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The Foxes and Hedgehogs of Finance

The conclusion we reached at the end of the previous chapter should be puzzling. Shouldn't an economy perform better when individuals and firms are able to borrow and lend freely across national borders? Why would openness to finance be anything but an advantage?

Capital flows *can* be a boon to an economy under the right circumstances. In countries with plentiful investment opportunities and a shortage of savings, they allow firms to undertake projects that they would otherwise be unable to. Especially when it comes bundled with technology, market knowledge, and other skills, long-term foreign direct investment is an essential component of economic growth. But why do other kinds of international financial so often produce perverse results?

Recall one of the points I made when we discussed the gains from trade. A profitable exchange between a buyer and a seller is only desirable for society as a whole when prices reflect the full social (opportunity) costs involved in the exchange. This principle applies equally well to financial markets. When I invest in a piece of paper issued by an entity on the other side of the world—a debt obligation, a bond, or a derivative—do I have an accurate understanding of the risks I am taking? Does the promised yield reflect

those risks? When I borrow money, does the interest rate reflect the costs that others will face, or the fiscal expenses required to bail me out when I find myself unable to service my debts? When I engineer a newfangled security, do I take into account the possible effects on the company's bottom line over the long term (beyond the effects on my compensation package)? If the answer is not an unqualified yes to these and a multitude of other similar questions, financial markets will fail. Unfortunately, such failings are legion, which is why we have become so accustomed to the financial market pathologies they produce.

Economists are not unaware of these problems. The economics literature is chockful of analyses of these failings, which go by names such as asymmetric information, limited liability, moral hazard, agency costs, multiple equilibria, systemic risk, implicit guarantees, information cascades, and so on. Each one of these phenomena has been studied to death with intricate mathematical reasoning and empirical illustrations. By now most economists also understand that these problems have not been adequately addressed in the global economy. Domestic finance is underpinned by common standards, deposit insurance, bankruptcy rules, court-enforced contracts, a lender-of-last-resort, a fiscal backstop, and an alphabet soup of regulatory and supervisory agencies. None of these exists globally. So global regulations and standards are an ineffective patchwork and crisis response remains ad hoc.

Given what we know, why are global markets so poorly managed? The problem derives from a tendency among economists and policy makers to downplay the consequences of these failures for the actual conduct of policy, sheltering the case for financial liberalization from their ominous implications. It's not that financial markets don't fail; it's that we can carry on as if they don't. To understand how this particular professional deformation plays out, we need to recognize the difference between foxes and hedgehogs in the economics forest.

The Fox and the Hedgehog

In a famous essay on Tolstoy, the liberal philosopher Sir Isaiah Berlin distinguished between two kinds of thinkers by harking back to an ancient saying attributed to the Greek lyric poet Archilochus (seventh century BC): "The fox knows many things, but the hedgehog knows one big thing." Hedgehogs have one central idea and see the world exclusively through the prism of that idea. They overlook complications and exceptions, or mold them to fit into their worldview. There is one true answer that fits at all times and all circumstances. Foxes, for whom Berlin had greater sympathy, have a variegated take on the world, which prevents them from articulating one big slogan. They are skeptical of grand theories as they feel the world's complexity prevents generalizations. Berlin thought Dante was a hedgehog while Shakespeare was a fox.[1]

The distinction captures neatly the divide within economics between the hedgehogs who think freeing up markets is always the right solution (the "big idea") and the foxes who believe the devil is in the details.[2] Foxes believe in markets, too—they are economists, after all—but they believe real world complications require a much more cautious approach that is sensitive to context. To the extent that they take these complications into account, the hedgehogs see them as strengthening the case for market liberalization rather than as standing in the way.

You can tell what kind of an economist someone is by the nature of their response when confronted with a policy issue. On gut instinct, a hedgehog economist will apply the simplest textbook analysis to the question at hand. Markets maximize efficiency, and the freer the market, the better. In this world, every tax has an efficiency cost; every restriction on individual behavior reduces the size of the economic pie. Questions of equity and efficiency can be neatly separated. Market failures are presumed nonexistent unless proved otherwise and, if present, are to be addressed only by the

most directly targeted remedies. People are rational and forward-looking. Demand curves always slope down (and supply curves up). Economywide interactions do not overturn the logic of partial analyses. Adam Smith and his subsequent followers have proved that unfettered markets work best. No matter how technical, complex, and full of surprises these economists' own research might be, their takes on the issues of the day are driven by a straightforward, almost knee-jerk logic: remove a government intervention or barrier and economic performance will get better.

