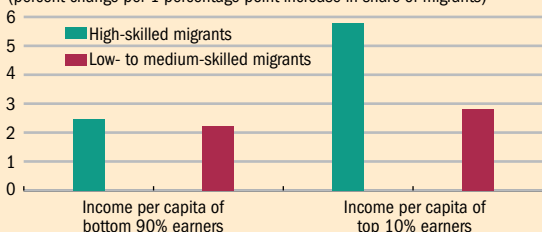
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Chart 2

A helping hand

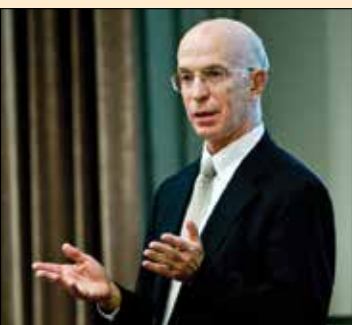
Migrants boost per capita incomes, both for the top 10 percent and for the bottom 90 percent earners.

(percent change per 1 percentage point increase in share of migrants)



Source: IMF staff calculations.

Note: Sample includes 18 advanced economies, 1980–2010.



Upside, Downside

U.S. policy should carry the ball for globalization by turning trade's gross losers into net winners

Alan S. Blinder

ARE you for or against globalization? It's a silly question, really, rather like asking whether you favor or oppose the daily sunrise. It will happen anyway. Your choice is whether to make the most of it, enjoying the sunshine and greenery, or emphasize the downsides, like sunburn and poison ivy. Or you can create your own fantasy by shutting yourself indoors, pulling the curtains, and pretending the sun didn't rise at all.

Some people seem to favor the last option. But nation-states don't have that choice. Historical and technological forces have been advancing globalization for decades—ever since the Great Depression and World War II temporarily but decisively reversed it. And these forces will continue, meaning that each country must decide how to maximize the upside of globalization while minimizing the downside—for there are both.

This, too, is nothing new. Economists since David Ricardo in the early 19th century have understood that international trade—perhaps the quintessence of globalization—creates winners and losers. And those who lose have been fighting globalization since before it had a name. They still are, but it's well past time that economists—much as we love the gains from trade—pay more attention to their complaints. They may be special pleaders, but losing your job is something special to plead about. They may want to stack the deck in their own favor, but if they don't, technology and trade will stack it against them.

Increasingly, the world seems to be split into two groups: those with the talent, proclivity, and perhaps plain luck to reap the benefits of globalization and those left behind. Bridging—really, mitigating—that gap may be the economic problem of our age.

Economists emphasize that trade is a positive-sum game: the winners' gains exceed the losers' losses. That's basically why we all favor freer trade. Net gains to the nation (indeed, to all nations) permit compensation: transfers from winners to losers. Arithmetic makes it possible, *in principle*, for everyone to come out a net winner. But that doesn't happen *in practice*. Transfers and other cushions are rarely large enough to turn trade's gross losers into net winners—even in western European countries with generous social safety nets. The United States barely tries.

Insufficient compensation has two main consequences. First, trade openings can exacerbate income inequality. Support for free trade runs a lot stronger among those with high skills and incomes than among lower-skilled workers. That's no accident: the overprivileged generally benefit

from globalization more than the underprivileged. Second, the losers from, say, trade agreements often oppose them because they don't expect to reap the gains.

Thus, there is both a fairness case (less inequality) and a political economy case (more trade) for offering more help to trade's losers. How? Precise answers differ across countries. Nations that already do much to help their workers cope with economic change—for example, with thick social safety nets, active labor market policies, extensive and effective job retraining programs, and high-pressure labor markets—may not need programs explicitly designed to help the victims of *trade*. But other countries may.

Net gains to the nation permit transfers from winners to losers.

The United States falls squarely in the latter category. The purpose of the Trade Adjustment Assistance Program (TAA), introduced in 1962, is to provide a special safety net for those who lose their jobs to trade. But it reaches very few displaced workers. It is also supposed to help people get back to work—for example, through retraining and moving assistance. But TAA seems to have favored *assistance* over *adjustment*. Other ideas, like wage insurance, have been discussed for decades—but not adopted.

The fierce recent opposition to globalization in the United States, evident in the past presidential campaign, is both ironic and important. It is important because the United States remains the world's leader in almost every respect. If it doesn't carry the ball for globalization, who will? It is ironic because the United States seems particularly well positioned to reap huge gains from globalization. Who else can provide the world's reserve currency? What other nation can match U.S. market flexibility, domestic competition, economic creativity, entrepreneurial zeal, and propensity for plain hard work?

These attributes and others make the United States an almost-sure winner from globalization. Better mechanisms to cushion the blows to the losers would help the whole country reap those gains. ■

Alan Blinder is Professor of Economics and Public Affairs at Princeton University and Visiting Fellow at the Brookings Institution.

For Richer, for Poorer

International trade can deepen inequality in developing economies

Nina Pavcnik

DURING the past three decades, developing economies have become ever more integrated into the world market. Fewer policy barriers to trade—combined with better communication and transportation—have helped companies reorganize and manage production facilities across borders, incorporating the relatively cheap workforces of developing countries.

These shifts are often blamed for growing inequality and the demise of manufacturing employment in developed economies and contribute to the current backlash against international trade.

In many developing economies, income inequality has also increased over the past three decades, especially in Asia. Pew Research Center polls indicate that 80 to 96 percent of people in emerging market economies such as Brazil, China, India, and Vietnam perceive inequality as a key problem facing their countries. However, only 1 to 13 percent of people in these countries view trade as inequality's main driver.

This public perception agrees with evidence from academic literature surveyed in Goldberg and Pavcnik (2007), which finds that trade has contributed to growing inequality in developing economies but is not the main cause.

The effects of trade on inequality within a country are complex, as trade influences people's earnings and consumption in several ways, and its uneven effects vary according to context. The nature of trade integration; how easily workers and capital move across firms, industries, and geographic regions; and where the people affected by trade fall on a country's income distribution all play a role. This article highlights some insight into these issues from recent studies of trade's uneven effects in several developing economies.

Earnings inequality

The usual gains from trade occur when countries specialize and trade reallocates workers from import-competing industries to exporting industries. This leads to lower earnings of workers in import-competing industries and increased earnings for workers in export-oriented industries, at least in the short run.

Trade's uneven effects on earnings also operate in other dimensions.

International trade can contribute to unequal earnings of comparable workers across companies in an industry. Firms differ in their performance, and those that do better are more likely to export. Two recent studies from Argentina

and Mexico find that winning firms benefit from new export opportunities and share revenue gains with their workers in the form of higher earnings (Verhoogen, 2008; Brambilla, Lederman, and Porto, 2012).

Developing economies are not in a good position to deal with growing income and opportunity inequality.

In addition, more highly educated workers in companies that export to high-income countries get an additional earnings boost, relative to less-educated workers. Why? Consumers in high-income countries often demand higher-quality products than those in developing economies. The production and marketing of quality goods, in turn, require more skilled workers or more effort, and the gap between the earnings of the two types of workers within a firm widens.

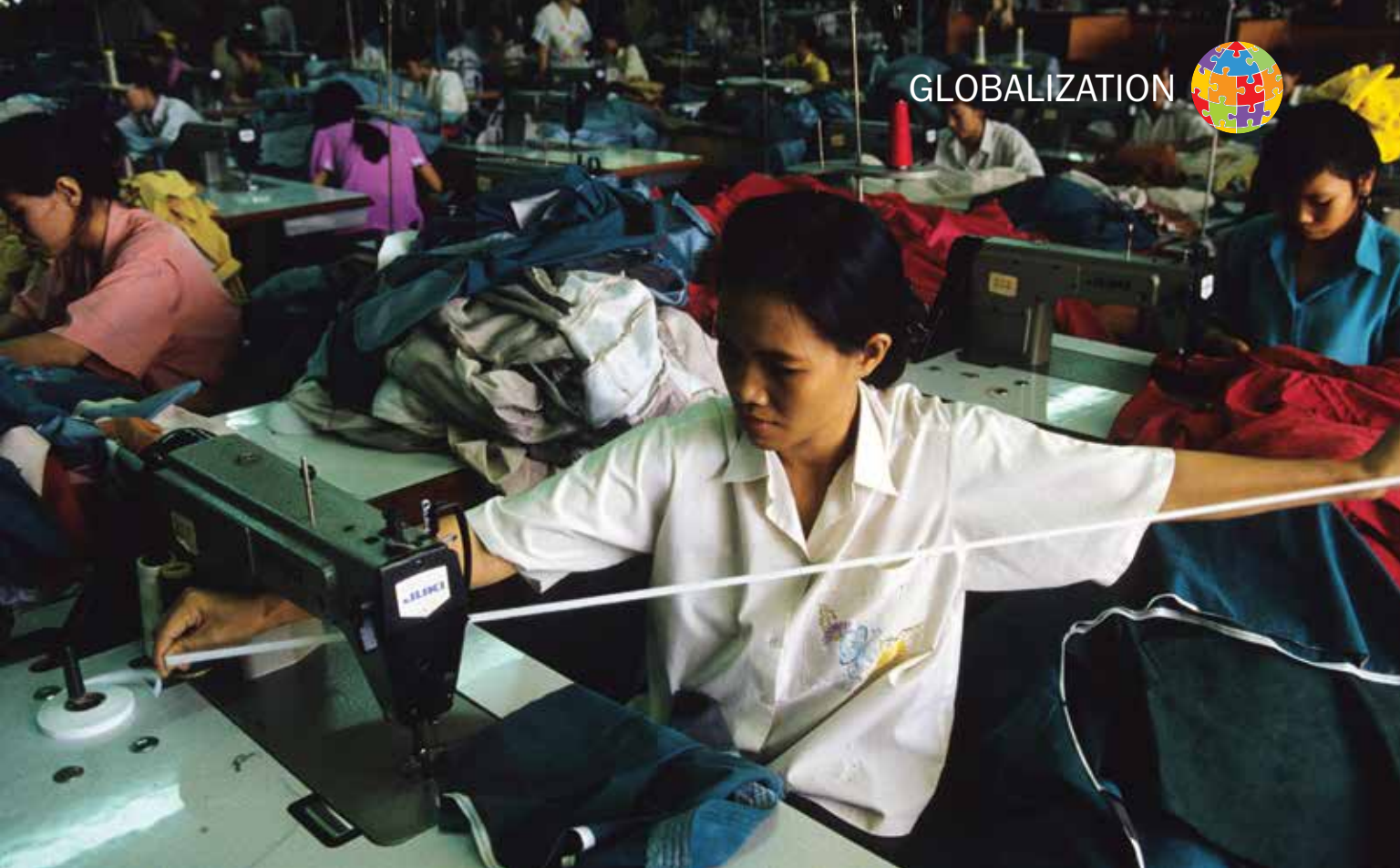
Importantly, trade affects earnings unevenly across local labor markets within a country, according to several studies.

