FAULT LINES

How Hidden Fractures Still Threaten the World Economy

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CHAPTER TEN

The Fable of the Bees Replayed

IN 1714, BERNARD MANDEVILLE, a Dutchman living in England, wrote *The Fable of the Bees: Or Private Vices, Public Benefits.* Part verse, part prose, the tract was an indictment of the sharp practices, extravagance, and hypocrisy of the rich ruling class. For example, his portrait of lawyers in his fictitious beehive, a thinly disguised allegory for the England of his time, is one that should strike a chord with people in many countries today:

The Lawyers, of whose Art the Basis
Was raising Feuds and splitting Cases, . . .
They kept off Hearings wilfully,
To finger the retaining Fee;
And to defend a wicked Cause,
Examin'd and survey'd the Laws;
As Burglars Shops and Houses do;
To find out where they'd best break through.[1]

But after criticizing them, Mandeville went on to make an important economic point: the luxurious living of the rich and powerful, their changing fashions and tastes, had the one enormous benefit of providing work for the many. So

whilst Luxury
Employ'd a Million of the Poor,
And odious Pride a Million more
Envy itself, and Vanity
Were Ministers of Industry;
Their darling Folly, Fickleness
In Diet, Furniture, and Dress,

That strange, ridic'lous Vice, was made
The very Wheel, that turn'd the Trade.[2]

Indeed, when the voices of opposition grow loud enough in the beehive for Jove to put an end to the corruption and excessive consumption, the bee economy collapses. Mandeville thus makes the simple point that an economy full of thrifty savers cannot flourish for long because nobody can earn income if no one else spends money. We exalt frugality and excoriate borrowing, but in a vibrant economy, you cannot have one without the other.

In recent years, the world economy has come to resemble Mandeville's beehive. The United States (and a few other rich industrial countries like Spain and the United Kingdom) have been spending more than they produce or earn and thus borrowing to finance the difference. Poorer countries like China or Vietnam have been doing the opposite.

Energy use is a good indicator of actual consumption of goods. Each person in the United States used 7.8 tons of oil in 2003, which was about twice the amount used per person in France, Germany, and Japan; about 7 times the amount used in China; and 15 times the amount used in India. Of course, per capita income in the United States is among the highest in the world, but its consumption is disproportionately high relative to other rich countries. And because its savings are commensurately low, the United States financed its spending in 2006 by borrowing 70 percent of the world's excess savings.

This pattern of spending emerged, in part, because U.S. policies encouraged debt-fueled spending, both in normal times and as a way out of recessions, and because international financial markets were willing to accommodate the United States' needs. Countries like Chile, China, Germany, Japan, Malaysia, Saudi Arabia, and South Korea supplied the United States by following a pattern of growth that emphasized exports and financed it by being willing to hold U.S. debt, much as the tradesmen held the IOUs of the spendthrift lords of Mandeville's time. For many of these countries, supplying foreign needs was a more stable path to growth than creating their own.

This mutually beneficial but ultimately unsustainable equilibrium has been disrupted by the financial crisis and the subsequent downturn. Like many a developing country before it, the United States has come to recognize that the spending financed by a populist credit expansion is typically unproductive. Indebted U.S. households, weighed down by houses that are worth less than the mortgages they owe, have started saving more. To ensure that spending does not collapse, the U.S. government has stepped in to spend, but there are limits to how much it can do effectively. Consensus forecasts today suggest the United States will have to settle for a period of relatively slow growth. Forecasting is always difficult (especially about the future!), but if these forecasts are correct, sustained high unemployment will compound uncertainty for a middle class already hit by stagnant wages. They will have to face all this without the opiate of rising house prices and illusory wealth. Households in Spain and in the United Kingdom are in a similar situation, while smaller countries like Greece are on the verge of crisis.

Prudent macroeconomic management suggests that large-deficit countries should be more careful about spending and save more. If the world economy is not to slow considerably, the countries with trade surpluses will have to offset this shift by spending more. Ideally, the richer among them—Germany and Japan—should improve productivity in domestically oriented sectors like banking and retailing so that the added growth leads to greater incomes and more spending, while poorer but fast-growing developing countries like China and Vietnam should gradually reduce their emphasis on exports and promote domestic consumption.

There is even some hope that developing countries will start running large trade deficits once again and pull the industrial countries out of their growth slump, especially if multilateral lending institutions are reformed to be more supportive of borrowing. Such a hope is unrealistic and even dangerous, because developing countries have historically found it difficult to safely expand domestic demand financed with foreign borrowing. The problem is that domestic demand typically expands rapidly at times when the government has political aims or the financial sector has skewed incentives. In such situations, the fundamental allocation of resources is distorted. Anticipated financial support from multilateral organizations only increases wasteful spending before the inevitable crisis. Irresponsible foreign lenders get a larger subsidy, and the size of the hole that taxpayers eventually have to fill increases. There is, of course, some room for multilateral organizations to improve the availability of loans to countries with responsible policies, if nothing else so that countries do not run trade surpluses only to build up foreign exchange reserves. But in the foreseeable future, the response to the sustained reduction in industrial-country trade deficits should not be a commensurate sustained expansion of developing-country deficits and debts. Instead, it should require a narrowing of trade surpluses around the world, among both industrial and developing countries.

In practice, any such shift will be politically painful in the short term both for deficit and for surplus countries. Even as I write, the Federal Reserve is holding interest rates artificially low (especially in the housing market) in the hopes that households will start consuming more again—after all, household consumption has been the primary source of growth in recent years. China is actively intervening to stabilize the value of the renminbi against the dollar so that its exports do not suffer. These myopic actions will help entrench a longer-term pattern of behavior that will make it harder to move away from the current unsustainable equilibrium.

Of course, as Herbert Stein, the chairman of Richard Nixon's Council of Economic Advisors, once said, "If something is unsustainable, it will stop." Foreign investors have become increasingly wary about the amount of debt the U.S. government has had to issue to finance its deficits. With the majority of U.S. taxpayers believing they have benefited little from the boom years, the battle over who will bear the burden of additional taxes could turn ugly. Unlike the typical emerging-market country, the United States has not suffered a "sudden stop" of capital inflows during this crisis, because it has still been able to attract capital on easy terms from the rest of the world. However, if foreign investors fear that the United States will be unlikely to achieve the political consensus needed to set its government finances in order, they could start worrying that the government will follow the time-honored path of reducing the real value of its public debt through a bout of high inflation. If they take fright, they will sell their holdings of U.S. government bonds, causing the value of the dollar to slide more quickly. U.S. interest rates might have to go up substantially to retain foreign investor interest, thereby reducing U.S. growth even further than anticipated. That shift will bring down the U.S. trade deficit and spending, but in a way that maximizes pain all around.

Even if the status quo does persist for longer than we expect, there are longer-run consequences of maintaining the current pattern of imbalances. One is the issue of environmental sustainability around the world. Undoubtedly, as developing countries grown richer, their households will look to consume more. At current levels of technology, it is simply infeasible for the world to aspire to consume as much, and waste as much, as the average suburban American household does: as the former Indian finance minister Yashwant Sinha put it, we would then have no world to live in.[3] No doubt technology will improve over time, making a unit of consumption progressively less destructive to the environment. Nevertheless, if sacrifices are to be evenly spread across the world, it makes sense for consumption growth to shift from rich deficit countries to developing ones.