The foxes among economists have a healthy respect for the power of markets, but they are inclined to see all kinds of complications that make the textbook answers incomplete. In their world, the economy is full of market imperfections, equity and efficiency cannot be neatly separated, people do not always behave rationally, some otherwise undesirable policy interventions can generate positive outcomes, and complications that arise from economywide interactions render doctrinaire analyses suspect. Adam Smith's followers have demonstrated a long list of exceptions to the principle that unfettered markets enhance social welfare. Government intervention can improve market outcomes in many ways. Foxes see the economy as inherently "second-best"—too impure for the hedgehogs' ideal policies to be always the right ones.

Some of the differences stem from how each group perceives the prevalence of market failures. Hedgehogs are less likely to think these failures are as common as the foxes make them out to be. But the more significant difference between these two groups lies in their *response* to market failures.

A hedgehog will argue that when markets break down, the solution is not to restrict them or to look to government for help, but to simply make them work better. The complications that worry the fox must be addressed directly, by removing the distortions that give rise to them. If the fox is concerned about excessive risk taking within banks, the right approach is to fix incentives to rein

in risky behavior. If too much government debt creates financial fragility, it is the government's fiscal policy that needs adjustment. Each problem requires its own specific remedy; they are no reason to delay or give up on liberalization as a whole. This is called the "principle of policy targeting"—aiming the policy intervention at the source of the problem. It is sensible as far as it goes. But in the hands of hedgehog economists who presume that all relevant complications should and can be addressed through the most appropriate means, the principle cycles back as a powerful tool for liberalizing everything in sight without worries about adverse effects. After all, those adverse effects can be handled directly and separately. In effect, it allows these economists to expect that the world will adjust to their recommendation, rather than the other way around.

In reality, we often have just a hazy idea about the root source of a given problem. And even when we have a good fix on it, administrative and political difficulties may stand in the way of addressing it directly. Attempts at liberalization backfire because not all the necessary safeguards are in place. A similar fate befalls the hedgehogs' recommendation to remove trade restrictions and deal with any adverse distributional consequences through compensatory measures. The liberalization takes place and the economist walks away happy. Meanwhile it turns out that arranging the compensation is not as easy as it seems. By the time the backlash (or the financial crisis) sets in, the economist is busy advocating liberalization elsewhere.

The hedgehog economist will buttress his (or her) case by arguing that market solutions are the lesser evil when compared to government interventions. This is where the battle gets explicitly ideological. Even if markets are prone to fail, the hedgehog will say, governments will make things even worse. Bureaucrats do not have the necessary information to do the right things; they are captured by the interests they are supposed to regulate; and they are prone to corruption. For one or more of these reasons, the

argument goes, government restrictions on international finance will prove a remedy worse than the disease. Notice how this is almost the complete opposite of the argument for policy targeting, insofar as it assumes governments have virtually zero capacity to get the simplest things right—let alone undertake finely tuned interventions targeted at the very source of market failures. Fortunately, this argument cannot be entirely right since, as we saw in chapter One, modern market economies require a wide range of supporting institutions, many of which are provided by the state. If the hedgehogs were right, modern market economies would not have prospered; they would be dysfunctional.

These arguments have been widely deployed in support of free capital flows. When Stanley Fischer made the case for capital mobility during the 1997 meetings of the IMF, he devoted a major part of his presentation to the adjustments required for countries to "prepare well" for capital mobility. As he put it, "economic policies and institutions, particularly the financial system, need to be adapted to operate in a world of liberalized capital markets." Some of what needs to be done was well known, he said. Macroeconomic policies need to be "sound"; the domestic financial system needs to be "strengthened"; and the removal of capital controls should be phased in "appropriately." But there were also issues about which there was less knowledge or consensus. How much information about their conduct of policy should central banks and other government authorities share with financial markets? How can the IMF and other multilateral agencies improve "surveillance"—their monitoring of financial market trends and risks? How can they increase financial support to countries in crisis without providing a blanket guarantee to creditors and borrowers?[3] For Fischer, neither the scale of the required adjustments nor the presence of open-ended questions were a convincing argument for delaying liberalization. Reforms would ensure that the gains from capital mobility were reaped while the risks were contained.