Vietnam is a case in point. A 2001 trade agreement with the United States lowered the tariffs on Vietnamese exports by 23 percentage points on average. These tariff cuts varied widely across industries. Vietnam's provinces specialize in different industries, and employment in some provinces was concentrated in industries affected by large tariff cuts; in other areas few people worked in these industries. As a result, lower export costs affected workers differently across provinces.

One study finds that poverty declined more in provinces whose industries benefited from larger declines in export costs (McCaig, 2011). Poverty decreased because access to the U.S. market stepped up demand for local workers and raised provincial wages—particularly for workers with at most a primary education. Provinces that benefited more were richer to begin with, so as trade went up so did regional wage inequality.

The findings from Vietnam suggest that international trade generates an earnings wedge across regions within a country, a finding borne out in several studies. Some regions are more exposed than others to international trade because of variations in what they produce.

Earnings differences can be stubbornly entrenched because workers and capital do not move freely and there is little redis-



Garment workers, Ho Chi Minh City, Vietnam.

tribution between regions, particularly in developing economies. As a result, the effects of international trade on workers vary depending on how it influences the local economy.

The case of India

Consider the experience of India, home to a third of the world's poor when it began to liberalize trade in 1991. The reform had reduced quantitative restrictions on trade and decreased import tariffs on average from 87 percent to 37 percent by 1996. Petia Topalova (2010) looked at the effects of lower import tariffs across districts in India, which increased foreign competition.

National poverty declined in India during this period. However, the study finds that poverty decreased less in rural districts of India where there was more competition from imports. Relative poverty increased because tariff cuts reduced the demand for local labor, lowering industrial and agricultural wages and disproportionately harming poor households. Ultimately, families in the bottom 10th and 20th income distribution percentiles experienced the largest relative decline in per capita consumption.

Regional earnings disparities might be expected to dissipate over time as workers move from areas beset by foreign competition to higher-earning regions. But this did not happen in India. Migration was not affected by a district's exposure to trade reform—in fact, fewer than 0.5 percent of rural Indians and 4 percent of city dwellers moved for economic reasons in the decade after trade reform. Geographic mobility was particularly low for those with no education or from poor households.

So why didn't more people move?

Moving is expensive, and people often can't borrow in order to pull up stakes. In developing economies such as India, family and institutions such as the caste system are a kind of informal social insurance, which further inhibits mobility. Sometimes people just don't know that there are better job prospects elsewhere. And sometimes the skills and experience of workers hurt by import competition don't match those needed in expanding sectors in other regions.

It turns out that the effects of import competition on local labor markets can persist and worsen over time. A recent study examines how workers adjusted over two decades following Brazil's tariff liberalization, which reduced import taxes in the early 1990s (Dix-Carneiro and Kovak, 2015). As in India, the reform reduced worker earnings in regions with increased competition from imports. Unlike in India, however, inequality between regions of Brazil decreased, because the more affected regions were richer to begin with.

Surprisingly, the negative effects on regional earnings widened over time, but why?

Local earnings worsened over time because the demand for labor began a slow decline as company owners downsized or shut down local plants in response to import competition after capital depreciated. Less demand for services followed, depressing the local labor market even more. As was the case in India, the workers did not move out of regions depressed by import competition. Many of them ultimately found jobs in the informal sector.

The examples above illustrate that barriers to worker mobility contribute to the unequal effects of international

trade. Further work is needed to better understand the key barriers to mobility—whether across firms, industries, or regions—that keep people hurt by import competition from taking new jobs in expanding sectors.

Consumption: Poor versus rich

Integration into the global market benefits consumers in developing economies through the availability of cheaper imports. It also gives people access to goods not produced by domestic firms, including medicine and cell phones. And some of the benefits of these goods go beyond simple consumption. A farmer in Kenya can use a cell phone not only to keep in touch with friends and family but also to benefit from mobile banking and gather information about prices of cash crops in distant markets.

At the same time, the consumption gains from trade can be uneven and can differ substantially between the rich and the poor. The poor often spend a larger share of their budget on traded goods such as food and clothing than on nontraded services such as housing and education. A recent study of 40 countries, including 12 developing economies, suggests that the consumption benefits of international trade integration are proportionally larger for the poor, since international prices of traded goods on average drop more than those of nontraded services, which tend to be consumed by the rich (Fajgelbaum and Khandelwal, 2016).

But there are other considerations as well.

The effects might depend on the type of liberalization and the shopping patterns of households across income levels. Several middle-income and transition economies, including Mexico and Argentina, have recently opened their retail sectors to foreign retail chains, a policy move thus far strongly opposed in India. Mexico's experience suggests that while the poor benefit from the entry of foreign retail chains, they benefit less than richer families.

A forthcoming study finds that Mexican consumers at all income levels benefit from the entry of a foreign retail chain, because of lower prices, a broader range of products, and better shopping amenities, such as location and parking (Atkin, Faber, and Gonzalez-Navarro). However, the consumption gains were larger for households in the top 20 percent of Mexico's income distribution than in the bottom 20 percent because richer households were much more likely to switch to shopping in foreign retail chains.

Moreover, lower prices of goods at the border do not necessarily translate into lower prices for consumers in remote markets. The consumption benefits from trade are unequally distributed within countries because of poor internal infrastructure and little competition in developing economies' domestic wholesale and retail sectors. A recent study finds that consumers in remote areas of Ethiopia and Nigeria do not benefit much from imports because internal transportation costs and intermediaries with market power eat up most of the potential consumer gains (Atkin and Donaldson, 2015).

In sum, although consumers benefit, consumption gains from trade are uneven. Since poorer people in develop-

ing economies spend a large share of their income on traded goods, these aspects of inequality should not be overlooked.

Ensuring equality of opportunity

People in countries such as Brazil, China, India, and Vietnam appear committed to freer international trade, according to recent opinion polls from the Pew Research Center.

This does not mean that uneven effects of trade and growing inequality—whether caused by trade or by other factors—should be ignored. The current backlash against trade in developed economies such as the United States is a cautionary tale. At the same time, developing economies are not in a good position to deal with growing income and opportunity inequality. They spend less on education, have weaker social safety nets, and their people do not have equal access to public goods. Limited educational opportunities are particularly worrisome. Well-educated workers are in great demand in today's global economy and adjust more easily to negative labor market shocks.

The policy debate must focus on ways to put domestic institutions to work to ensure equality of opportunity, especially when it comes to quality education and geographic mobility, and to share the benefits of trade more broadly with those currently left behind. ■

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Zulu Sushi and Other Hopes

Globalization has offered little to Africa

Kumi Naidoo

AS an African I cannot oppose globalization: it gave me sushi. South Africa has fused this delicacy with the country's love of raw steak—"Zulu sushi," it is proudly called. Conceptually, globalization is our vision for Africa: economic, technical, and even culinary integration, applied worldwide. It can mean shared responsibility for the welfare of all humankind.

But this is not the globalization we in Africa have witnessed, which enriches the few at the expense of the many. In Africa today, it is a tale of foreign interests undermining domestic control.

Unfair rules

Initially young African nations hoped the Uruguay Round of multilateral trade negotiations would offer market access to the developed world. But the economic elite supported rules that favored advanced economies—and pressured African and other developing economies to obey (Kumar, 2002). Bilateral investment treaties and free trade agreements promoted by the richest countries entrenched their dominance and generated an uneven bargaining environment.

The rules are not working for us; they never have.

Thirty years later, the World Trade Organization members have yet to support inclusive and sustainable growth. The failure of the Doha Round last year symbolized the imbalance between developed and developing economies (Keating, 2015). Policies that protect industrialized countries, home to most of the rule makers, allowed them to grow into the giants they are today. But these economies need continuous feeding and—along with emerging market economies, including China—are now pursuing resources and markets in Africa.

Demand for Africa's resources has driven the continent's economic growth: over 5 percent a year on average for the past decade. But it has also spurred illicit financial outflows by foreign governments and multinational companies—\$850 billion between 1970 and 2008 (UNECA, 2015).

Policies behind this welcome growth entrenched inequality and poverty. During the past decade of trade liberalization and higher overall output, inequality *within* countries increased (Ortiz and Cummins, 2011). Workers competing for jobs in



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the global marketplace drive down wages, and competition between countries can mean social expenditure cuts and less progressive taxation.

Despite improvements in official global poverty figures in the past 50 years, 48.5 percent of Africans live on less than \$1.25 a day. Half a continent, half a billion Africans, live in absolute poverty, two-thirds live on less than \$4 a day, 90 percent are below middle class—those living on \$10 to \$20 a day.

Income doesn't tell the whole story. Africans survive on so little only because at least two-thirds depend on agriculture alone, with no way to improve their lot. And the wolf is at the door. Worldwide, more than 115 million acres of

farmland have been acquired by foreigners, mostly in Africa (Kachika, 2011). Such land grabs have left millions homeless or slaves on their own land and threaten the food security and livelihood of the poorest Africans.

Billions of losers

So our globalization is a story of very few winners and billions of losers; of unequal partners, inequality, and suppressed development; and of continued exploitation and exclusion. The rules are not working for us; they never have. But African governments don't dare question the system for fear of gambling away the financial well-being of their economies.

Africans must rise up and take back what is ours—demand that our governments be accountable to us first, expose corruption, eradicate poverty, and roll back inequality while combating climate change and honoring our beautiful, generous, and forgiving continent. ■

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Food Evolution

Increased agricultural efficiency and productivity are critical for future food security

More than 750 million agricultural laborers around the world produce the food that sustains all 7.4 billion people on Earth.

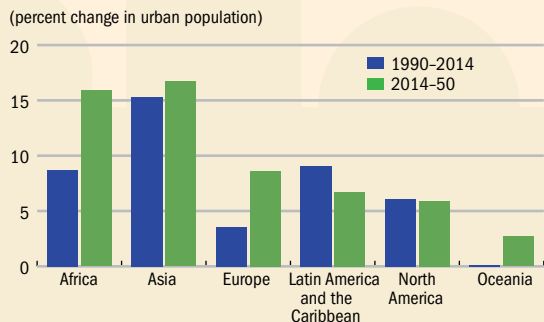
Although global food production can feed everyone, food security remains a problem in many places. Because most food is consumed domestically, markets and distribution are influenced by country-specific factors such as weather conditions, poor infrastructure, and poverty. Food is only a small portion of total global trade, but food sovereignty and protection of domestic farmers are longtime sticking points in trade negotiations.