It is also in the exporters' long-run self-interest to alter their strategies. Although the reliance on exports has been very successful at both promoting rapid growth and ensuring stability, the Japanese experience raises questions about whether countries should follow it until they become rich—and risk subsequent stagnation—or turn to a more balanced path long before then. For a number of exporters, like China and Malaysia, the initial phase of building capabilities is long over. The challenge now is to broaden their sources of growth, withdrawing implicit and explicit subsidies to exporters gradually while extending the discipline of competition to the sectors focused on domestic production. Large countries like China may have no alternative but to wean themselves off dependence on global demand, because the world's ability to absorb Chinese exports will be limited if China does not import more goods from them. Of course, the world's political tolerance for buying Chinese goods may wear out long before its economic capacity to buy them does.

Change will therefore help global stability and sustainability and will be beneficial for each country in the long run. But change does upset the cozy status quo and the interests that benefit from it. For instance, the real estate lobby in the United States has no desire to see government support for housing diminish, even though the United States probably has far more housing stock than it can afford. Similarly, the export lobby in China has no interest in seeing the renminbi strengthen significantly. So we are caught between the rock of a financially and environmentally unsustainable pattern of global demand and a hard place of a politically difficult change in domestic policies.

These issues are not new. The political scientist Jeffry Frieden of Harvard University writes of the 1920s, when there was a macroeconomic imbalance between a great power running a sustained current-account deficit and a rising power that financed the deficits.[4] The rising power was the United States, and the great power was Germany, which had borrowed heavily from abroad

> to fuel a consumption boom that, among other things, dampened some of the underlying social tensions that beset the Weimar Republic. This was no small matter: without American financing to sustain the dynamism of the German economy, Weimar social and political instability might have caused serious problems for the rest of Europe. . . .
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> The German-American financial relationship rested on weak political foundations, as neither country was really prepared for the implications of the capital flows. The United States was not willing to provide an open market for German goods that would facilitate debt service, or any government measures to deal with eventual financial distress, and the Germans were unwilling or unable to make the sacrifices necessary to provide prompt debt service.[5]

As the Depression hit, each country looked inward, ignoring the consequences for other countries. The Smoot-Hawley Act passed by the U.S. Congress in June 1930 raised trade tariffs on imports in an attempt to protect U.S. jobs, making it still more difficult for debtor countries around the world to service debts. These countries either defaulted on their debt or overthrew governments that tried to adopt the austerity measures required to service it. Hitler was carried to power on the coattails of economic distress, and one of his first acts after taking power in January 1933 was to declare that Germany would not pay its foreign creditors. His message of hate and revenge fell on receptive ears in a Germany that felt ill-treated by the global economy.

The United States does not have the political weaknesses of the Weimar Republic, but the broader point is that without global economic cooperation when change is needed, countries could descend into opportunistic nationalism to the detriment of the global economy and the global political environment. Nationalism, coupled with great faith in the power of the government to enact domestic bargains between labor and capital, has been seen before: it was called fascism then. It is a development to be avoided at all costs.

Our existing global institutions, like the IMF and the World Bank, will likely prove ineffective in fostering global cooperation if they continue to operate as they have in the past. They will have to make radical changes in how they function, appealing more directly to the people than to their leaders, to soft power rather than to hard power. I discuss how such an approach dovetails well with the reforms that are needed in China. Clearly, the soft power of multilateral organizations can also be used to promote the reforms, discussed in the previous chapter, that are necessary in the United States.

The G-20 and the IMF

In September 2009, the leaders of the world's largest economies met in Pittsburgh and designated their group, the G-20, as the primary forum for global economic cooperation. Much like its predecessor organization, the G-7, the new self-proclaimed guardian of the world economy excludes many countries—almost a necessity in order to get dialogue rather than a cacophony, but undemocratic nevertheless. Who is in and who is out is also somewhat arbitrarily decided: Argentina is a member, while Spain, with a GDP that is nearly five times the size of Argentina's, is a member only indirectly, through the European Union. Be that as it may, the leaders of the G-20 patted themselves on the back for a "coordinated" fiscal and monetary stimulus in response to the crisis and had an unusually brief (for an official communiqué) description of the result: "It worked." They went on to say: "Today we are launching a Framework for Strong, Sustainable, and Balanced Growth. To put in place this framework, we commit to develop a process whereby we set out our objectives, put forward policies to achieve these objectives, and together assess our progress. We will ask the IMF to help us with its analysis of how our respective national or regional policy frameworks fit together. . . . We will work together to ensure that our fiscal, monetary, trade, and structural policies are collectively consistent with more sustainable and balanced trajectories of growth."[6]

So the G-20, having successfully coordinated responses to the crisis, is now taking on the bigger challenge of making sure national growth strategies fit together to rebalance global growth. This is precisely what I have argued must be done. Given its recent achievements during the crisis, however, can we have any confidence that the G-20, working through the IMF, will be effective?

Unfortunately not. It is very easy to get politicians to spend in the face of a crisis and to get central banks to ease monetary policy. No coordination is required, as every country wants to pump up its economy to the extent possible: the G-20 leaders were pushing on an open door when they called for coordinated stimulus. The real difficulties emerge when countries need to undertake politically painful reforms, reforms that might even seem to be more oriented toward helping other countries in the short run rather than the reformer itself. Politics is always local: there is no constituency for the global economy.

I know, because we have been through an attempt at global policy coordination before, precisely to deal with the problem of large global trade imbalances. That effort failed, and it is instructive to understand why.

In 2006, as the U.S. current-account deficit broke record after record and as China's current-account surplus soared, the IMF became deeply concerned. The managing director, Rodrigo de Rato, decided a new approach was warranted. We at the Fund (I was still the chief economist then) called on the five entities most responsible for the imbalances—the United States, the Euro zone, China, Japan, and Saudi Arabia—to come together to discuss how they would jointly bring the imbalances down. To prepare for the meetings, I jointly headed an IMF team, which traveled around the world in the summer of 2006, trying to secure some agreement among the countries that had been called together for the consultation. We were following the adage that nothing of substance is settled at most international meetings; all important issues are usually settled beforehand.

The weather ranged from 122 degrees in the shade in Riyadh, Saudi Arabia, to unseasonably cool in Tokyo. The response from our interlocutors was, however, pretty uniform. Countries agreed that the trade imbalances were a potential source of instability, and economic reforms were needed to bring them down before markets took fright or politicians decided to enter the fray with protectionist measures. But each country was then quick to point out why it was not responsible for the imbalances and why it would be so much easier for some other country to push a magic button to make them disappear.

For instance, the United States authorities argued that it was not their fault that the rest of the world was so eager to put their money in the United States: imbalances were the fault of the Chinese, who were buying dollars to restrain the appreciation of the renminbi. It was the pressure of these enormous inflows that led the United States to consume. The Chinese argued that if they allowed the renminbi to appreciate faster, exports from China to the United States would fall, while exports from Cambodia or Vietnam would pick up, and the U.S. trade deficit would remain unchanged. In their view, the real problem was that the U.S. consumer had no self-restraint. Moreover, their trade surplus was so large only because the United States limited Chinese purchases of high-tech equipment. And so it went. Everyone pointed the finger at someone else. The truth was that everyone contributed in some way to the problem, but no one wanted to be part of the solution.

At the end of 2006, I returned from the Fund to the University of Chicago, dejected that we had accomplished so little. When the consultations eventually concluded in 2007, the Fund declared that they had been a success: there had been a free and frank exchange of views, which is bureaucratese for total disagreement. Every country agreed to do what it had always intended to do, which was very little. The consultations had failed to produce concrete action. A few months later, born partly from the actions that created the imbalances, the crisis began.