Frederic Mishkin, a distinguished monetary economist at

Columbia who has also served as a member of the Board of Governors of the Federal Reserve, provides a more recent example of the hedgehog mind-set. His book *The Next Globalization: How Disadvantaged Nations Can Harness Their Financial Systems to Get Rich*,[4] published in 2006 just as the global financial crisis was about to strike, is one of the most upbeat books on globalization in recent years. Even though many globalization advocates are ambivalent about *financial* globalization for the reasons outlined earlier, Mishkin remains an unabashed booster.[5] He is also under no illusion as to what will make financial globalization work. Emerging market economies need "good institutions" that promote property rights "such as the rule of law, constraints on government expropriation, and absence of corruption." They also need institutions that promote an efficient financial system, such as "financial regulation to encourage transparency, good corporate governance, prudential supervision to limit excessive risk taking, and good enforcement of financial contracts." These reforms in turn require extensive legal and political transformations to relax the grip of incumbents in the system and open it to competition.[6]

What is striking in arguments such as these is how extensive and imprecise—simultaneously—the list of prerequisites can be. Many economists describe the institutional requirements for successful opening to finance as if they were simply a matter of turning certain policy switches on and off. Fix institutions. Establish the rule of law. Eliminate corruption. Get rid of excessive financial risk taking. And don't forget political reform. Done? Good. Now stand ready for the economic boom that financial globalization has in store for you.

A laundry list of reforms of this kind assumes that developing countries have some magic tools at their disposal to accomplish changes that have taken today's developed countries centuries to achieve. Even worse, as the subprime crisis has demonstrated, not even the most sophisticated regulators in the world have a good fix on how to police excessive risk taking or foster adequate levels

of transparency. But no matter. We can be sure that the list of prerequisites will only grow in length. And when countries run into trouble with financial markets, there will be always something on that list which they haven't gotten quite right and on which the crisis can be blamed. There is something self-serving in this type of advocacy; the hedgehog economist can never be wrong, no matter how badly things end up.

Consider Argentina during the 1990s. This country enthusiastically embraced capital mobility in the early part of the decade alongside wide-ranging reforms in finance, trade, fiscal policy, and governance. Its rules on financial regulation and supervision were first rate and considered to be better than those in many advanced countries. The reforms turned Argentina into one of the IMF's brightest stars. On a visit to Argentina in 1996, IMF managing director Michel Camdessus expressed his admiration thus: "when I come to Argentina, I no longer see the dramatic symptoms of crisis, but rather what is in many respects a blueprint for success."[7] Three years later, Argentina was the massive casualty of a sudden stop in capital inflows, triggered by the Brazilian devaluation of 1999.

In his book, Mishkin grants that Argentina did much to improve its financial markets and regulation. But as he ruefully puts it, "Unfortunately, these efforts were not enough to ensure success." The financial crisis, he writes, was the result of "[s]tructural problems in the Argentine economy, a failure to deal with fiscal problems, and some bad luck."[8] In other words, no matter how much a country does, it is rarely enough. Financial markets demand more.

Michael Lewis, one of our greatest raconteurs of financial shenanigans, reports a conversation with a friend who created the first mortgage derivative in 1986. This friend says: "The problem isn't the tools. It's who is using the tools. Derivatives are like guns."[9] The analogy is revealing. In effect, hedgehog advocates of financial liberalization are like proponents of relaxing restrictions

on guns. The battle cry of these proponents is: "It's not guns that kill people, it's people that kill people." The implication is that we should let firearms circulate freely while preventing them from falling into the hands of criminals and enforcing tough sanctions for misuse. This is a pretty good argument if you believe several things: that we can identify future criminals; that we can do a good job of catching those who commit crimes; and that punishment tomorrow strongly deters crime today. Otherwise, the cost to society from individual freedom is too high. A blunter but more effective instrument is needed: restricting access to guns.

The fox's perspective on financial liberalization runs along similar lines. In a perfect world, we would minimize the adverse side effects of free capital mobility through appropriate regulations without having to resort to direct controls on capital flows. We do not live in a perfect world, and caution dictates that we not let financial markets run wild.

Let us return to James Tobin, one of the earliest post–Bretton Woods advocates of capital controls within the economics establishment. Before he floated his proposal to tax international currency transactions, Tobin carefully considered the hedgehogs' ideal solution. "[L]et us pay our respects to the 'one world' ideal," he wrote. What would it take to construct a world financial market as integrated and unified as that which exists within a nation, say the United States?