Rapid population growth, largely in cities, has outpaced domestic food production in many countries, leading to increased reliance on food imports in several. Since 1990,

27 countries have switched from being net exporters to importers of food. Though not a problem for wealthy economies, some impoverished countries have struggled to finance the new imports. To add to developing economies' difficulties, the newfound need for food imports coincides with a nonfood commodity price bust that has reduced their export receipts.

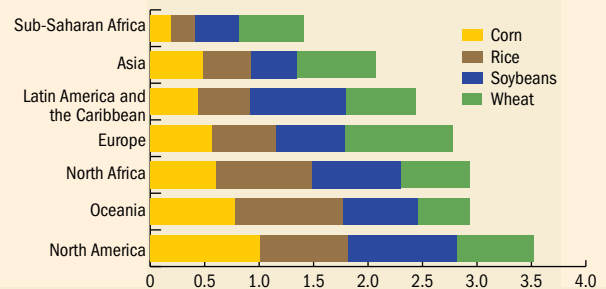
The number of countries that will face food insecurity will surely grow. If all currently available agricultural land were put into use by 2050, the world could feed, at best, only 9 billion of the projected 9.7 billion population. This esti-

Increased urbanization, especially in Africa, Asia, and Europe, will make countries more reliant on trade; some low-income countries may struggle to finance their food imports.

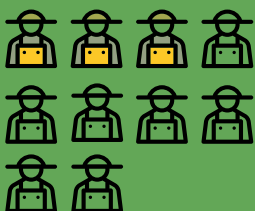


Sub-Saharan Africa has especially high potential to increase its food supply by increasing productivity in land now cultivated.

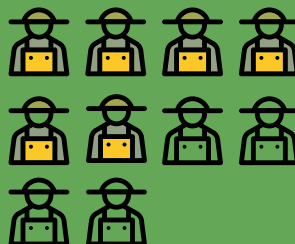
(agricultural yield, ratio relative to highest-yield region)



750 million laborers sustain the remaining 6.65 billion.



30%
of the world's laborers work in agriculture



60%
of sub-Saharan Africa's laborers work in agriculture

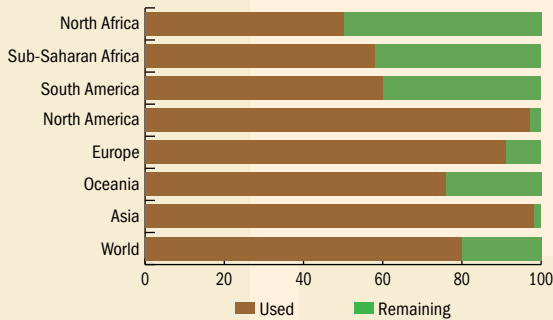
mate overlooks the downside of large-scale land use expansion: deforestation, biodiversity loss, soil degradation, and increased carbon emissions—all of which contribute to climate change and take a toll on crop yields and livestock productivity. Future food supply increases must come from greater productivity of land that's already cultivated.

Technology may help farmers increase yields of nutritious crops sustainably and efficiently. For example, genetically modified C4 rice uses water and nitrogen more efficiently and yields 50 percent more than conventional rice. But much of the world worries about the safety of genetically modified crops.

Food demand will continue to grow with the global population, and the move from rural to urban areas will mean more countries rely on trade to meet that demand. Rising incomes will boost the demand for meat, dairy, and fresh produce. Long-term solutions to food insecurity call for less excess consumption and food waste, removal of barriers to trade, and higher productivity. Low-income countries should also do more to attract capital flows and investment in the agricultural sector.

Though there is room for expansion, putting all available agricultural land into use is impractical because of various environmental and social concerns.

(used vs. remaining land suitable for agriculture, percent)



of all food produced for human consumption **(1.3 BILLION TONS)** is **wasted** every year.

Prepared by Maria Jovanović. Text and charts are based on the Commodities Special Feature in the IMF's October 2016 World Economic Outlook.

85% of food consumed in 2015 was produced domestically . . .
 . . . so food accounts for only **8%** of global trade



Hollowing OUT

Ali Alich

The U.S. middle class is shrinking as households climb into higher, or slip into lower, income brackets

THE U.S. middle class—households with 50 to 150 percent of the national median pretax real income—has been shrinking. Middle-income households declined by 11 percentage points (from 58 to 47 percent) of the total U.S. household population between 1970 and 2014. In other words, the U.S. income distribution has been polarizing, or hollowing out, as middle-income households became richer or poorer (see Chart 1).

From 1970 to 2000, this polarization was mainly good news because more households moved into upper-income ranks (with real, or after-inflation, incomes higher than 150 percent of the median) than slipped down to real incomes less than 50 percent of the median. Since 2000, however, the story has reversed. More middle-income households have fallen into lower-income than have risen into higher-income brackets.

Falling into a lower-income bracket takes a toll on households, especially at a time when average real incomes have been broadly stagnating. This hollowing out has damaged the economy in recent years by hampering consumption—the main engine of U.S. growth. Lower consumption in the world's largest economy also hurts its trading partners, as

well as many other countries indirectly tied to the U.S. economy through global production and financial chains.

Middle-class trends

A strong economy needs strong consumption and investment to function well. Low-income households have limited ability to consume and save little. High-income households save a lot but, relative to their incomes, consume too little. Middle-income households provide a reliable balance for consumption and saving in a society. In the United States, the middle class not only accounts for most of the economy's consumption, it also provides most of its human capital and owns most of its physical capital, such as houses and cars. So a shrinking middle class hurts the economy.

The 11 percentage point shift in the middle-class share of total U.S. households since 1970 represents, in part, economic progress; roughly half of these households advanced up through the income distribution, while the other half moved down over that span. But the long-term trend masks a deterioration since the turn of the century. While the majority of middle-income households that left the middle ranks moved up between 1970 and 2000, since 2000 only 0.25 percent of households

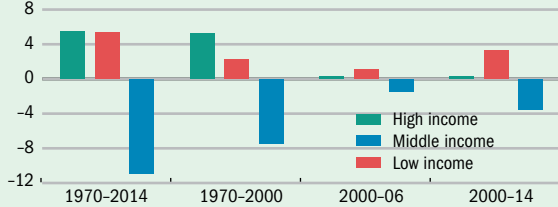


Chart 1

Hollowing out

The share of middle-income households in the United States has been shrinking since 1970.

(change in income-class share, percent of households)



Source: U.S. Census Bureau, Current Population Survey.

Note: Middle-income households are those with annual incomes, adjusted for household size, between 50 percent and 150 percent of the national median income. Above that range are high-income households and below it are low-income households.

have risen to higher-income ranks, compared with an astonishing 3.25 percent of households that have moved down the income ladder from middle- to low-income status.

Income share is a proxy for an income group's relative weight in the economy. At the same time the middle class is hollowing out, its share of total national income is shrinking. The income share of middle-income households fell from about 47 percent of total U.S. income in 1970 to about 35 percent in 2014. That decrease in the income of middle-income households corresponds to the increase in the income share garnered by high-income households. Meanwhile, the share for the lower-income households has been flat over the entire period—at about 5 percent of total national income. Low wage growth in recent years—partly a result of the drawn-out recovery from the global financial crisis but also because people weren't changing jobs—has also contributed to these trends (Danninger, 2016).

Inequality and polarization

Although growing income inequality has been studied extensively by economists, income polarization has not received as much attention. Income polarization measures the move from the middle of the income distribution out into the tails. Income inequality measures how far apart incomes at those tails are—that is, the income distance between the low- and high-income groups.

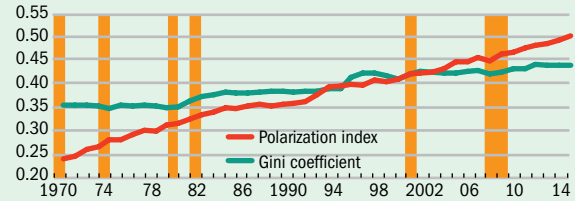
Income inequality is usually measured by the Gini coefficient, which gauges statistical dispersion in household income distribution. A similar index, developed to measure income polarization, is far less well known than the Gini coefficient. This index measures the relative population weight of households whose incomes are close to the extremes (poles) of the distribution. The polarization index varies between zero and 1. It is zero when all households have the same income. It increases as incomes of more households get closer to the two extremes of the income distribution and reaches 1 when some households have no income and the others have the same (nonzero) income. Chart 2 shows that polarization has grown faster than inequality since 1970 based on a comparison of the Gini and polarization indices. Moreover, while the Gini coefficient has been broadly flat

Chart 2

Fast polarization

Although the growth in inequality has leveled off, income polarization continues to increase in the United States.

(value for Gini coefficient and polarization index)



Sources: U.S. Census Bureau, Current Population Survey; and author's calculations.

Note: The Gini coefficient is a measure of income inequality. When the coefficient is zero each household has the same income; when it is 1 a single household has all the income. The polarization index measures the movement of income from the middle to the lower and upper brackets. It is zero when all households have the same income and 1 when some households have no income and the others have the same (nonzero) income. Income data are adjusted for household size. Shaded areas represent recession.

since 2000, the polarization index has continued to increase, suggesting that the hollowing out of the middle class in recent years may be socially and economically even more worrisome than inequality.

A broad-based hollowing out

We define the middle class as households whose incomes fall within 50 to 150 percent of median real income, but there are no easily agreed definitions of what constitutes the middle class. Our research shows that the hollowing out of the middle class appears to occur under alternative reasonable assumptions about which upper and lower bands around median income are used to define middle income—for example between 60 and 225 percent or between 75 and 125 percent of median income.

We adopted a relative definition of the middle class in which household incomes each year are compared with the median income of that year. Another definition could use absolute dollar salary cutoffs that are not necessarily the median income. The hollowing-out trends are also similar when absolute levels are used.

In addition, when households in the top 1 percent of the income distribution are excluded and when gauged across age, race, or education level, the results are similar: income polarization has increased substantially over the past four decades. The only exception is households headed by women; in this group polarization decreased somewhat since 1970, although in recent years, households headed by women have also seen increased income polarization.

The economy suffers

When households disproportionately move toward the lower end of the income distribution, as has been happening recently, there may be negative social and political repercussions. This downward move may also, and usually justifiably, be seen as unfair.