The IMF did not fail because our arguments were not convincing. The reason everyone pointed a finger at everyone else was not that they did not understand their own responsibility but because no one we spoke to could really commit to the actions that were needed. Indeed, these were decisions that even the head of government could not take. For instance, no U.S. president can commit to reining in the budget deficit: that is a decision that only Congress can take. Similarly, no Chinese president can unilaterally agree to allow the renminbi to appreciate: that is a decision deliberated for months by various echelons of the

State Council and the Communist Party. Moreover, the needed changes went beyond reining in the budget deficit or letting the currency appreciate. They required deeper fundamental changes to the economy. And the global good counts for little among the politicians in the U.S. Congress or the Chinese Communist Party when it comes to contemplating fundamental change.

This is why, despite hoping for the best, I have deep skepticism that anything will come of the ambitious G-20 declaration. Nor is it likely that the IMF will achieve anything more than it did in the multilateral consultations that ended in 2007, crisis notwithstanding. Change will come only when countries are forced to change, or decide it is in their best interest to do so, but that process may be too costly, or too slow, for the global economy.

If doing nothing is not a viable option, how can we get global cooperation? I think any answer lies in a fundamental remake of multilateral institutions like the IMF and the ways they interact with sovereign countries.

Multilateral Institutions and Their Influence

Multilateral institutions have hitherto worked in two ways. One approach is the quasi-legal one followed by the World Trade Organization (WTO), which regulates trade between participating countries. The WTO bases its actions on a set of agreements that limit barriers to trade. These agreements have been signed and ratified by member governments after long and arduous negotiations. The WTO has a dispute-resolution process aimed at enforcing participants' adherence to the agreements, and because the rules are relatively clear, adherence can be judged in a quasi-legal setting. Penalties against violators, usually in the form of sanctions on their trade, are easily imposed. Countries do give up some sovereignty, such as the freedom to set import tariffs or subsidize favored industries, in exchange for others doing the same, and these concessions promote mutually beneficial trade. When industry presses national politicians to protect them, the politicians can simply throw up their hands and blame the WTO.

A second approach, one that is far less effective because of the nature of the task, is the way the IMF goes about international macroeconomic management and coordination: essentially through a process of exhortation that fails to move anyone except those who need the Fund's money. The problem here is that the rules of the game are not clear at all. When does a pattern of actions by a country create global harm? When the Fed cuts interest rates to the bone, and thus sets off a global wave of risk taking, do countries elsewhere have the right to protest? Could the Fed not say it is focused solely on U.S. economic conditions,

which is its primary remit? When China intervenes in exchange markets to hold the value of the renminbi against the dollar, is it using unfair means to gain a competitive advantage? Some have argued that China's huge buildup of reserves is evidence of an unfair policy.[7] But unlike developed countries, China restricts its citizens and private firms from holding foreign assets, so it is almost inevitable that its holdings of foreign assets will show up as central bank reserves. And even if it were proved that it had a policy of deliberate undervaluation, could it not claim it is a poor country, using exchange-rate undervaluation to offset its other natural disadvantages?[8]

Unlike the WTO, therefore, the IMF cannot frame a careful and universally agreed-upon set of rules. And there is some virtue to rules. Although establishing such rules requires an enormous amount of negotiation and bargaining, many of the parties who would be adversely affected by specific aspects of them also see broad long-term gains from the framework. As a result, in the WTO, disagreements can typically be papered over during the long and tortuous trade-negotiation rounds, with some give-and-take possible in setting the detailed rules. The problem with trying to secure an agreement on policy reforms across a set of countries on a case-by-case basis, as the Fund has to do if it is to bring down trade imbalances, is that winners and losers are clearly identified, both across countries and within countries. Each agreement is sui generis, and the Fund cannot make commitments across agreements to try to appease those who feel they may lose out in a particular instance.

Of course, countries could dispense with rules or agreements and give discretion to one agency, such as the IMF, to judge disputes and identify policy violations that cause international harm on a case-by-case basis, with some penalties for noncompliance. But because macroeconomic policy covers such a broad area, this would require countries to give up a tremendous amount of sovereignty to an international bureaucracy, an unlikely scenario. Historically, the world's great powers have been reluctant to see independent, strong multilateral organizations emerge. When strong, multilateral organizations have not been independent; and when independent, they have been largely irrelevant. The growing power of developing countries like China and India is unlikely to change this situation because they too have little desire for their policies to be scrutinized.

Even if an organization like the IMF could be independent of the big powers, it has a limitation: a mindset driven by a particular experience. Almost inevitably, organizations like the IMF recruit students trained in industrial countries, especially the United States. Most of the macroeconomic principles that are taught derive from the experiences of industrial countries, where organized markets typically function fairly well. So it is natural for the staff to favor certain kinds of intervention in the functioning of markets, such as monetary policy, while being critical of other kinds of intervention, such as those in the foreign exchange market. Of course, developing countries, where fewer markets work well and a broader set of interventions may be warranted, may be at a disadvantage when their policies are scrutinized by the Fund.

Also, economic growth happens in mysterious ways. If all countries had followed the prevailing economic orthodoxy in the 1950s and 1960s, we would never have had the Japanese or East Asian growth miracles. If countries did allow their macroeconomic policies to be policed by an international organization with the power to impose penalties for deviation, it could lead to a lack of diversity in policies that could limit learning and greatly dampen world growth.

Finally, even if the IMF could come up with a set of recommendations that were theoretically acceptable, not all countries would be willing to implement them. The WTO's rules not only are backed by the possibility of sanctions but can also be quietly implemented by governments through executive order: the commerce ministry can reduce a tariff here or remove a subsidy there. The IMF's recommendations are not backed by any power of enforcement: most industrial countries and large emerging-market countries do not need IMF funding, which constitutes its main means of persuasion. Moreover, the kind of reforms recommended are typically the kind that go against a ruling party's electoral calculus, making it impossible for a finance minister or head of state to commit to implementing them.

In sum, the IMF's role in macroeconomic policy coordination is quite different from the WTO's role in trade facilitation because, first, there are no clear rules on what is permissible and what is not, and any attempt to formulate such rules is likely to be unacceptable to many countries. Second, and in consequence, reforms have to be agreed to on a case-by-case basis, and governments typically do not have the domestic political support to commit confidently to the reforms they would have to undertake as part of an international agreement. Third, the inability to commit means that grand international agreements requiring fundamental reform by each country are hard to pull off, even when the reforms are in each country's long-term interest.

Even though the Fund is not always right, its prescriptions often hit the mark simply because the Fund is apolitical. However, the Fund will not gain WTO-like powers of sanction over something as amorphous as macroeconomic policy. Nor is "naming and shaming" violators in front of the community of nations

likely to have much effect. Finance ministers care primarily about domestic constituencies, which typically pay little attention to the workings of the IMF. That has made finance ministers pretty shameless, at least to date.

But these observations suggest an alternative. Rather than try to impose its will over nations by fiat, which the IMF will never have the authority to do, it should strive for influence by appealing more directly to a country's citizens. This would facilitate the government's task in building support for reforms. Put differently, instead of trying to be like the WTO and using hard power, it should emulate Oxfam's methods and use soft power.