Capital flows freely within the United States and this clearly produces important economic benefits. "With nationwide product and labor markets," Tobin explained, "goods and labor . . . flow readily to areas of high demand, and this mobility is the essential solution to the problems of regional depression and obsolescence that inevitably occur." Under these conditions, macroeconomic policies on a regional level are superfluous, and in any case could not be conducted. A common currency, fully integrated national financial and capital markets, and a nationwide monetary policy ensure that speculative capital movements aimed at exploiting

differences in interest rates or changes in exchange rates cannot exert a destabilizing force.

A hedgehog approach would entail building the same kind of economy globally as exists nationally. But to describe how U.S. markets work, Tobin pointed out, "is to remind us how difficult it would be to replicate [their] prerequisites on a worldwide basis." In reality, "private financial markets have become internationalized much more rapidly and completely than other economic and political institutions." In light of this, Tobin felt compelled to propose a foxlike remedy: a tax to segment international currency markets.[10] Such a tax on international financial transactions, even if set at a very low rate, would deter traders from engaging in excessive buying and selling of currencies and other financial assets in search of very short run profits.[11]

Keynes would have approved, of course. He too might have preferred addressing the root causes of speculative excesses, which he would identify as human foibles and herd effects in addition to regulatory weaknesses and political fragmentation. But Keynes was a fox with a keen sense of the practical limits of what can be achieved in the real world. That is why he envisaged capital controls as an integral part of any stable system of international finance.

Perhaps the most consummate fox among today's economists is Joe Stiglitz, whose research constitutes a nearly endless catalogue of the ways in which markets can fail. Stiglitz won a Nobel Prize in 2001 (along with George Akerlof and Mike Spence) for theoretical work showing how "asymmetric information" distorts incentives in a wide range of markets. If you know more than I do about the value of what you are selling me—whether it is your used car, your labor, or your debt—then we're in for a troubled relationship. Prices in such transactions tend to provide the wrong signals. Many trades that should not happen do, while others that should happen don't. Many of the pathologies of financial markets—boom-and-bust cycles, financial panics, lack of access to credit by

otherwise creditworthy borrowers—can be explained by information asymmetries of this type (often interacting with other market distortions). Unlike many others who have done work on market failures, Stiglitz actually takes the results of this research seriously. He has been a vocal opponent of freeing up capital flows and an ardent critic of the IMF.[12]

The oddest member of the group of capital market skeptics is Jagdish Bhagwati, the Columbia University economist. Bhagwati created quite a stir during the Asian financial crisis when he published an article in 1998 called "The Capital Myth: The Difference Between Trade in Widgets and Dollars."[13] Bhagwati is one of the world's most passionate advocates of free trade. So when he wrote that advocates of free capital markets were motivated by ideology and narrow self-interest (what he called the "Wall Street–Treasury complex") rather than economics, ears perked up. Bhagwati pointed to the familiar problems with international capital markets: short-term speculation, the propensity to panics, and the costly adjustments caused by reversals in flows. In view of these risks, he argued, there was no good reason to push countries to remove their controls on capital flows.

What makes Bhagwati's stand peculiar is not that he is against free capital flows while he favors free trade in goods. After all, one can reasonably claim that market failures are much more rampant in the market for "dollars" than they are in the market for "widgets." A difference of another kind stands out. Bhagwati is a hedgehog in trade, but a fox when it comes to finance. Having established his academic reputation by showing how market imperfections—divergences between private and social valuations—may lead to unexpected results in trade, Bhagwati would never deny the possibility that such imperfections exist in the real world. His case for free trade relies instead on the hedgehog's principle of policy targeting. He accepts free trade's "downsides," but proposes that we deal with them through "a complex set of new policies and institutions," such as domestic and international compensation

mechanisms and other interventions targeted at the source of the problem.[14] This is of course exactly the kind of argument made by Fischer, Mishkin, and other defenders of free capital mobility. Don't restrict capital mobility; deal with the underlying problems directly. Bhagwati rejects this approach in the case of finance, presumably because he finds it impractical. He is quite right to do so.

Collateral Benefits or Collateral Damage?

The latest generation of arguments in favor of unrestricted capital mobility takes a different tack, emphasizing the indirect and catalytic role of financial globalization. The writings of Ken Rogoff, the Harvard economist who served as IMF's chief economist, best represent this line of thought.