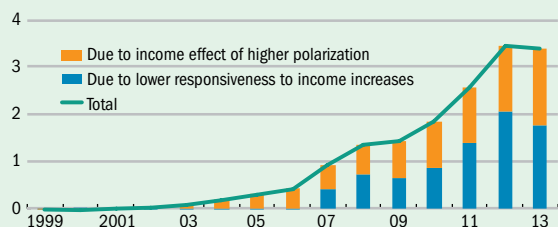
Polarization can also have important consequences for the economy overall. Since 1998, most polarization has involved middle-income households joining the low-income ranks. For

Chart 3

Lost year

The combined effect of income polarization and declining responsiveness to increases in income has shaved the equivalent of a year of total U.S. consumption growth since 1999.

(consumption loss, percentage points)



Sources: University of Michigan, Panel Study of Income Dynamics; and author's calculations.

the economy as a whole this downward movement has reduced income and resulted in a consumption loss. Polarization is estimated to have led to the equivalent of about half a year of lost consumption growth between 1999 and 2013—a cumulative 1¾ percentage point loss over the period (see Chart 3).

To make matters worse, recent evidence suggests that a similar increase in income for all households does not result in the same increase in consumption it would have triggered not too long ago—to use economists' jargon, the economy's marginal propensity to consume has decreased, despite economists' predictions that it would increase with more low-income households. This has put further downward pressure on consumption. The total consumption lost between 1999 and 2013 due to a lower consumption response to increases in income has also been estimated at about 1¾ percentage points—or the equivalent of an additional half-year of consumption growth.

We can only hypothesize about what has caused the increased polarization and its alarming consequences for the economy overall. Some of it may be due to policies regarding taxation or immigration. Technological progress and declining unionization may also play a role, as well as recessions. Future research should study these and other possible explanations.

Understanding the causes of polarization would help authorities come up with policies to break the pattern, ensure that most people see their standard of living improve over time, and tackle the social and economic consequences of polarization toward the lower end of the income distribution.

Global phenomenon

Although this article focuses on income polarization in the United States, hollowing out appears to be occurring in other countries too (see Chart 4). For example, in Canada and Germany, polarization seems more pronounced than in the United States in recent decades, while in France, Italy, and the United Kingdom, it appears to have slowed or decreased (Bigot and others, 2012).

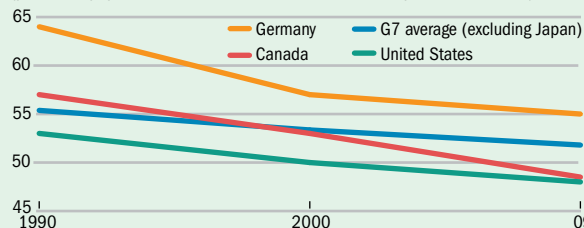
The data for emerging market economies are sparse, but the World Bank regularly calculates the polarization index for many countries, which generally show increased hollowing out over time. For example, the IMF (2006), using World Bank

Chart 4

Polarized

The middle class is hollowing out in advanced economies besides the United States.

(percent of population with income between 75 and 150 percent of median)



Source: Bigot and others (2012).

Note: G7 is the Group of Seven advanced economies: Canada, France, Germany, Italy, Japan, United Kingdom, and United States. The aggregate G7 data exclude Japan.

data, found that in all but one of nine Asian countries, polarization grew from the mid-1990s to the mid-2000s. The largest increase in polarization was in China and the smallest in Sri Lanka. Only in Thailand was there a decline during this period.

Hollowing out appears to be occurring in other countries too.

We studied U.S. data through 2014. But recently released income data show that in 2015 there was impressive broad-based median household income growth of 5¼ percent and a reduction in the poverty rate. However, this strong performance is unlikely to continue in 2016. First, a large proportion of the increase was in unearned income, partly due to higher direct and indirect subsidies under the Affordable Care Act, which increased the availability of health insurance. Such policies result in a one-time jump in income growth that does not continue unless policies change. Second, 2015 was a year of impressive job creation. As the U.S. economy approaches full capacity, job creation is expected to slow. Already through the first half of 2016, monthly payroll job creation was notably lower than in 2015, and average real wage growth decreased too. ■

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Flight from **QUALITY**

Man tending a vineyard in Perdriel, Mendoza, Argentina.

Natalie Chen and Luciana Juvenal

WORLD trade collapsed following the global financial crisis, declining 30 percent in nominal terms between the third quarter of 2008 and the second quarter of 2009. Even after adjustment for inflation, the decline was a massive 18 percent.

By another measure, the ratio of world trade to GDP, there was a similar dramatic falloff. That is because the crisis disproportionately affected trade in consumer durables and investment goods, which represent a large share of global trade, but a small fraction of world GDP.

But it appears that it was not only consumers buying less that helped drive down the value of global imports and exports. Focusing on Argentine wine exports, we provide evidence that the nominal (before inflation) value of global trade fell also because consumers bought cheaper, lower-quality goods rather than more expensive, higher-quality products.

The pinch of recession

When income goes down, as typically happens during a crisis or a recession, households consume less. Because some of what they consume is imported, the demand for foreign products—that is, for imports—also falls. Importantly, however, consumer belt-tightening may affect not only how much households consume, but also the *types* of goods they buy. In particular, because consumption of higher-quality goods is generally more sensitive to changes in income than that of lower-quality items, a sudden reduc-

tion in income (an adverse income shock in economist parlance) may lead to a “flight from quality,” whereby households in crisis-hit countries reduce not only the quantity but also the quality of the goods they consume. This, in turn, should lead to a bigger contraction in higher- than in lower-quality imports. We investigate whether the global financial crisis induced such a flight from quality in traded goods. In the case of wine made in Argentina, that turned out to be the case.

Measuring quality is a challenge because there is no single and comparable indicator across different types of goods. But we found a way around that obstacle by focusing on the wine industry only, where well-known experts regularly assess the quality of the products. We rely on those ratings as a directly observable measure of quality and combine them with a unique data set of Argentine producers that includes information on firm-level, destination-specific export values and volumes of individual wines. We find strong evidence of a flight from quality goods. In addition, our results suggest that the change in the quality composition of exports can explain up to 9 percentage points of the decline in Argentine wine trade value during the crisis period.

Spectacular performance

Since the early 1990s, the Argentine wine industry has grown spectacularly. By the mid-2000s, it was the fifth-biggest wine producer and eighth-largest wine exporter in the world. For the purposes of our analysis, we rely on

Argentine wine exports tell a tale of consumers’ shift to lower-quality goods after the global financial crisis

Argentine customs data. For each export, we observe the name of the exporting firm, the country of destination, the date of shipment, the value (in dollars), and the volume (in liters) of wine exported. The data set is very rich because for each wine exported we also observe its name (the brand), its varietal grape (such as Chardonnay or Malbec), its type (white, red, or rosé), and the vintage year. To assess the quality of individual wines, we rely on ratings from two well-known expert sources, *Wine Spectator* magazine and wine critic Robert M. Parker, Jr. Both assign a quality score to each wine—on a scale of 50 to 100—with a higher score indicating higher quality (see table).

We date the episode of the trade collapse by comparing month by month both the value of Argentina's total exports and of its wine exports (in nominal, or unadjusted for inflation, dollars). Both total exports and wine exports fell from their September 2008 peak until January 2009 and then began a slow recovery through the end of 2009. We date the start of the crisis period as October 2008 and the end a year later, in September 2009 (see chart).

The flight from quality was driven primarily by a crisis-induced fall in aggregate demand.

We then investigate whether, during the crisis, higher-quality exports fell more dramatically than lower-quality exports. We find that before the crisis, exports of higher-quality wines grew faster than exports of lower-quality products, but the trend reversed during the crisis, when exports of higher-quality goods fell more dramatically than those of lower-quality wines. On average, for each one-unit increase on the quality scale there was a 2 percentage point decline in export growth during the downturn. We also find that the collapse in the nominal value of exports for higher-quality wines was essentially driven by a drop in quantities shipped, rather than by a cut in prices—which shows that the financial crisis affected predominantly the real side of the economy. We make allowance for all types of shocks that could affect supply and demand for the wine, from overall economic conditions that are common to all wine exports to firm-level issues (such as productivity and credit constraints). We also account for destination-specific factors such as GDP growth, protectionist measures, and bilateral exchange rates.

Expert assessments

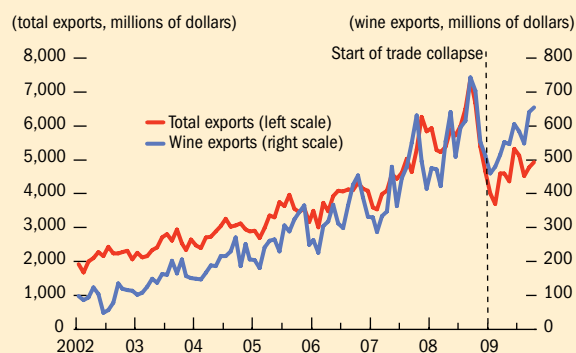
Two important assessors of wine quality, *Wine Spectator* magazine and Robert M. Parker, Jr., base their ratings on a scale of 50 to 100.

<i>Wine Spectator</i>		Robert M. Parker, Jr.	
95–100	Great	96–100	Extraordinary
90–94	Outstanding	90–95	Outstanding
85–89	Very good	80–89	Above average/very good
80–84	Good	70–79	Average
75–79	Mediocre	60–69	Below average
50–74	Not recommended	50–59	Unacceptable

Source: IMF, 2016.

Growth interrupted

Argentina's total exports and wine exports rose dramatically from the early 1990s until late 2008. They began to recover later in 2009.



Sources: IMF, *International Financial Statistics*; and Nosis.

There are various explanations for the sharper decline in higher-quality exports. First, we find that the flight from quality was driven primarily by a crisis-induced fall in aggregate demand. The exports of higher-quality Argentine wines fell more in destination countries that were more severely hit by the crisis, including the United States and the United Kingdom. Second, we find evidence that the flight from quality was more acute in countries such as France and Italy, where households could substitute domestically produced wines for imported products. We also find that the flight from quality was stronger for the exports of smaller firms, which are typically niche producers of higher-quality wines and tend to be hit harder when household incomes fall.

Finally, we find that after the crisis export growth recovered more strongly for higher-quality wines once the world economy started to recover from the recession. This suggests that the trade effects of the crisis were only temporary.