Obtaining Global Influence

Consider the impetus to do more about mitigating climate change. This is a quintessential example of an issue with short-term costs and long-term gains. Politicians would shy away from such issues were it not for the grassroots movements in their constituencies. The pressure on governments to do something has increased not just because of mounting evidence that climate change is a real threat but also because a variety of organizations, from local to international, have mobilized people to press their representatives for action. Similarly, a popular movement led by rock stars like Bono pushed rich-country governments into forgiving debt to poor countries and into pledging to give more aid at the 2005 Gleneagles Summit.

Of course, governments have not signed up yet to binding commitments on emissions, and they have backtracked on aid commitments, but the point is that these movements gained influence by convincing political leaders that there was domestic support for international agreement. As the power of the Internet increases through social and political networking sites, and as virtual democracy spreads, public influence is likely to be as much bottom-up—leaders adopting popular positions—as top-down—leaders convincing the public of the merit of their views. Those who would influence the calculations of politicians must do so not by appealing to their better instincts but by convincing their masters, the people, directly.

Multilateral organizations like the IMF and the World Bank need to do far more to expand their reach—to speak for the world to the world. In addition to trying to persuade finance ministers and heads of state, they should go directly to the public, including political parties, nongovernmental organizations, and influential personalities in each country and explain their position. They need to become much more sophisticated about using Web-enabled networks to reach the connected citizen and find ways to enter school and university classrooms, where students can be most receptive to ideas about global citizenship.

The public has a longer-term horizon than the government in power and typically more idealism and concern for the global good. It is also likely to be more receptive to persuasion, especially when it is less anxious than in the current times. Of course, reforms whose benefits for a country over time swamp the costs are much more likely to be acceptable than ones that ask the country to make sacrifices for the world's good, but even the latter should not be ruled out: after all, aid in its purest form requires one-sided sacrifices, and the thinking active public in rich countries has pushed for it. The knowledge that citizens in other countries are being asked to pitch in at the same time—that solutions are truly intended to be global and multilateral—should be important in making persuasion easier. Moreover, to the extent that a domestic constituency develops that cares about a country's multilateral responsibilities, politicians will no longer feel it politically costless to violate international obligations; thus naming and shaming may have more force.

This sort of campaigning is not something multilateral organizations are currently well equipped to carry out. The IMF, for example, views its primary audience as finance ministries and central bankers. After years of trying to not offend anyone in member countries, IMF staff have developed a special way of writing reports that ensures that everything important can be inferred by those who know how to read between the lines (typically IMF staff and bureaucrats from the member countries), and anyone else falls asleep reading the turgid prose. The IMF has had long practice in communicating with bureaucrats or ministers, but far less in speaking to nongovernmental organizations (NGOs) or the press. The World Bank is better, but not by much.

Moreover, it is not clear that powerful member-country governments want an international organization speaking within their borders on a message they cannot control, even if it is strictly on economics. It is not just undemocratic countries that repress free speech; democratic countries that preach in public about the need for transparency and honest appraisals are often the ones that lean most heavily on international organizations in private to alter their message.

I recall a Washington press conference held to release the semiannual IMF World Economic Outlook in the spring of 2005. Campaigning was under way for the British elections. In response to the anticipated question from a reporter from the *Financial Times*, I remarked that the United Kingdom would need to do more to raise revenues or cut costs to meet its own fiscal rules, thus implying that it might have to raise taxes. My comments were based on impeccable

analysis by the IMF's staff, but Gordon Brown, then chancellor of the
chequer, was furious because they contradicted his own public statements c
ing the campaign. The Fund stood by its analysis despite immense pressure fr
the British treasury. Gordon Brown was also chairman of the IMF's goverr
committee and had a press conference scheduled the next day. With the IN
managing director, Rodrigo de Rato, sitting embarrassed by his side, he launc
into a broadside (prompted again by the inevitable question) against the F
and how it was wrong once again about the United Kingdom. The managing
rector politely said nothing, but in doing so, he implicitly backed his st
views. The data since then suggest the Fund was right.

On the one hand, the very fact that governments are concerned about
possible public influence of an impartial commentator on government poli
suggests that this avenue is grossly underexploited. On the other hand, such
tion will require a change in how multilateral organizations see themselve
as WTO wannabes hankering after hard power that they will never get, or th
who respect the sovereignty of each country and work for the global good, co
try by country, through soft power and persuasion.

Reforms to Global Economic Governance

If multilateral organizations are to change their strategies of persuasion, fur
mental reform is required. These include changes to the organizations as we
to the way they operate in countries. Their governance structure needs to be
formed so that they are seen to be independent of undue influence by any co
try, and some of these changes are under way. They should also make a consci
effort to broaden their intellectual frameworks by recruiting personnel trai
outside the United States. Some of this will happen as universities across the
veloping world strengthen their research capabilities and produce high-qua
graduates. Multilateral organizations should see engagement in the public
bate in member countries as one of their most important tools in encoura
domestic policies that foster the global good. And finally, the rules goverr
membership of these organizations should force members to accept such
gagement, facilitate it, and protect it when carried out in good faith. This r
indeed require important revisions to the articles of agreement signed by m
bers of the IMF, perhaps even a new historic agreement like the one at Bre
Woods that created the IMF and the World Bank.

This last point is important. No large power, especially but not exclusi
countries that are undemocratic, will be happy giving multilateral organizati

a platform to sound off on anything they want. Countries have to understand that there are important collective benefits from adopting sounder policies, and that if they want a platform from which to influence the policies of others, they have to allow others a platform to influence theirs. It should be understood that the multilateral organization will confine itself to economic and socioeconomic issues, with its views arrived at through a fair, deliberative process within the organization, based primarily on convincing economic research and data analysis. Its views should then be protected by international agreement, much as embassies and their activities are. Of course, a transparent and fair process will be essential to convincing citizens in each country that the multilateral organization has their interests at heart. Put differently, instead of an international agreement about economic policies à la WTO, we need an international agreement about how domestic policies can be influenced by multilateral agencies to incorporate the global good.

I have raised the issue of reform in the context of trade imbalances. But there are many other issues on which the world needs to come together on which it is currently being dragged apart. For example, whenever food prices rise, a number of countries start banning food exports. Although in the very short term such measures ensure that their citizens have access to cheap food, they deprive domestic farmers of higher prices and make them less eager to grow food. They also make other countries feel insecure and attempt to grow their own food, even if it is grossly inefficient for them to do so: the fields of grain that now appear in the middle of the Arabian desert are unlikely to be the best use of water in that location. The net outcome is that the myopic actions by governments to protect their citizenry in the short run result in global food insecurity and inefficient methods of production in the long run. We need a global agreement to ensure that international food markets will not be disrupted by government action—but no government today will risk being accused by the opposition of signing away its ability to ensure that its citizens have food. The multilateral organizations need to create the necessary awareness and momentum for agreement.

I have no illusions about how easy change will be. The instinct of global bureaucrats is to press for clear rules, but even in the European Union, which has some rule-making power and some ability to constrain the domestic policies of members, relatively homogenous countries have proved unwilling to accept strong external constraints on their policy making. Over time, rulings from Brussels have come to be seen as an imposition by citizens of EU countries, because domestic politicians blame them for everything unpleasant that has to be done and take credit for all the successes. It is no surprise, then, that when

the people are asked if they want a stronger Brussels, they vociferously respond, "No!"