Rogoff and his collaborators grant that the existing evidence has not been very kind to those who expected to see significant benefits from free capital flows in the form of higher investment and faster growth. But if there has been disappointment, they argue, it is only because people have been looking in the wrong places. The real benefits lie elsewhere. In their view, financial globalization promotes better domestic financial sectors, imposes discipline on the conduct of macroeconomic policies, exposes domestic firms to foreign competition, and creates pressures for better governance, both public and corporate. In other words, financial globalization generates significant "collateral" benefits.[15]

Rogoff's argument has a certain appeal. Many developing countries could use better macroeconomic discipline and institutional improvement, regardless of how these come about. But we can just as easily argue the other way, suggesting that financial globalization weakens (rather then strengthens) macroeconomic discipline and undermines (rather than promotes) institutional development.

Clearly, access to international finance often enables profligate governments to run larger deficits for longer than would be the case if they relied on domestic creditors alone. Take the case of Turkey, a country that went through a wrenching financial crisis in 2001. After it removed controls on capital flows in the late 1980s, the Turkish government found a ready source of cheap finance despite poor macroeconomic management. Public debt was on an explosive path and inflation remained high. Nevertheless, domestic commercial banks would borrow abroad and use the money to buy government bonds, profiting from the interest margin. When the eventual correction came, precipitated by a "sudden stop" in capital inflows, the economy experienced its worst decline in decades. Without financial globalization, Turkey would have been forced to put its fiscal house in order a lot sooner than in 2001, and it would have cost the country much less.

Or consider Greece, the European Union's profligate problem child. This country flouted for years Brussels' ceilings on government deficits by manipulating its budget statistics. The Greek government had handy accomplices in carrying out this statistical legerdemain. In return for hundreds of millions of dollars in fees, Wall Street firms such as Goldman Sachs engineered the financial derivatives that helped hide the scale of Greece's budget woes.[16] When the full scale of the government's bankruptcy came to light in early 2010, it threw not only Greece but the entire Eurozone into crisis. Germany and France were confronted by a cruel choice: either bail out Greece, thereby rewarding misbehavior and flouting EU rules, or let Greece (and possibly other weaker nations as well) drop out of the euro, dealing a potentially fatal flow to the currency union.

External finance is a fair-weather friend: there when it is least needed, and absent when it could do some good. This is not news. It was a running joke during the 1930s that foreign finance is like an umbrella which a man is allowed to borrow, but must return as soon as it starts to rain.[17] Financial globalization aggravates rather

than moderates economic cycles in emerging market economies—the upswings and downswings in economic activity.[18] It is difficult to see how this contributes to fiscal discipline.

The argument about governance improvements proves suspect as well. Financial globalization does force governments to pay more attention to what bankers want, but finance and banking is one industry among many, with its own special interests. Why should its demands line up always, or even most of the time, with what a country needs?

Consider a typical conflict in a developing economy: foreign bankers prefer high interest rates and an appreciated currency while domestic exporters prefer low interest rates and a cheaper currency. Which of these two outcomes should monetary and fiscal institutions be designed to deliver? More often than not, exporters' preferences will do the most good for the economy as a whole, and hence the economies where finance does not have the upper hand politically will prosper.

More generally, banking interests tend to have a preference for very light regulation regardless of the implications for the rest of the economy. Their influence can have quite a corrupting effect on politics and institutions when it goes unchallenged by others. Indeed, the mortal blow to the "collateral benefits" argument was struck by the subprime mortgage meltdown, which demonstrated finance's remarkable ability to undermine governance—and to do so in the richest and oldest democracy in the world. In its wake, it would be very difficult to argue that banking interests contribute to better institutions.

The Seductions of Financial Innovation

In the aftermath of the subprime mortgage meltdown no one has to break a sweat to be a finance skeptic. But we should give hedgehog economists their due: To most of us, their narrative on the

financial innovation that led to the crisis seemed quite compelling when we first heard it.

Everyone wanted credit markets to serve the cause of home ownership, so we started by introducing real competition into the mortgage lending business. We allowed non-banks to make home loans and let them offer creative, more affordable mortgages to prospective homeowners who were not well served by conventional lenders. Then we enabled these loans to be pooled and packaged into securities that could be sold to investors, which should have reduced risk in the process. We then divvied up the stream of payments on these home loans into bond tranches of varying risk, compensating holders of the riskier tranches with higher interest rates. We then asked credit rating agencies to certify that the less risky of these mortgage-backed securities were safe enough for pension funds and insurance companies to invest in. And just in case anyone was still nervous, we created derivatives that allowed investors to purchase insurance against default by issuers of those securities.