Alternate scenarios

To assess how much quality explains wine-export behavior, we evaluate how Argentine wine exports would have performed during the crisis under two different scenarios. Under the first, we assume that the quality of all exported wines had increased during the crisis to the highest level in our data set (that is, a score of 96). Under the second, we consider the opposite extreme and assume that the ratings of all wines had instead fallen to the lowest level of quality in the sample (68). These two counterfactual alternatives provide upper- and lower-bound estimates of the hypothetical performance of trade during the crisis as a result of changes in the quality composition of exports.

We derive the predicted values of export growth for each wine shipped to each destination and compare them to the predicted values obtained under each of the two scenarios. Under the first scenario, which assumes that all wines scored 96, we estimate that total Argentine exports would have dropped by 38.94 percent, nearly 2.5 percentage points more than the actual 36.53 percent. By contrast, under the second scenario, exports would

have dropped much less—by 30 percent. The two opposite scenarios therefore predict a difference in export performance of about 9 percentage points, which is not negligible. This suggests that the difference in export performance between countries that specialize in high- versus low-quality goods can be large.

Although we provide evidence of a flight from quality using firm-level data for traded goods, as in any empirical work, our analysis suffers from a number of limitations. First, because we focus only on Argentine wine exports, we are unable to address the possibility that consumers in crisis-hit countries shifted their consumption from more expensive old-world wines to less-expensive Argentine wines, which would have had ultimately kept Argentine exports from falling even more.

Second, because our analysis concentrates on a specific sector in a single country, we cannot be sure whether our findings apply more generally. But using different data sets and applying different methodologies, some studies (such as Bems and di Giovanni, forthcoming; and Burstein, Eichenbaum, and Rebelo, 2005) reach conclusions that are consistent with ours. This suggests that our findings are likely to apply to other industries and countries, in which case a number of macroeconomic implications can tentatively be drawn from our work.

First, by showing that the composition of trade shapes the way trade flows respond to economic downturns, our analysis can help policymakers and economists understand how various countries' exports are likely to perform during recessions. In particular, because richer countries tend to produce higher-quality products, exports from these countries could suffer dis-

proportionately during recessions (Berthou and Emlinger, 2010, show that countries specializing in higher-quality goods lose more trade during periods of global turmoil). Second, the crisis affected the volume of wine shipped more than the prices of the traded goods, which points to the large real effects of financial crises. Finally, our research has implications for understanding the distributional effects of crisis episodes: a flight from quality induced by a negative income shock can damage consumer welfare. More precisely, if consumers love variety, but also quality, a decline in the quality of products consumed reduces welfare. ■

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This article is based on the authors' 2016 IMF Working Paper, No. 16/30, "Quality and the Great Trade Collapse."

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Mountains of Cash

Switzerland bucks the global trend by maintaining a cash tradition

David Pedroza

THE Swiss are rarely late. But a new series of bank notes has been in the making since 2010. The new Swiss franc notes are finally being released, starting with the 50-franc bill rolled out earlier this year.

This latest series of Swiss banknotes arrives as alternative forms of payment are gaining popularity worldwide and cash, particularly in high-denomination notes, is being closely monitored to prevent counterfeiting and crime.

In Switzerland, however, tradition trumps trend. Cash remains the preferred method of payment and is unlikely to lose that position anytime soon. In fact, banknote circulation has increased from a nominal value of 40 billion francs in circulation in 2007 to more than 65 billion in 2015.



Fünfzig Franken
Schuncanta Francs

Front and back of the new Swiss 50-franc note.

“Despite rapid technological developments in the payments arena, cash has yet to be superseded; indeed, it is still a widely used and popular option in Switzerland,” said Swiss National Bank Chairman Thomas Jordan earlier this year.

A recent study by the Bank for International Settlements confirms this trend: the ratio of credit card payments to GDP in Switzerland is only 10 percent, compared with 25 percent in Sweden and 34 percent in the United Kingdom.

A thousand reasons

Other countries are eliminating high-value notes like the 10,000–Singapore dollar note and the 500-euro note from circulation amid concern over crime funding and tax avoidance. But Jordan says, “We’re not looking at withdrawing the 1,000-franc note. It’s used a great deal in Switzerland as a means of payment.” In fact, demand for the renowned 1,000–Swiss franc note—the second-highest-valued note in the world, after Brunei’s \$10,000 bill—soared in popularity when Swiss interest rates were cut to negative territory in December 2015. According to the Swiss National Bank, 45.2 billion Swiss francs in 1,000-franc notes were circulating in December 2015, up from 40.5 billion the previous year. The new series will include a 1,000-franc note.

As the sixth most traded currency in the world, the Swiss franc runs a high risk of counterfeiting. Nevertheless, it is one of the most secure banknotes in the world.



Front of current 1,000-franc note, and draft designs for the new 50-franc note.

Cash remains the preferred method of payment.

The Swiss National Bank says in its 2015 Annual Report that only 2,400 counterfeit banknotes were seized, or about six notes for every million in circulation.

But even the Swiss are not taking any chances and are relying on forward-looking technology to preserve a tradition of cash and high-value notes.

The new 50-franc banknote includes 15 security features to prevent forgery. If tilted in a certain way, it displays an outline of the Swiss Alps in rainbow colors. A Swiss cross, mirroring the national flag, is also visible from a particular angle.

In a nod to one international trend, the new Swiss franc note has a polymer core sandwiched between two layers of cotton paper. The new notes are expected to last at least 15 years.

Design thinking

The Swiss may not be in a rush to change the way they use banknotes, but it’s a different story when it comes to designing them. The new series has moved away from depicting well-known Swiss personalities in favor of more nuanced and abstract concepts.

Under the theme of “the many facets of Switzerland,” each note displays a different concept from a Swiss perspective. “Each characteristic is communicated via an action, a Swiss location, and various graphic elements,” according to the central bank.

The 50-franc note, which previously portrayed Dada artist Sophie Taeuber-Arp (the only woman in the old series of eight notes), now uses wind as the key motif to symbolize the wealth of experiences Switzerland has to offer, represented by a dandelion and a globe on the front and a paraglider traversing the Alps on the back. Other notes will embody time, water, matter, and language.

The new banknotes also include tactile features to help visually impaired people distinguish between the different denominations.

While the final design of the next banknote in the series remains to be seen—the 20-franc note is scheduled for release in 2017—it is safe to say that Switzerland will continue doing some things differently so that other traditions can be preserved. ■

David Pedroza is a Communications Officer in the IMF’s Communications Department.



SHOCKS to the PURSE

Governments must understand and manage risks to public spending and debt

Quake-damaged buildings in Christchurch, New Zealand.

Benedict Clements, Xavier Debrun, Brian Olden, and Amanda Sayegh

A key government task in managing public finances is to forecast how government revenues, expenditures, budget deficits, and public debt will evolve over time. Armed with this knowledge, policymakers can determine whether changes in tax and spending policy are needed to maintain overall economic stability.

Recent experience, however, indicates that public finances frequently evolve in unexpected ways. Adverse events often cause higher budget deficits and larger increases in public debt than anticipated. In other words, public finances are subject to “fiscal risks”—events that may cause fiscal outcomes to deviate from expectations or forecasts. These can arise from unanticipated macroeconomic developments (such as a slowdown in economic activity) or the realization of “contingent liabilities”—obligations that are triggered by an uncertain event. These can be either explicit liabilities that are legal in nature (such as government loan guarantees to farmers when there is a crop failure) or implicit liabilities, public expectation of government responsibility not established in law (for example, to bail out banks after a financial crisis).

A better understanding of fiscal risks and how to manage them is critical if countries wish to avoid large and unexpected increases in public debt that knock fiscal policy off course.

Fiscal risks

To examine the size and nature of fiscal risks countries have confronted, the IMF undertook a comprehensive survey (2016), looking at fiscal “shocks”—that is, the point at which

fiscal risks become reality and affect public finances—to government debt in 80 countries over the past quarter century. The survey confirmed that fiscal shocks are large and frequent, with countries experiencing an adverse shock of 6 percent of GDP once every 12 years on average and a large event—costing more than 9 percent of GDP—every 18 years on average (see chart). Because these figures are only averages, the size and frequency can vary greatly from country to country.

Fiscal shocks have a number of causes. Sharp downturns in economic growth (macroeconomic shocks) and financial sector bailouts have been the most damaging, averaging about 9 percent of GDP per event. But legal claims against the government, bailouts of troubled state-owned enterprises, and claims from subnational governments (such as provinces, states, or cities) have also imposed large fiscal costs—averaging about 8 and 3½ percent of GDP, respectively. While natural disasters, on average, cost about 1½ percent of GDP, these events are more frequent and the impact is much higher for disaster-prone countries. In some cases, fiscal costs have been considerably larger, such as after New Zealand’s Canterbury earthquake in 2010, which cost about 5 percent of GDP, and costs of 4 percent of GDP after the Great East Japan earthquake in 2011. Besides macroeconomic shocks, the majority of fiscal shocks have come from implicit, rather than explicit, contingent liabilities.

Despite the frequency and cost of fiscal risks, they are poorly understood and managed. For example, only about a quarter of the countries surveyed publish balance sheets (which detail assets and liabilities), and in many cases these

are incomplete. Slightly fewer than one-third publish quantitative estimates of the impact of changes in key macroeconomic variables—such as the exchange rate or inflation—on public finances, and fewer than one-fifth publish quantified statements of contingent liabilities.

Best practice

Countries should develop a more complete understanding of their fiscal exposures and put in place comprehensive strategies for their management. This involves a four-stage process of identifying the sources of fiscal risks and assessing their potential impact on public finances, assessing whether steps should be taken to reduce fiscal exposure, deciding whether to budget for risks that cannot be mitigated, and determining whether a larger safety margin (in the form of lower public debt) is needed to accommodate some or all of the risks that cannot be budgeted for or mitigated. The higher safety margin can allow countries to absorb most negative shocks to public finances without raising debt to undesirably high levels.

Identifying and quantifying fiscal risks: This involves assigning a number to their magnitude and, where possible, estimating their likelihood. For example, Chile, Colombia, and Peru use simulations to estimate contingent liabilities associated with minimum revenue guarantees to private contractors under public-private partnership arrangements. Sweden estimates price guarantees based on market and options pricing data, as well as simulations. When quantification is too difficult, risks can still be classified into categories (such as probable, possible, and remote) based on judgments about their likelihood.