We must remember that even Keynes worried about global imbalances and proposed the radical idea of penalizing countries that ran persistent trade surpluses.[9] Such ideas are unlikely to be acceptable to independent nations today. A diverse world will not accept any forceful global coordination of policies to bridge the fault line between nations. I do not advocate a halt to the many international meetings that attempt to coordinate reforms, which have produced much talk and little action thus far. Perhaps the G-20 will pull off a miracle. But because the issues are too important to be left to the bureaucrats and politicians, I have advocated opening a second track, a track that the smaller, non-G-20 countries of the world should back, to bring the policies of the big powers into line. Multilateral organizations like the IMF should present countries with a course of action that is individually and collectively beneficial and that can avoid the political and economic risks of inaction. The multilateral organizations will have to make the persuasive case in country after country that the gain is worth the short-term pain. If there is domestic political momentum, it will make it easier for leaders to conclude an acceptable pact at the international level. Put differently, global policy discussions have to be introduced into the political debate in every country and thereby make their way back into the closed-door meetings of global leaders. Global multilateral organizations will have to work with global democracy rather than avoid it.

China and the World

The most important economy in the world in the next decade, other than the United States, is likely to be China. Many policy makers outside China are concerned with the Chinese currency's peg to the dollar. From July 2005, the People's Bank of China (PBOC) allowed the renminbi to appreciate steadily against the dollar, but with the onset of the financial crisis in October 2008, it halted the appreciation and pegged the currency to the dollar again. Accusations of unfair trade are being heard in Washington corridors, and with U.S. unemployment touching 10 percent and Chinese growth also touching 10 percent, the disparity seems obvious. The momentum for Congress to impose some form of trade barrier is increasing, and even a renewed appreciation of the renminbi may not quell it.

Is Chinese currency intervention unfair? And if so, to whom? In one sense, the answer is obvious. Chinese exporters already enjoy subsidies such as cheap capital, land, and energy. With their goods made even cheaper by an undervalued currency, Chinese exporters can outcompete firms in industrial countries. This situation seems blatantly unfair. But this view assumes equivalence between countries in many other respects: the infrastructure in each country, the quality of its legal and contractual system, its regulatory structure, the education of its workers, and so on. Thus when one country intervenes to give itself a leg up, it seems to be violating the rules.

But there are other ways of looking at competition. Most outsiders contemplating China think of the swanky new parts of Beijing and Shanghai, not the interior and western provinces where conditions are far more backward. The infrastructure in a developed country is typically much better; its legal system is more effective at enforcing contracts; its regulatory structure is far more predictable and less corrupt; and its schools, no matter how downtrodden the area they are located in, at least have basic facilities.

An analogy may be useful. In an international athletic race, one of the participants is found to have taken an energy booster. He is disqualified for violating the rules. But on closer investigation, we find that when the race began, one set of participants had the latest, specially designed aerodynamic equipment, specifically allowed by the rule-making body, which is dominated by representatives of this set of countries, whereas the participant who took the energy booster used ordinary, off-the-shelf, cheap equipment. Who is competing unfairly now? Under the rules of the game, it is still the competitor who took the energy booster. But the rules themselves entrench disadvantages.

The term *unfair* takes a lot as given, including the framework of evaluation, and it is a term that cuts little ice with the leaders of developing countries. Dani Rodrik at Harvard University, for example, has argued that currency undervaluation may be the way for developing countries to offset their institutional disadvantages. Clearly, undervaluation is unfair once they fix their deficiencies (and the Chinese athletes today do have state-of-the-art equipment). It is also unfair to the poorer countries that do not have even China's advantages but have to compete with it to export. Nevertheless, judging what is unfair is not easy.

A stronger argument against persistent undervaluation is based on China's own interests. Undervaluation of the currency is a form of subsidy to a country's export sector that is financed by taxing those who import and those who finance the mechanism of exchange-rate intervention. The argument against continued Chinese intervention is that the subsidy does not help those who receive it and is becoming increasingly burdensome on those who pay for it.

Many of China's industries are beyond the stage where they need infant-industry protection. Also, because of fierce competition among Chinese firms, any subsidies they get are passed on to industrial-country buyers in the form of lower prices. Because other Asian economies also intervene in their currency's exchange rates and subsidize their exporters to remain competitive with China, poor households across Asia are effectively taxed to transfer benefits to exporters and are thus subsidizing the consumption of rich households in industrial countries. This situation is neither efficient nor fair.

Moreover, firms that invest on the basis of the competitive advantage obtained from an undervalued currency are creating an additional inefficient base of production that will remain competitive only if undervaluation persists. These firms will eventually join those that already lobby for undervaluation. Like many inefficient distortions, undervaluation is creating its own constituency in China, which will fight hard to preserve the status quo because its existence depends on it. Continued undervaluation is increasing China's dependence on traded goods while reducing its room to maneuver.

Most important, though, the effort to keep the currency undervalued is creating enormous distortions in the economy, holding down consumption, making all forms of production extremely capital intensive in a country with an abundant supply of labor, and leaving the financial sector underdeveloped.[10]

The Costs of Undervaluation

If China's central bank, the PBOC, buys dollars from Chinese exporters so as to keep the renminbi from appreciating, it has to give them renminbi in exchange. If it intervenes a lot, the abundance of renminbi in circulation will push up inflation. To avoid inflation, the PBOC issues its own debt at the same time as it buys dollars, so as to mop up and thereby "sterilize" the excess renminbi. Put differently, exporters effectively exchange dollars for renminbi-denominated claims on the PBOC—a process that is known as *sterilized intervention*. The PBOC uses the exporter's dollars to buy interest-earning U.S. assets, including the agency bonds discussed in Chapter 1, thus earning interest on dollar assets while paying interest on renminbi claims.

If the interest paid on dollar assets is low, while renminbi interest rates are high, the central bank will effectively be holding a low-yield asset while issuing a high-yield liability—which means it will incur a loss. If this negative spread were multiplied by the $2 trillion worth of foreign reserves (not all dollars, of course) that China has, it would blow a gigantic hole in the Chinese budget. Moreover, a high renminbi interest rate would attract yet more foreign capital inflows. In order to sterilize without making huge losses, the PBOC fixes the economywide interest rate at a lower level than the dollar interest rate, both by forcing banks to pay households a low rate on their deposits and by paying a low rate on its own borrowing.

A direct effect of such a policy is that China mirrors the United States' monetary policy. If interest rates in the United States are very low, China also has to keep interest rates low. Doing so risks creating credit, housing, and stock market bubbles in China, much as in the United States. With little freedom to use interest rates to counteract such trends, the Chinese authorities have to use blunt tools: for example, when credit starts growing strongly, the word goes out from the Chinese bank regulator that the banks should cut back on issuing credit. Typically, private firms without strong connections bear the brunt of these credit crunches. Chinese industry goes from credit feast to credit famine, which disrupts long-range planning.

The low interest rate has other adverse effects: it reduces household income and, somewhat perversely, may force households to save more in order to build a sufficient nest egg for retirement.[11] It thus depresses household consumption and makes China yet more dependent on foreign final demand. More problematic, it keeps the cost of capital unnaturally low. So when banks are willing to lend, firms borrow to the hilt to finance capital-intensive projects (and to keep some reserves for when lending stops), with machinery substituting for jobs. So a country with a labor surplus invests a tremendous amount in capital-intensive industries, creating far fewer jobs than needed.

Last, but not least, despite lending at rates that are very low in real terms to industry, the even lower rate they pay on deposits gives banks an enormous profit spread. This cushion, accumulated at households' expense, allows them to make gigantic lending mistakes without going under. It also allows them to exclude other competing sources of finance, such as corporate bond markets. All a bank has to do is to cut its spread a little to persuade firms not to issue in the bond market, thus keeping those markets illiquid and unattractive.