If we had wanted to showcase the benefits of financial innovation, we could not have devised a better set of arrangements. Thanks to them, millions of poorer and hitherto excluded families were made homeowners, investors made high returns, and financial intermediaries pocketed the fees and commissions. It might have worked like a dream—and until the crisis struck, many financiers, economists, and policy makers thought that it did. The narrative they all relied on was appealing. Financial innovation can allow people to access credit in ways they could not before by pooling risk and passing it on to those in the best position to bear it. If some people and institutions make mistakes and get overstretched in the process, they will pay the price for it. Financial markets will police and discipline themselves. Who can be against all this?

The crisis that engulfed financial markets in 2007 buried Wall Street and humbled the United States. The gigantic multi-

trillion-dollar bailout of troubled financial institutions which the U.S. Treasury and Federal Reserve had to mount makes emerging market crises look like footnotes by comparison. And the benefits of financial innovation? They were hard to see amidst the rubble. As Paul Volcker would say afterwards in all seriousness, the automated teller machine had brought far more gains to most people than any asset-backed bond.[19] Or as Ben Bernanke put it, much more diplomatically, "One would be forgiven for concluding that the assumed benefits of financial innovation are not all they were cracked up to be."[20]

Where exactly did it all go wrong? The subprime mortgage crisis demonstrated once again how difficult it is to tame finance, an industry which is both the lifeline of all modern economies and the gravest threat to their stability. This is not news to emerging market economies. But in advanced economies, the challenge was obscured by a half century lull of financial stability. Before the Great Depression, the United States had been hit by major banking crises every fifteen or twenty years or so. Nothing comparable took place in the subsequent fifty years until the savings and loan crisis of the 1980s.[21]

This era of financial stability owed its existence to an uneasy accommodation between Main Street and Wall Street—between the real and financial sectors—following long centuries of experimentation. The quid pro quo took a simple form: regulation in exchange for freedom to operate. Governments brought commercial banks under a heavy dose of prudential regulation in return for providing public deposit insurance and lender-of-last-resort functions. And equity markets were encumbered with extensive disclosure and transparency requirements before they could develop.

The financial deregulation of the 1980s upended the bargain and ushered us into new, uncharted territory. Advocates of liberalization argued that supervision and regulation would hinder financial innovation, and in any case government agen-

cies could not possibly keep up with the technological changes. Self-regulation was the way to go. A multitude of new financial instruments emerged, with strange acronyms and risk characteristics about which even the most sophisticated market players were ultimately clueless.

Financial globalization greatly intensified the fragility of the newly deregulated system. It enabled banks, firms, and governments to greatly boost their short-term borrowings, increasing leverage throughout the system. It also created much stronger contagion across national borders, as financial difficulties in one country would now quickly contaminate the balance sheets of banks in others. Prior to the late 1980s, the United States had been practically self-sufficient in credit. U.S. banks borrowed from other countries, but this was offset by long-term lending abroad in the form of direct investment, and the two sides of the ledger balanced. Later on, foreign borrowing would finance more than half of credit expansion at home.[22] An increase in Asian saving rates in the late 1990s—itself a response to Asia's own financial crisis a decade earlier—made a particular contribution. It drove down real interest rates in the United States and Europe and sparked a credit boom, inducing banks to go on a wild goose chase for yield and inflate their balance sheets.

Free capital mobility ensured that investors in Europe and elsewhere ended up sitting on a pile of toxic mortgage assets exported from the United States. Whole countries such as Iceland turned into hedge funds, leveraging themselves to the hilt in international financial markets in order to exploit small differentials in margins. Calls for increased regulation of finance were rebuffed by pointing out that banks would simply get up and move to less regulated jurisdictions.[23]

The immediate causes of the financial crisis of 2008 are easy to identify in hindsight: mortgage lenders (and borrowers) who assumed housing prices would keep rising, a housing bubble stoked by a global saving glut and the reluctance of Alan Greenspan's Federal Reserve to deflate it, financial institutions addicted to excessive leverage, credit rating agencies that fell asleep on the job, and of course policy makers who failed to get their act together in time as the first signs of the crisis began to appear. Without these regulatory failings, the glut in global finance would not have proved dangerous; after all, low interest rates are a *good* thing insofar as they enable higher investment. And without the global commingling of banks' balance sheets, the consequences of inadequate regulation would not have been as damaging; bank failures would have remained local and their effects contained.