Mitigating fiscal risks: The diverse array of potential shocks implies that there is no magic bullet to safeguard public finances and that a range of tools is needed. The choice of instrument depends on the nature of risks, the cost-benefit trade-off between mitigating and accommodating them, and institutional capacity. Mitigating measures can include direct controls and limits on fiscal exposures. For example, Iceland limits how much debt subnational governments can accumu-

late, and Hungary restricts the issuance of new guarantees. Those measures can also involve regulations or incentives to reduce risky behavior (many countries, for example, require banks to hold capital buffers against losses; Sweden charges risk-related fees to beneficiaries of government guarantees). In some cases, risks can be transferred to third parties—for example, by purchasing insurance (which Turkey has done for natural disasters). Governments in countries in which national revenues depend on commodities can also adopt hedging instruments to lock in the selling price ahead of time and protect against price declines. Mexico's catastrophe bonds are another way to transfer risks of certain natural disasters to investors. If a specified catastrophe occurs, investors forgive the Mexican government's debt. If the catastrophe does not occur, the government continues to pay out principal and interest, just as for an ordinary bond.

In some cases, eliminating all risks may be undesirable.

Budget provisions: Policymakers should incorporate in the budget expected costs of highly probable risks (for example, in the United States for credit guarantees and in Australia for student loan defaults); create a budget contingency for risks that are moderate and possible (for example, in the Philippines for natural calamities); and consider setting aside financial assets to meet the costs if larger risks materialize (for example, Chile's stabilization fund, which accumulates money when copper revenues are high).

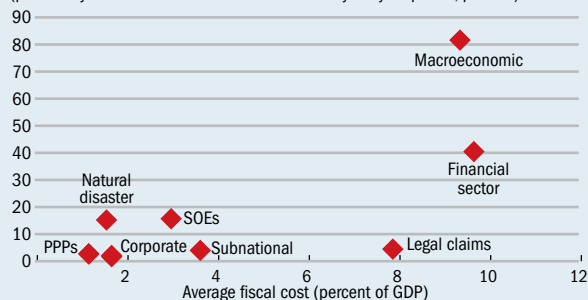
Accommodate residual risks: Some risks may be too large to cover, too costly to mitigate, or simply not precisely known. For example, some remote events (such as natural disasters that occur every hundred years) may be too costly to insure, or markets may not be liquid or deep enough for countries with large commodity exposures to hedge fully against all risk of a downturn in price. Governments should take these risks into account in setting long-term targets for government debt to allow a margin of safety while remaining within the debt levels defined by their fiscal rules. To get a sense of how big a margin is needed, it is useful to examine what potential swings in macroeconomic and fiscal variables could imply for the path of public debt. Because these variables cannot be predicted with certainty, countries might consider a probabilistic approach to predicting the path of public debt as a part of fiscal risk management (see box).

Countries also must develop more sophisticated and integrated approaches to analyzing fiscal risks. Governments should build on conventional risk analysis tools, which tend to focus on the impact of plausible and discrete shocks, and periodically subject public finances to a fiscal stress test similar to those used to gauge the health of the banking system. These tests would enable authorities to assess the consequences of various types of

Risk to reality

Costly fiscal shocks—such as natural disasters, economic downturns, and financial sector bailouts—occur frequently.

(probability of occurrence of a fiscal cost over any 10-year period, percent)



Sources: Bova and others (2016); and authors' calculations.

Note: PPP = public-private partnership; SOE = state-owned enterprise. Corporate refers to private, nonfinancial entities. Subnational refers to governments below the national level and includes states, provinces, and cities. Data cover 80 advanced and emerging market economies from 1990 to 2014.

Forecasting in uncertain times

Most fiscal forecasts begin with a baseline scenario that uses specific macroeconomic assumptions—for example, for economic growth. If macroeconomic developments differ from those assumptions, public finances will be affected. To get a good sense of the possible outcomes, it is useful to construct fan charts, which show different probabilities for the path of the debt-to-GDP ratio from an initial starting point. The basis for the probable paths are econometric estimates of the relationship between different macroeconomic variables and how past fiscal policy has reacted to those changes. In general, countries that have experienced greater swings in macroeconomic and fiscal variables will have a wider range of potential outcomes and more uncertainty.

This information can be useful for countries in managing fiscal risks. In the chart, for example, in a country with a fiscal rule that limits its debt to 60 percent of GDP, the initial debt-to-GDP ratio is about 40 percent. In the baseline forecast, the debt-to-GDP ratio is assumed to be about the same over the next six years. Based on this projection it would seem a foregone conclusion that this country would be able to stay beneath that 60 percent ceiling. But given the past variability of the overall economic environment and its effect on fiscal outcomes, there is a 15 percent chance that the debt-to-GDP ratio will exceed the ceiling in six years. Policymakers could use this information to decide whether they need to lower their cur-

shocks to key macroeconomic variables—such as interest rates, exchange rates, and housing prices. The authorities would have to take into account the interaction of the shocks and realization of related contingent liabilities on government liquidity, sustainability, and solvency. For example, fiscal stress tests could involve scenarios similar to what happened during the global financial crisis, when public finances were hit by the combined effects of a housing and financial crisis and a sharp economic slowdown. In a constellation of such shocks, spending for the social safety net can increase dramatically while national income, and thus tax revenues, fall sharply.

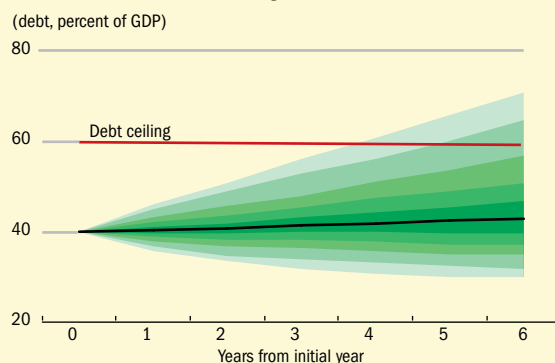
In designing strategies for managing fiscal risks, governments should also take into account the costs of mitigating them. This analysis must be informed by data on the probability of these risks, their macroeconomic consequences, and society's preferences. Some countries may prefer spending programs with a near-term benefit for the population (such as public investment), rather than provisioning funds to help address the consequences of possible natural disasters. And in some cases, eliminating all risks may be undesirable. Ending all risks to the financial system, for example, might require deposit insurance and capital requirements that would unduly stifle lending and economic growth.

Priorities differ

Efforts to strengthen fiscal risk analysis and management should take into account differences in countries' abilities to handle sophisticated monitoring and quantitative analysis of their fiscal risks.

Debt outlook

The potential for wide ranges in future debt levels occurs in countries that experience large swings in macroeconomic variables (such as economic growth) and fiscal policies.



rent 40 percent debt-to-GDP ratio to ensure that the country has enough of a safety margin to stay under the ceiling, taking into account the priorities of the government and how willing policymakers are to risk exceeding their debt ceiling.

For example, countries with limited capacity in this area should aim first to develop basic financial balance sheets, establish rules of thumb for public finance sensitivity to key macroeconomic variables, and better understand and disclose major contingent liabilities. Countries with higher capacity could focus on disclosing the size and probability of their contingent liabilities and on periodic stress tests to estimate their exposure to extreme events.

Fiscal risk mitigation strategies should also be tailored to capacity. Low-capacity countries should focus on limiting their exposure to guarantees, public-private partnerships, and other explicit contingent liabilities through direct controls and caps. Countries with higher capacity could make more effective use of regulations, incentives, and risk transfer instruments and recognize and provide for any remaining exposure to risk in their budgets and fiscal plans. ■

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Set the Tone at the Top

Ashraf Khan

GOVERNOR Bashir looks surprised and slightly amused when asked about the strengths of his central bank's board. The septuagenarian, a seasoned Somali public official, had never been asked that before. "Well," he says, pointing to his colleagues, "they want to rebuild the central bank. So they all wanted to join this session."

The session in question is an orientation course the IMF organized for the board of the Central Bank of Somalia in May 2016. The central bank in this war-torn country is struggling to set up its core functions. Among the extreme challenges it faces is a domestic currency that is nearly all counterfeit. Some might consider an introspective

board session the least of the central bank's concerns. But all seven board members, the governor included, eagerly participated in an assessment of the strengths and weaknesses of the bank and its board. It helped: clarifying roles and responsibilities of executive and nonexecutive members, brainstorming about strategy, and outlining internal reporting requirements (who gets what information when) rooted out inefficiencies. This allowed the board to devote the little time it has to matters requiring its full attention.

Somalia may seem to be an exception, but central banks all over the world are coming to see that change starts at home, and at the top. Central bank board members call some of the key shots in any country, and effective

Central bank boards benefit from the same critical reviews as company boards

decision making depends on the strength of those members. It is hardly surprising that their recruitment and selection are closely monitored.

Many will remember the Bank of England's bold step in September 2012, when it advertised the vacancy for its governor in *The Economist*. The desired applicant, the ad said, must be "a strong communicator, have good interpersonal skills and will be a person of undisputed integrity and standing." The quality of board members is a well-established and important component of effective board decision making, but it is hardly the only one. Since the global financial crisis, bank regulators have pushed for mandatory assessments of commercial bank boards in addition to existing requirements regarding work experience, background, and skills (so-called fit and proper requirements). Assessments often include a regular (say, annual) exercise, independently or with the assistance of external experts. These usually cover the board as a whole, its committees, and individual board members. The main goal is to improve the effectiveness and quality of actions by key decision makers. The global standard setter for commercial banks, the Basel Committee on Banking Supervision, published its revamped Corporate Governance Principles for Banks in 2015, including a section dedicated to board assessments. Similarly, central banks can also engage in board assessments—including of their policy, management, and supervisory boards—to improve the effectiveness of their decision making.

The business case

There are four good reasons for central bank boards to conduct assessments, just as their commercial colleagues do. First, the fields of psychology and sociology teach us that every group is made up of people—regardless of their institution or background—subject to the dangers of groupthink, hubris, dominance, and other such pressure. Behavioral economists, such as Daniel Kahneman, Cass Sunstein, Dan Ariely, George Akerlof, and Rachel Kranton, examined the effects of these psychological and sociological concepts in, for instance, the context of *monetary policy* decision making. In the past two decades, collective monetary policy decision making—for example, in the form of monetary policy committees—has overtaken singlehanded decisions by bank governors. A 2006 IMF study concluded that a properly designed committee is likely to improve performance when due attention is paid to greater diversity and a greater variety of viewpoints (Vandenbussche, 2006). The Bank for International Settlements noted that "Boards or committees for decision-making... are now very prevalent and have become the focus of a mushrooming field of research." (BIS, 2009)

But there is room for improvement. Though perhaps not as extreme as in the classic Hollywood movie *Twelve Angry Men* (which captured the complexities of consensus building in the context of U.S. jury deliberations), when people are pressed for time and must deal with complex problems whose consequences are far reaching, fair and balanced decision making can suffer. In 2014, the Central Bank of the Netherlands conducted one of the first central bank board

assessments in the world. The governor and the executive board set up an independent assessment of their interaction and performance. They hired two external experts with backgrounds in sociology, group dynamics, and more traditional corporate governance. Using interviews and questionnaires, these facilitators helped the board think about its strategy and vision, as well as practical ways to make board meetings more efficient. One concrete outcome was replacement of top managers' general board meetings with topic-specific strategy sessions.