There are other, related, distortions. One of the dangers of having an inefficient, bank-dominated financial system, as we have seen, is that firms with good connections in the system get loans, while others do not. In China, the dominant state-owned banking system typically lends to state-owned companies—no loan officer risks being accused of corruption if he lends to a state-owned firm—and starves the private sector of funds. The Chinese private sector is thus squeezed between a state-owned sector, which gets cheap local funds, and foreign companies investing in China, who can raise cheap money outside. No wonder so few large private Chinese companies exist, as they do, for example, in India.[12] Far from being the brains of the economy, which it will increasingly need to become if China is to allocate capital and resources better, the Chinese financial sector is becoming the inefficient tool of state policy. This cannot be good for China in the long run.

China's undervalued exchange rate, driven by a strong exporter lobby, is likely to be detrimental to China's development. The export-led path also takes it down the same road as Japan, and that road, as we have seen, leads in a dangerous direction.

Persuading China

Whenever I broach the subject in China of whether the renminbi will be allowed to appreciate, my hosts remind me how Japan made the mistake of agreeing to U.S. pressure in 1987 and allowed the yen to appreciate sharply. Japan's woes, according to the Chinese, date from that period, for they slowed the growth of the successful export sector without replacing it with anything else. The Chinese would prefer to proceed more slowly and deliberately, "crossing the river by feeling the stones," as they put it.

What they don't see is that the Japanese may have left the transition from export-oriented growth to more balanced growth until too late, and now have to contend with both that problem and that of a rapidly aging population. China can move to a more balanced growth path while its population is still relatively young (albeit aging as a result of the one-child policy).

The needed reforms are likely to be attractive to households, which is why multilateral institutions might find an attentive audience if they explained to the Chinese people what needs to be done and why. A stronger renminbi will allow the Chinese middle class to import cheaper foreign goods and enjoy less expensive foreign holidays. Higher and more market-driven interest rates should give them higher incomes. And a more broadly based pension or social security scheme, strengthened by allocating the shares of state-owned enterprises to the scheme, should give them greater confidence to spend.

When financial institutions have to pay higher interest rates on their borrowing, their margins will shrink, and they will have less room to offer attractive deals to favored state-owned enterprises. Some of these will raise money directly from bond markets and equity markets, forcing these firms to raise transparency, improve governance practices, and increase dividend payouts.

Corporate bond markets could become a viable alternative to banks, creating funding channels outside the relationship system. If they lose their best clients, the banks will have to go beyond their comfort zone. They may start lending to small and medium-sized private enterprises, thus giving them the resources to grow. They may also expand retail credit, thus reducing the need for households to save before they can buy. China could become less of a producer-oriented, capital-intensive economy and become both more private-sector-oriented and far less dependent on foreign demand.

Such a transition is not easy, but the time is right. Because food prices are high, farmers, still the most numerous constituency in China, will not be hurt significantly by an appreciation of the renminbi that will bring in competing food imports. State-owned firms are flush with cash, so this powerful group can sustain the loss of profits as inputs like capital, energy, and land are subsidized less. They have invested a lot recently, and a slowdown in investment may not be entirely bad. However, reforms will have to depart from the path of steady experimentation and incrementalism and will require bold moves into the unknown on multiple fronts—freeing exchange rates, interest rates, and some prices, for example. Regulators will have to be extremely vigilant that the banking system does not go berserk during the process of change: this is a very important lesson from the failed Japanese transition.

There are two important reasons why China may be more open to strengthening multilateral organizations and agreements at this juncture. First, it is extremely dependent on exports, and the growing protectionist mood in developed countries has it worried. To the extent that it can ward off such moves through the persuasive efforts of multilateral organizations, it has an incentive to support them. Second, China has more than $2 trillion worth of reserves that are fully exposed to the bad macroeconomic policies of the countries whose debt it holds. More than any other country, it would benefit from a strong international economic arrangement that scrutinizes country policies. This also means that in order to persuade China of the value of change, industrial countries should show that they themselves can also be persuaded.

In sum then, this would be a good time for multilateral organizations to obtain a mandate to make the case more directly to the thinking middle class in China—to explain their research, analysis, and recommendations in understandable prose directly to the Chinese intelligentsia via articles, in conferences, and on the Internet. If the role of the multilateral organizations can be appropriately circumscribed, the Chinese leadership might possibly accept such a mandate, especially if a similar case for change is being made elsewhere and the

alternative is a disintegration of the global economy into protectionism. Indeed, the G-20 should agree to permit the multilateral organizations like the IMF substantial leeway to foster broader discussion within their countries in an attempt to achieve the grand objectives of global adjustment laid out earlier. If it is to gain wide acceptance, the IMF should also be evenhanded in making a case for policy change in other countries, above all in the United States. In going beyond their own comfort zone, multilateral organizations have little to lose but their irrelevance in addressing perhaps the most important global macroeconomic problem of our time.

Summary and Conclusion

The fault lines that have led to the global trade imbalances and created today's Mandevillean world are deep. Moreover, because the imbalances are the result of deeply embedded strategies, change will be painful. It is not just a matter of raising an interest rate here, a tax there, or an exchange rate somewhere else. It is tempting for the international establishment to treat adjustment as a simple matter and then express continuous surprise that change does not occur. It also gives politicians the dangerous impression that change is easy for the other side, so punitive trade sanctions can help persuade. We should have no illusions: change is difficult for all countries, though they all stand to gain in the long term, not just from a more stable world economy but also from a more sustainable domestic growth strategy.

Given that actions to reduce sustained trade surpluses or deficits require domestic political momentum, it is not surprising that nothing really happens at these international meetings. Platitudes are rolled out, but everyone knows nothing will be done. I have argued that multilateral institutions like the IMF and the World Bank should take a cue from the movements promoting action against climate change and supporting aid to poor countries. They should expand beyond making their case to the top leaders to creating more political momentum within countries, using all the modern methods of contact that technology has put at our command. They should speak directly to the influential and the connected, explaining why change is necessary and how it can be beneficial despite the pain of adjustment. The multilateral agencies should help bridge the fault lines between nations and help each one see what it needs to do.

This is not a task that the private or nonprofit sector will undertake. Cuddly koalas, rain forests, and destitute children inspire hearts, minds, and donations. Causes such as global trade imbalances, exchange rates, and even food scarcity are unlikely to have the same public appeal and will not be taken up by NGOs. This is precisely why the well-funded multilateral organizations have to get involved. Unlike the NGOs, they do not have to choose exciting or emotional issues that attract funding: they can focus on the drier issues that are every bit as important to the future of our globe.

Finally, change, whether attempting to enforce global discipline with a stick or encouraging citizens to push for it from below, will not come easily for the multilateral organizations. Nor will it be easy for countries to contemplate giving multilateral organizations the freedom to influence domestic opinions. China has not shown much tolerance for domestic discussion, and even as I write, is embroiled in a dispute with the search giant Google over censorship. But even China is finding it increasingly difficult to control discussion on the Web. There is more democracy in China than is reflected in its elections. Its growing Web-connected middle class is obtaining more influence over the Communist Party and the Chinese leadership. The recent ham-fisted attempt by the authorities to limit the viewing of the worldwide hit movie *Avatar*, and the subsequent furious public reaction prompting (an admittedly rare) policy reversal, may be indicative of things to come. At any rate, draconian attempts to limit outside contact may work for a while but will eventually hurt the Chinese economy, a key concern of the Communist Party. Moreover, pressure will build both from inside and from outside for China to be a responsible global citizen.