A deeper problem will need to be addressed in the long term: deregulation and the pursuit of hyperglobalization have allowed a huge chasm to develop between the reach of financial markets and the scope of their governance. Domestically, large reservoirs of systemic risk untouched by regulation and supervision have been created. Internationally, the result has been fickle, volatile, and crisis-prone capital flows: abundant when they are least needed and nowhere to be seen where they could be doing some good. Almost all observers agree that the entire regulatory system needs to be rethought, both domestically and internationally.

But the very idea that we could erect a perfect system of global regulation for international financial flows is itself a fairy tale. A fox understands that markets and regulations are both condemned to remain imperfect. The systems we devise must anticipate both sets of weaknesses. It will take lots of practice and experimentation to get the balance right. It may be hard to say, "Thanks, but no thanks," to the siren song of financial liberalization and innovation, but in a world of imperfect regulation and divided sovereignty, that will often be the only safe option.

Our international financial architecture will have to accommodate countries that want tighter controls on finance as well as those with more relaxed attitudes toward financial innovation. That means leaving room for capital controls and financial transaction taxes—imposed by national policy makers—in addition

to improved international regulatory standards designed, among other things, to penalize excessive leverage. We cannot return to the Bretton Woods regime, but we can still learn a lot from that experience. The compromise that energized the world economy in the aftermath of World War II will need to be refashioned for a world that has changed much in the interim.

It's the Economists, Stupid!

Ask populists why the finance industry went unchecked and was allowed to wreak such havoc, and you will likely hear a story about political power. The industry has become so powerful in the United States, the argument will go, that it has turned the country into a banana republic where politicians are beholden to Wall Street's interests. In the aftermath of the subprime crisis an unlikely group of allies joined these populists: mainstream economists. The most powerful salvo was fired by Simon Johnson, an economist with solid establishment credentials, in a strongly worded piece in the May 2009 issue of *The Atlantic*. Johnson had been the chief economist of the IMF in the run-up to the crisis, which gave his words added credibility.

Johnson laid the blame for the crisis squarely on Russian- and Asian-style cronyism in the United States. Wall Street had become so powerful that it got whatever it wanted out of Washington. Lax regulation, the promotion of imprudent levels of home ownership, low interest rates, the fragile U.S.-China financial relationship—everything that had precipitated the crisis had been promoted by the financial industry. Banks may not have guns and armies at their disposal, Johnson argued, but they had other means that were equally effective: campaign contributions, the revolving door between Wall Street and Washington, and an ability to foster a belief system supportive of their interests. "A whole generation of policy makers has been mesmerized by Wall Street," he wrote.

The result was "a river of deregulatory policies that is, in hindsight, astonishing." Johnson listed among these the free movement of capital across borders, the repeal of regulations separating commercial and investment banking, the major increases in the leverage allowed to investment banks, and many others.[24]

It was hard to disagree with the view that the banking industry had exerted a generally malign influence on the direction of economic policy, but I thought Johnson's article paid too little attention to the role of economists and their ideas in erecting the belief system that had produced the "river of deregulatory policies" Johnson complained about. By placing the blame on the power of the finance industry, his article seemed to exonerate economists. Most perplexing of all, Johnson himself had been an active supporter of financial liberalization in the global economy and had remained ambivalent about the value of tightening regulations until late in 2007.[25] Nothing that capital market skeptics were recommending prior to the crisis was as radical as the solution that Johnson would eventually adopt in his *Atlantic* piece, which consisted of deep surgery to cut banks down to size.

In a subsequent interview, Johnson would clarify when and how his change of heart took place. He recalled how during his early IMF days he would happily sign off on reports recommending financial liberalization to developing countries. "If you have strong institutions and a well-run regulatory structure, you can and should move towards capital market liberalization," he thought at the time. His epiphany came apparently one evening in September 2008 at the height of the financial crisis. Now, he said, he would no longer condone financial liberalization so easily. "We should go back and look at everything," he added, "and wonder about if anybody has the regulatory structures able to withstand what happens when you liberalize."[26] Mugged by reality, Johnson had turned into a fox.

Johnson should be admired for being so upfront about his conversion. In his new role, he has become one of our most clear-

sighted voices on the dangers of financial excess. At the same time, he is himself a strong reason to believe that his *Atlantic* argument was incomplete. No one can doubt that banks became politically powerful in the United States, but in getting policy makers to do their bidding they received immense help from economists. The economists' narrative gave intellectual cover to freeing up finance and convinced politicians that what was good for Wall Street was also good for Main Street. Beyond the United States, economists sparked a *global* push for financial liberalization, as we have seen. The French Socialists embraced financial deregulation not because of Wall Street's influence but because their own technocrats had no other alternatives to offer. The IMF's push for free capital flows was supported by the economics profession's best minds.