Board assessments can do more to promote gender diversity than simply setting quotas for women.

A second reason for assessments is the complexity of central banks. They implement a wide variety of mandates, including price and financial stability, but also financial integrity—sometimes consumer protection, and in many emerging market economies the all-encompassing yet vague "development objective." Because central banks operate in a rapidly changing environment, it makes sense *especially* for these kinds of institutions to focus on continuous assessment and strengthening of their top decision makers.

Third, central banks should lead by example. Central banks request commercial banks to follow the highest corporate governance standards, including annual assessments of their boards. Central banks should be bound by the same standards. In Seychelles, for instance, the central bank is undertaking efforts to ensure it can lead by example, including in the area of board assessments.

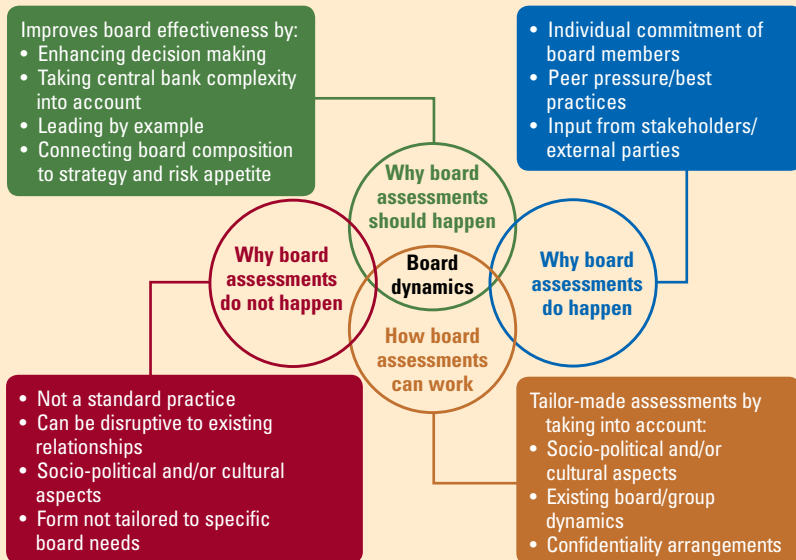
Finally, board assessments can also help to promote diversity more than simply setting quotas, and thus improve Board decision making. On gender diversity, for example, recent studies found associations between women board members and higher risk aversion (see, for example, Masciandaro, Profeta, and Romelli, 2016). Board assessments focus on a board's strengths and weaknesses and can define areas of competency or background requirements for board members, qualifications that fit the bank's vision, policies, and risk profile—rather than setting quotas. Boards must decide how much risk is acceptable and must ensure its members mesh with the central bank's strategy, policies, and risk appetite. What matters is the best *people* for the job.

Tips, tricks, and traps

Board assessments can backfire, though. Group dynamics, and human interaction in general, are sensitive. Forcing a board to assess itself can bring to light personal preferences, ideas, and even biases that can make people uncomfortable. If there is tension between the governor and another board member, they might be reluctant to have this discussed in an assessment, even though these are typically not disclosed outside the board. Moreover, a central bank board could in-

Put board members in charge

Board assessments should take place, but they often don't.



Source: Based on Ingley and van der Walt (2002).

clude representatives from various groups and regions, which underscores the importance of the sociopolitical context and how it can strongly influence group dynamics and hinder proper assessment. Board members responsible for internal audit, the chair of the audit committee, or a lead nonexecutive director are good candidates for the role of facilitator. The head of the internal audit department, given his or her independent position, could also be suitable, as could a board secretary—but much depends on their personal standing and status vis-à-vis the board members. An internal facilitator must not be seen or treated as a subordinate.

Boards can also choose an external facilitator. Board members would still have to prepare and follow up on the assessment, but the actual facilitation (and pre-assessment analysis) would be conducted by the external expert. This person needs to be trusted by all board members and enjoy a certain amount of independence, as well as having the skills needed to truly facilitate—for example, a retired politician, a renowned academic, a senior staff member of an international organization, or even a peer from another central bank.

Some central bank board members say that they already have internal oversight. Central banks often have nonexecutive board members or a separate oversight body, and most have internal and external auditors. Some are subject to other forms of external oversight, either by an institution such as the auditor general or an independent evaluation office. But formal oversight is always different from an assessment with and by the board. Formal oversight ensures that the bank's executive management conducts its business properly, and guarantees accountability to the bank's stakeholders (government, the financial sector,

international institutions). A board assessment, however, is a moment of introspection, of strengthening the ties between board members and boosting the effectiveness of *collective* decision making. Formal oversight can provide input, but a board assessment puts the board members themselves in charge (see chart).

Future developments

In some countries assessments have clearly improved board decision making by clarifying roles and responsibilities (for example, Somalia) or by enhancing internal organization (for example, the Netherlands). In other countries board assessments have been a role model for the financial sector (for example, Seychelles). Central banks that have already conducted board assessments should share their experiences with their colleagues on other central bank boards, in particular their close peers. International institutions and standard setters

should see central bank board assessments as an additional corporate governance tool. Fit and proper criteria for board members and transparency and disclosure arrangements will all benefit.

Board assessments call for awareness among central bankers—that assessments are not a mindless check-off-the-box exercise, window dressing, or the governance equivalent of the board's annual outing and dinner. They are a powerful tool that, used correctly, can strengthen the decision making of one of the most respected public institutions. As Peter Drucker (Drucker, 1973) said, "Long-range planning does not deal with future decisions, but with the future of present decisions." Central bank board assessments can ensure that central bank decision making is, and *stays*, on point. ■

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Holiday Cheer



Jonathan Tepperman

The Fix

How Nations Survive and Thrive in a World in Decline

Tim Duggan Books/Crown, New York, 2016, 320 pp., \$28 (hardcover).

We live in a moment of global trepidation, beset by economic, political, and social problems that are perceived as insurmountable. We see severe inequality everywhere and frequently getting worse over time. Extremists of various kinds prove persistent and very dangerous. And sustainable economic development proves frustratingly elusive.

Jonathan Tepperman provides a refreshing and timely challenge to the idea that any of these problems are insurmountable. In a wide-ranging and detailed analysis, he reviews 10 situations in which strong leaders were able to address specific issues—such as corruption in Singapore, immigration in Canada, poverty in Brazil, and many more—with impressive and lasting results.

These are important stories and Tepperman tells them well. As managing editor of *Foreign Affairs* magazine, the author has access to high-profile figures and has dug deep into both the news coverage and the underlying research (full disclosure: he cites some of my work). The book is easy to read and each chapter is thought provoking. I teach a course at

the Massachusetts Institute of Technology on the future of the global economy, and I plan to use some of this material in future years. This is also a great book to give to friends and relatives during the holiday season—if you would like to be seen as an encouraging, yet realistic, member of your social network.

As part of that conversation—and not to disparage Tepperman's research or his eloquence—I would suggest three themes around which we should all become more engaged.

First, *The Fix* highlights three lasting economic success stories—countries that have dramatically improved incomes per capita over the past 50 years: Singapore, South Korea, and Botswana. These are salient and instructive examples. But how well do these models travel across countries? What other country can have Singapore's combination of highly paid civil servants and essentially no corruption? Would you really recommend to any country that it follow South Korea in encouraging—and arguably subsidizing—the formation of relatively few tightly held powerful family conglomerates? And is Botswana's handling of diamonds a beacon of policy clarity for everyone facing a bonanza of natural resources, or is it just the exception that proves the rule?

Second, given Tepperman's global reach, the limited number of unambiguous successes is a bit sobering. The politics of the poverty-reduction Bolsa Familia program in Brazil are compelling, as is the way in which Canada has remained open to immigrants even while other countries talk about slamming the doors. Some of the other examples are more novel, but also less convincing. Has New York created its own de facto national defense equivalent—or is that something that can only be done at the country level? Has Mexico really turned around its economics and politics? Has Indonesia figured out how to deal with Islamic extremists? And has Rwanda built an economy and a social peace that will outlast the leadership that created it?

Third, perhaps we should push back further on the overall premise here. To be sure, there is a great deal of angst and political smoke around globalization and its implications. But the bigger picture—as emphasized by Arvind Subramanian, formerly of the IMF and currently chief economic advisor to the Indian government—is different and much more positive. The world diverged dramatically, in terms of income levels and living conditions, at the time of the Industrial Revolution in the early and mid-19th century. And these gaps between better-off and worse-off nations did not close during the wars, decolonization, and boom-bust cycles of the 20th century. But the past 20 to 30 years—that is, the most recent period of globalization—have brought not only the rise of China but also the benefits of economic reform and trade across a wide range of countries. Poorer places are continuing to converge on the income levels of richer countries. Globalization definitely brings discontent, but in many situations it has also brought great benefits to hundreds of millions (and perhaps billions) of people.

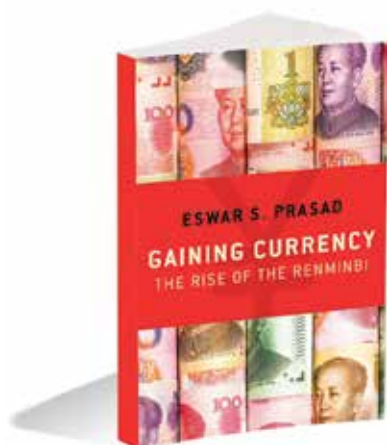
We see severe inequality everywhere.

Tepperman is right to focus on charismatic individuals and their contributions. It makes for a readable and fascinating book. But is history—and economic development—more about great men (and they are almost all men in Tepperman's account), or is it primarily about the broader processes that create a middle class, allow democracy to take hold, and encourage the development of stronger, more protective, and inclusive human rights?