In sum, multilateral organizations should play a greater role in defining what global economic citizenship means and appeal directly to thinking people around the world, using not obscure, unread papers but modern technological tools. Because my proposal does not preclude the holding of those frenetic international meetings and conferences that achieve little, why not try it?

Epilogue

We live in an age of plenty. If I reflect on just the changes I have experienced as an academic over the past three decades or so, they boggle my mind. My first experience with a computer came only in the second year of my undergraduate degree in electrical engineering. I say *experience* because we never actually saw or touched the computer. It was housed in a mysterious air-conditioned room that only the privileged were allowed to enter. We hoi polloi used to write our programs on punch cards and submit them to the computing services desk. When the computer was free of more urgent tasks, the cards would be fed into it. When, pregnant with hope, we got the strangely thin output a few days later, we would realize to our chagrin that we had misplaced a comma on some card in the deck. A simple program that would take a few minutes to debug today took us weeks of hard labor then.

The advent of the personal computer made an enormous difference to the productivity of academic work. Early word processors let us dispense with typewriters and correction fluid, but they were difficult to use, especially when it came to formulating mathematical equations: I spent many nights as a PhD student trying to make equations look right on the screen, only to find on further analysis that they were technically wrong. Of course, computer games were ubiquitous even then, though far less sophisticated. At least one fellow student took an additional year to finish his PhD because he got hooked on a game called Tetris. I escaped addiction only because I was so bad at the game to start off with.

Research collaborations across any distance were extremely difficult when I was starting out. The cost of international phone calls was prohibitive, and documents had to be shipped by snail mail, adding enormously to the time taken to complete projects. The search for relevant papers involved hours in the library, and typically we knew only of papers that had already been published, not those in the pipeline. Because of the long lead times for publication, papers in the latest journals had typically been written years before. Imagine my dismay when I found a paper in the *Journal of Finance*, a few weeks before I went out onto the academic job market, that contained the central idea in my thesis. (Luckily, there were enough points of differentiation that it was clear I had made a contribution, but the experience was still very demoralizing.)

Today everything has changed. Indeed, the notebook computer on which I am writing this book has thousands of times the processing power of the room-sized mainframe I started out with not so long ago, and costs about one-thousandth the price. To my children, my student life occurred BIE—before the Internet era. They cannot imagine anybody could be that ancient! Technology has changed their lives, and mine, dramatically. The magnitude of the change I have experienced over just the past three decades gives me hope that we will be able to solve many of the problems that seem intractable today.

Those problems are many. Abject poverty is still a scourge in many developing countries. The poor seem especially damned by nature. The recent earthquake in Haiti killed hundreds of thousands of people. Equally strong earthquakes occur in other parts of the world without killing so many, possibly because buildings are built to withstand shocks. Perhaps the roots of poverty and the cause of nature's seeming lack of compassion for the vulnerable are the same: the inability in many parts of the world to create the basic governance structures that will allow people to create decent livelihoods—and safe buildings—for themselves.

Industrial countries have their own problems. Even as government debt mounts in the aftermath of this crisis, populations in many countries are aging rapidly and coming to the realization that their government's earlier promises of security and health care in old age are likely to be reneged on. As they tighten their belts to provide for the difficult present, the future, if anything, looks bleaker.

As if this were not enough, the sins of our past are catching up with us. The evidence for climate change, with potentially disastrous environmental and economic consequences, seems compelling. Although there is always a possibility that we will overreact, the richest countries need to think of ways of reducing unnecessary consumption of energy and materials, and developing countries need to consider more sustainable pathways to growth.

These problems can and will be solved, provided we retain faith in human ingenuity and give it space to express itself. Economic reforms in China and India have unleashed the creative energies of more than a third of humanity. Millions of highly trained Chinese and Indian engineers are putting their brains to work to meet the challenges. Companies in China are now leaders in developing electric car batteries, and companies in India are producing affordable

electric cars. When these developments are coupled with the advances in nuclear, solar, and wind energy that are taking place in industrial countries, we should be able to reach the goal of zero auto emissions at a viable cost in the not too distant future. If China and India can reverse centuries of decline in the space of decades, perhaps even Haiti may be able to use the ferment created by its recent tragedy to overcome the greater tragedy of its history.

Collaboration between countries can help in other areas: health management practices in developing countries could show the way to making health care more affordable in developed countries. "Medical tourism," whereby patients from rich countries can undergo much-needed medical procedures at significantly lower costs in developing countries, or "retirement migration," whereby the elderly migrate to retirement communities in salubrious but less expensive countries, helps bring incomes to developing countries while making treatment and old-age assistance affordable. Conversely, the migration of younger workers from developing to industrial countries can provide the tax base to help support aging industrial-country populations while also equalizing incomes globally. Remittances from migrants can help their relatives back home live better lives: entire areas in India, Mexico, and the Philippines have been transformed by remittances. Two-way flows of people can, if properly managed, be an answer to some of the world's most pressing problems.

Vibrant financial markets can provide the risk capital needed by the innovators across the world as well as the savings instruments needed by the aging and the currency-transfer facilities needed by migrants. But finance is in disrepute. Calls to shackle it are being heard from every quarter. More dangerous is the possibility that industrial countries, especially the United States, could lose faith in the financial system that has made them what they are. A misbegotten sense of the inadequacy of markets and competition is leading to ever more faith being placed in the government. Although there are certain things government can (and must) do, leading dynamic change and innovation is not among them.

It is an easy step for countries whose governments fail to meet the now-heightened expectations to seek to keep what they have by means of assertive nationalism and protectionism. Instead of embracing the growth of developing countries and keeping their domestic markets open, industrial countries could turn inward, to the detriment of all. According to polling by the Pew Foundation, 49 percent of Americans think their country should mind its own business internationally, a proportion 30 percentage points higher than when the question was first asked in 1964.[1] Equally, instead of accepting greater responsibility as their economic might grows, developing countries could prompt a stronger reaction by behaving as if their policies continue to have little effect on the world. We could yet convert hope into conflict, then despair, as the world has done many times before.

Economic stagnation is the breeding ground for conflict. To prevent history from mimicking itself, we have to understand the causes of the recent crisis and act on that understanding. Financial markets and democratic government are not incompatible. The role of financial markets is to allocate resources to those most capable of using them, while spreading the risks to those most capable of bearing them. The role of democratic government is to create a legal, regulatory, and supervisory framework within which financial markets can operate. However, democratic government has other roles, including limiting the most inequitable consequences of the market economy through taxes, subsidies, and safety nets. It is when democratic government uses these other tools inadequately, when it tries to use modern financial markets to fulfill political goals, when it becomes a participant in markets rather than a regulator, that we get the kind of disasters that we have just experienced.

Some argue that it was laissez-faire ideology that led us to this pass: regulators became enamored of the ideal of the self-regulating market and stood on the sidelines as it self-destructed. They are only partly right. Although it ought to be the duty of regulators to lean against the prevailing winds of optimism (and sometimes pessimism), regulation in the United States was driven by the misplaced view that markets would take care of themselves, a view that time and time again makes the ideological Right play into the hands of the ideological Left. Yet the bulk of the damage was done as the sophisticated financial sector tried to seek an edge that the U.S. government, driven by political compulsions, was only too willing to provide.

Progressives in the United States blame the bankers, while conservatives blame the government and the Federal Reserve. The worrying reality is that both are to blame, but neither may have been fully cognizant of the fault lines guiding their actions. Changing the actors, or trying to change their incentives directly, may have limited effect: we need to bridge the deeper fault lines. Unless we reestablish the proper role of the government and the financial sector, as well as fix the imbalances between nations, what happened may happen again.