Simon Johnson and other economists who had influence and held policy positions actively encouraged the process. I find it difficult to believe that they were the hired guns of the banking industry. If the IMF's chief economist was complacent about the risks of financial liberalization, it wasn't because he was in the pocket of the industry. I'd rather believe Johnson's own story; his views changed because his understanding of the facts changed. Economists converged on a particular (and misleading) story about how financial markets worked and they oversold it to policy makers. The ideas of economists and the interests of Wall Street complemented each other.[27]

Why Economists Get It Wrong

A common complaint against economists is that they have a single, uniform model of the economy that relies on narrow and unrealistic assumptions. This misses the true source of the problem. As we have seen, Keynes, Tobin, and other economists who preferred restraints on global finance had models in mind that were quite

different from those that animated finance enthusiasts. When an economist like Simon Johnson changes his model, it doesn't make him less of an economist. Professional training as an economist requires acquiring familiarity with an entire repertory of diverse models, each of which produces different results. Economists recognize the complexity of the world, which is why they have so many models of it. The true motto of an economist is, "Tell me your assumptions, and I will tell you how markets will work."

How then do economists make policy recommendations? The applied economist's *craft* hinges on striking the right balance between realism and tractability: picking assumptions so as to do the least amount of damage to the underlying reality while still being able to say something meaningful about the consequences of different policies. Models become useful when applied judiciously and in the relevant context. It is in practicing this craft that economists have frequently gone wrong. The hedgehogs among them have fallen into the trap of putting too much emphasis on a single model, at the expense of the rest. By displaying excessive confidence and downplaying the risks of misdiagnosis ("What if we have the wrong model?"), they have often led themselves and policy makers astray.

There are good sociological reasons why academic economics follows fashion and fads. New models and ideas naturally take economics departments by storm and drive scholarly research in one direction and then another. But the "science" of economic policy is not like physics, where each generation of ideas successively displaces the previous generation's. At best, we learn how to tackle the complexities of the world a bit better with each new wave of research.

The new thinking that developed after the 1970s and that underlay financial deregulation did not make the insights of Keynes and Tobin any less relevant. The "rational expectations" revolution, which took as its premise that individuals do not make systematic prediction errors about the future course of the economy, gave

us a better appreciation of the role that anticipatory, forward-looking behavior by firms, workers, and consumers plays in shaping economic outcomes. The "efficient market hypothesis," built on the joint supposition of rational expectations *and* frictionless markets, taught us about the good that financial markets can do in the absence of transaction costs. These ideas made useful contributions to economics and to economic policy. But they did not upend everything we already knew. They simply gave us additional tools with which we could anticipate the economic consequences of different circumstances.

An honest practitioner of academic economics should respond with a blank stare when asked what the implications of his work are for policy. "That depends on so many other things," would be the appropriate answer. Frustrating perhaps for the student or the journalist, but correct nevertheless. When economists mistake academic fashions for the real thing, they do considerable damage. When the hedgehogs' highly stylized models become the basis for one grand narrative, the world needs to run for cover.

The antidote to these tendencies requires us to maintain a healthy skepticism toward the reigning economic fad of the day, to keep history's lessons alive, and to rely on local and experiential knowledge in addition to economic theory. The world is better served by syncretic economists and policy makers who can hold multiple ideas in their heads than by "one-handed" economists who promote one big idea regardless of context.[28]

Poor Countries in a Rich World

In the first lecture I give them, I confront my economic development students at Harvard with the following teaser: Would you rather be rich in a poor country or poor in a rich country?

The question typically leads at first to a lot of nervous shuffling in the seats and puzzled looks. So I clarify the question. I ask them to consider only their own consumption and not worry about the well-being of others in the society they choose. I then spell out what I mean by "rich" and "poor." I tell them that they should think of a rich person as someone in the top 10 percent of a country's income distribution while a poor person is in the bottom 10 percent. Similarly, a rich country is in the top decile of all countries ranked by average income per person while a poor country is in the bottom decile of that list. Now, I say, you are ready to answer the question. Which would you choose?

The students are graduate students and have been to developing countries, so they have all seen the flashy cars the wealthy drive and the mansions where they live. Most have little hesitation in responding that they'd rather be rich in a poor country.

That is the wrong answer. The correct answer is "Poor in a rich country"—and it's not even close. The average poor person in a rich country, according to my parameters, earns *three times more*