Simon Johnson

Ronald A. Kurtz Professor of Entrepreneurship, MIT Sloan School of Management; Senior Fellow, Peterson Institute for International Economics

The Long View



Eswar S. Prasad

Gaining Currency

The Rise of the Renminbi

Oxford University Press, 2016, 344 pp, \$29.95 (hardcover).

What's not to like about a book that runs the gamut from Kublai Khan to Mao Zedong to Donald Trump?

Such is the scope and range of Eswar Prasad's new book *Gaining Currency: The Rise of the Renminbi*. In it, the author capitalizes on the current fascination with all things China to spin a yarn of how the renminbi rose to global prominence and the future challenges facing China as it evolves into a market-based economy that is fully integrated into the global system.

So far, China has forged a remarkable and unique path in making the renminbi a global currency. This becomes clear in Prasad's description of how it eschewed the typical route of capital account liberalization and, instead, punched discrete and controlled holes in its capital controls to allow money to flow in and out. China's unique path is again evident in the recent inclusion of the renminbi in the basket of currencies that make up the IMF's Special Drawing Rights (SDRs); in China's efforts to establish new institutions for international financial cooperation such as the Asian Infrastructure Investment Bank; and in China's expansion of political and economic interest

through cross-border financial support. Finally, Prasad captures an even bigger picture of Chinese exceptionalism as he describes the country's unprecedented attempt to implement a liberal, market-based economic system while preserving "one-party rule...[with] neither an open political system nor an independent judiciary."

Prasad comprehensively guides us through the various twists and turns as China ascends to its place in the global system, one that corresponds with its economic size. He paints a picture of both missteps and successes from an administration in Beijing that takes the long view and shrewdly exploits opportunities to further China's national interests. The book carefully cuts through the cloudy rhetoric of reform to pinpoint what is happening on the ground, beyond what is being written on paper.

One particular strength of the book is that Prasad takes the time to carefully walk the reader through the ideas of what it means to be a reserve currency, what the "internationalization" of the renminbi is, and how these concepts relate to capital account openness. Perhaps it is a reflection of my own nerdy economist predilections, but as Prasad traces out this path I would have appreciated a few more charts to help elucidate that narrative.

The book is at its most interesting and enlightening when it tries to tease out from the smoke and mirrors the political motivations behind various policy choices. How were the decisions to peg and de-peg from the U.S. dollar made? Why did being part of the SDR become such an important milestone for China? What are the likely prospects for economic, judicial, and political reform? Prasad usefully highlights the conflict and schizophrenia of the Chinese political elites who want the freedom of choice inherent in a market economy but, at the same time, display a deeply held risk aversion that repeatedly

leads them back to a central planning mind-set and the assertion of government control over outcomes (particularly when growth looks like it's flagging). He also provides context by capturing the essence of international reactions to China's actions, particularly on the complicated relationship with the United States over the dollar-renminbi exchange rate.

As outsiders, we never really know what's going on.

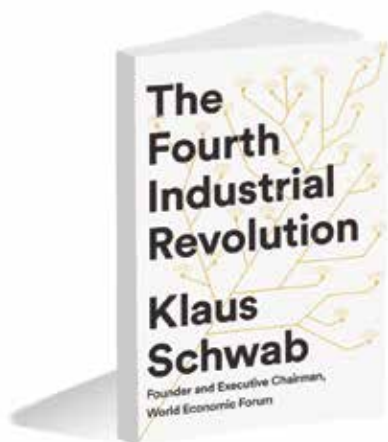
My one minor criticism of the book is that it presents these behind-the-scenes perspectives on domestic political motivations as being a little too definitive. Chinese politics is labyrinthine and opaque. The Communist Party of China is remarkably nonmonolithic, with dissent and disagreement always hidden below the surface. And there is a vibrant competition of ideas within the administration amid continuously shifting patterns of internal alliances. All of these factors make it extraordinarily difficult to diagnose, dissect, interpret, and extrapolate on the political motivations underpinning policy choices. Any guess of what really drives these behind-the-curtain machinations should humbly accept that, as outsiders, we never really know what's going on.

There is an old Chinese proverb that says those who are closely involved can be blind while bystanders can see clearly. That is certainly true of this book. Unencumbered by political ideology or national interest, Prasad is able to walk the reader through the complex geopolitical and economic challenges associated with the renminbi—and to do so with informative and engaging prose.

Nigel Chalk

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Revolution Evolution



Klaus Schwab

The Fourth Industrial Revolution

Crown Business, New York, 2017, 192 pp., \$28 (hardcover).

In this admirably short and graceful book, Klaus Schwab takes us on a breathless tour of a technological, economic, and social revolution. The first industrial revolution moved us from muscle to mechanical power between 1760 and 1840, the second brought mass production in the late 19th and 20th centuries, and the third delivered mainframes, PCs, and the internet through the 1990s. The fourth, according to Schwab, builds on the third but is much broader and more significant. Machines are becoming smart and connected, contributing to a dynamic fusion of technologies in the physical, digital, and biological and leading to change “unlike anything humankind has experienced before.”

Discussion of the economic and social implications of the current technological revolution is now familiar. What is distinctive in this book is the “spirit of Davos.” Schwab is the founder and head of the World Economic Forum (WEF), an independent international NGO dedicated to improving the world and famous for its annual assembly in Davos of leaders from “business, government, civil society, faith, aca-

demia, and the young generation.” Schwab draws on his WEF contacts and a rich set of WEF reports to grapple with what this revolution means for businesses, governments, individuals, and society.

The book starts with a whirlwind tour through the “megatrends” of the ongoing revolution: artificial intelligence, robotics, the internet of things, autonomous vehicles, 3D printing, nanotechnology, biotechnology, and so on. Schwab emphasizes not the individual technologies but the overall sweep of change: the unprecedented diffusion of “disruptors” such as Airbnb, the iPhone, and now autonomous cars; and a reduced role for workers. The “big three” companies in Silicon Valley in 2014 had the same revenues as the big three Detroit car companies in 1990, three times the market capitalization, and one-tenth the workers.

Tremendous economic growth will ensue. Schwab looks past Robert Gordon’s deflating fact that, in the United States at least, we have seen not a takeoff but rather a slowdown in productivity growth since 1970, except for a brief internet-fueled boom in the 1990s. He argues that the payoff is not yet here, because, as his WEF contacts tell him, the fourth industrial revolution is just beginning, and leaders are struggling to enact what must be a revolution in economic and organization structures in order to benefit.

The rest of the book reviews a broad range of challenges and opportunities for businesses, national and global institutions, governments, society, and individuals. Will the revolution unleash new prosperity and give workers productive new jobs, or will mass unemployment ensue? To Schwab, “(h)istory shows that the outcome is likely to be somewhere in the middle,” and the key is to foster positive outcomes and help those caught in the middle.

Will the on-demand economy, à la Uber, and the flexibility and mobility of the global digital economy

empower people or trigger a race to the bottom? For Schwab, “the challenge we face is to come up with new forms of social and employment contracts . . . [that] limit the downside . . . while neither curtailing the growth of the labor market nor preventing people from working in the manner they choose. . . . The choice is ours.”

What is distinctive in this book is the “spirit of Davos.”

The book is perhaps strongest when Schwab leverages his WEF contacts and context to emphasize the challenges for individual members of organizations facing the revolution. I came away with a renewed sense that—like the proverbial shark that must swim to survive—we must learn and change. “The ride will only get faster, and the journey will therefore require a hard and honest look at the ability of organizations to operate with speed and agility.”

It took me some time to grasp the thrust of many of the conclusions; I suppose I was looking for specific policy recommendations. However, to understand the purpose of this book, we must return to Davos and the idea that collaboration permits a “holistic perspective of what is going on . . . that is critical to develop and implement integrated ideas and solutions that will result in sustainable change.” This book seeks a holistic understanding of the fourth industrial revolution, but I worry, as I’m sure Schwab does too, that the collective understanding of the world’s elite is not enough to meet the challenges ahead.

Andrew Berg
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Development

Large gains, small losses

The June 2016 issue of *Finance & Development* contained some comments by Dani Rodrik about the gains and losses that arise from freer trade (“Rebel with a Cause”). Rodrik is quoted as saying that trade theory “shows that the larger the net gains, the larger the redistribution [that is needed]. It is nonsensical to argue that the gains are large while the amount of redistribution is small.” I wish to point out that these statements are not true in general for the reasons below. It is important to qualify these statements because they could be used to postpone liberalization.

Suppose that when a particular market is opened to trade, the domestic price falls and the good is imported. Since the price falls, producers are harmed, while consumers benefit. In technical terms, there is a loss in “producer surplus” and a gain in “consumer surplus.” The magnitude of the gain in consumer surplus and the loss in producer surplus depend, among other things, on the price elasticities of demand and supply, and there is no reason to believe that these are systematically related to each other. So, for a given price decline, the gain in consumer surplus will be very large and the loss in producer surplus will be very small when the price elasticities of demand and supply are both large. The gains and losses experienced by different groups from opening to trade depend on elasticity values, among other things, and it is an empirical matter just what these magnitudes are. It is quite possible that these elasticity values are such that the gains are large, while the losses, that is, “redistributions,” are small.

The level of domestic production relative to consumption, and hence imports, also matters for the size of the gains and losses. Suppose there is no local production of a product, so consumption is satisfied only by imports. In this case, reducing a trade barrier will increase consumer surplus, *without any loss in producer surplus*. Thus, in this case, there is no redistribution that would arise from opening a market to trade. How realistic is this? Quite.

To mention just one example, many developing economies do not produce automobiles, yet they impose various restrictions on their importation. So removing restrictions on imports of automobiles would generate a consumer benefit but no producer loss, and thus no redistribution. So when domestic production is very small relative to domestic consumption, and thus imports very large, the gains to consumers could be quite large, while the losses to producers quite small. Again, this is an empirical matter across countries. Computers and smartphones are other good examples for which the gains could be large while the losses small.

In short, the magnitudes of the gains and losses incurred by opening a market to trade depend on elasticities of demand and supply, as well as the size of domestic production relative to consumption. These are critical factors that qualify Rodrik’s remarks. It would be interesting to delve further into these matters using actual data across countries.

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15. Extent and nature of circulation	Average no. of copies each issue in preceding 12 months	Actual no. of copies of single issue published nearest to filing date (September 2016)
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B. Paid distribution through the USPS	171	99
C. Total paid distribution	177	105
D. (4) Free or nominal rate distribution outside the mail	12,349	12,286
E. Total free or nominal rate distribution	14,432	14,308
F. Total distribution	14,609	14,413
G. Copies not distributed	2,161	2,587
H. Total	16,770	17,000
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