The financial sector needs to know that it will bear the full consequences of its actions, which means that it, and not the taxpayer, will have to bear the losses it generates. The U.S. government has to re-create the access and opportunity for all its people that has historically been the hallmark of its economy while

helping those who fall behind. This will reduce the pressure on the government to intervene in financial markets or to stimulate the economy excessively.

Other countries have to implement reforms that will help rebalance the world economy while reducing their own dependence on global growth. In this, as with the other challenges that the world faces, we will need international cooperation. The world's great powers, both the established ones and the emerging ones, have to recognize that their policies do not add up to a coherent whole. They have been reluctant to create strong global institutions that might impose constraints on their policies. To counter this reluctance, we need to broaden the policy debate across the world, persuading civil society in each country to push its government to enact policies that further the global good.

I write these last lines in a Lufthansa Airbus, flying back to the United States from a conference in Moscow. It is late in the evening, and the gentle rays of the wintry setting sun, toward which we are headed, glint magically off the plane's giant engines. The venue of the conference reminds me how far we have come. Three decades ago, Moscow was virtually closed to academics from the West. When I landed yesterday, the main problem was getting from the airport to the city, because the road was clogged, seemingly with all the millions of cars Muscovites have acquired since the fall of communism. That is progress, though clearly progress has brought new problems.

Such scenes should remind us that the past three decades have brought immense improvements to countries around the world, as they have harnessed the power of global markets and finance while obtaining economic freedom. Unfortunately, we have allowed political imbalances to develop within countries and economic imbalances to grow between countries. In many rich countries, insecurity and despair have replaced hope. We should not let what has gone wrong obscure all that can go right, or reverse the progress we have made. But to preserve and rebuild trust in the market system, we have to make fundamental changes. Governments have to do more to help their citizens build capabilities that will allow them to be productive. But they also have to step back in other areas to allow the market to function effectively. This crisis has resulted from a confusion about the appropriate roles of the government and the market. We need to find the right balance again, and I am hopeful we will.

3 This section relies extensively on R. Haskin and I. Sawhill, *Creating an Opportunity Society* (Washington, DC: Brookings Institution Press, 2009), and J. Heckman and A. Krueger, *Inequality in America* (Cambridge, MA: MIT Press, 2005).

4 David Barker, "In Utero Programming of Chronic Disease," *Clinical Science* 95, no. 2 (1998): 115–28; David Barker, "Maternal and Fetal Origins of Coronary Heart Disease," *Journal of Royal College of Physicians* 28, no. 6 (1994): 544–51; David Barker, "The Fetal Origins of Adult Hypertension," *Journal of Hypertension* Supplement 10, no. 7 (1992): S39–44.

5 James Heckman, "Lessons from the Bell Curve," *Journal of Political Economy* 103, no. 5 (1995): 1091–120.

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8 James S. Coleman, *Educational Equality of Opportunity*, U.S. Department of Health, Education, and Welfare, 1966.

9 James Heckman, "Schools, Skills, and Synapses," NBER Working Paper 14064, National Bureau of Economic Research, Cambridge, MA, 2008.

10 Heckman and Krueger, *Inequality in America*, 95; S. Bowles and H. Gintis, *Schooling in Capitalist America* (New York: Basic Books, 1976).

11 J. Coleman and T. Hoffer, *Public and Private High Schools* (New York: Basic Books, 1983).

12 See Haskin and Sawhill, *Creating an Opportunity Society*, 144–45.

13 Barack Obama, speech at Democratic National Convention, quoted in *Washington Post*, July 27, 2004, www.washingtonpost.com/wp-dyn/articles/A19751-2004 Jul27.html.

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15 Doris Entwisle, Karl Alexander, and Linda Olsen, *Children, Schools, and Inequality* (Boulder, CO: Westview, 1997).

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17 Much of what follows is based on the report of the Teaching Commission, a private nonpartisan group chaired by Lou Gerstner, former CEO of IBM. Their 2004 report "Teaching at Risk: A Call to Action" can be found at www.csl.usf.edu/teaching%20at%20risk.pdf.

18 See Atila Abdulkadiroglu, Joshua Angrist, Susan Dynarski, Thomas Kane, and Parag Pathak, "Accountability and Flexibility in Public Schools: Evidence from Boston's Charters and Pilots," NBER Working Paper 15549, National Bureau of Economic Research, Cambridge, MA, 2009.

19 See Sam Dillon "Obama to Seek Sweeping Change in 'No Child' Law," *New York Times*, February 1, 2010.

20 See Haskin and Sawhill, *Creating an Opportunity Society*, 149.

21 Ibid., 153.

22 Ibid., 158.

23 This paragraph is based on David Deming and Susan Dynarski, "Into College and Out of Poverty? Policies to Increase the Post-Secondary Attainment of the Poor," NBER Working Paper 15387, National Bureau of Economic Research, Cambridge, MA, 2009.

24 Susan Dynarski, *The Economics of Student Aid*, NBER Reporter Research Summary 2007, no. 1, National Bureau of Economic Research, Cambridge, MA, 2007.

25 OECD, *Health Data 2008: Statistics and Indicators for 30 Countries* (Paris: Organization for Economic Co-operation and Development, 2008).

26 The peer group consisted of Canada, France, Germany, Japan, Switzerland, and the United Kingdom. See Alan Garber and Jonathan Skinner, "Is American Healthcare Uniquely Inefficient?" *Journal of Economic Perspectives* 22, no. 4 (Fall 2008): 27–50.

27 This and the next paragraph rely on Garber and Skinner, "Is American Healthcare Uniquely Inefficient?"

28 Chris Peterson and Rachel Burton, *US Healthcare Spending: Comparison with Other OECD Countries* (Washington, DC: Congressional Research Service, 2007).

29 Andrew Pollack, "Hospitals Look to Nuclear Tool to Fight Cancer," *New York Times*, December 26, 2007.

30 See Garber and Skinner, "Is American Healthcare Uniquely Inefficient?"

31 Katherine Baicker, Elliott S. Fisher, and Amitabh Chandra, "Malpractice Liability Costs and the Practice of Medicine in the Medicare Program," *Health Affairs* 26, no. 3 (May–June 2007): 841–52.

32 For the highly paid workers in the financial sector, I argue that having a stake in the firm can improve incentives. However, some reasonable portion of their savings should be independent of the health of their firms.

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35 Shlomo Benartzi and Richard Thaler, "Save More Tomorrow: Using Behavioral Economics to Increase Employee Savings," unpublished manuscript, University of Chicago.

Chapter Ten. The Fable of the Bees Replayed

1 Bernard Mandeville, *The Fable of the Bees* (1714) (Oxford: Clarendon Press, 1957).

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4 Jeffry Frieden, "Global Imbalances, National Rebalancing, and the Political Economy of Recovery," working paper, Council on Foreign Relations, New York, 2009.

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9 See George Monbiot, "Keynes Is Innocent: The Toxic Spawn of Bretton Woods Was No Plan of His," *Guardian*, November 18, 2008.

10 See Eswar S. Prasad, "Is the Chinese Growth Miracle Built to Last?" *China Economic Review* 20 (2009): 103–23.

11 Economists will see that I am arguing here that the income effect swamps the substitution effect.

12 See Tarun Khanna and Yasheng Huang, "Can India Overtake China?" *Foreign Policy* (July–August 2003): 75–81.

Epilogue

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