The Search for Stability in an Integrated Global Financial System

The growing interconnectedness of national financial systems is a key dimension of globalization. Today even small players in the global marketplace, such as individual investors and small businesses, can direct their wealth around the world almost as easily as moving pieces on a chessboard—a privilege that formerly only biggest firms and richest people enjoyed. This increased freedom of financial movement has the potential to benefit all of us by facilitating trade, enhancing the diversification of assets, and expanding the resources available for development.

Counterbalancing this greater freedom and opportunity, however, are the dangers inherent in all financial systems, whether of local, national, or international scale. The natural dynamic of financial markets is one of boom and bust. Firms, industries, and even whole countries can go in and out of fashion, as it were, among a scattered and contentious population of investors who often behave more like an angry herd than the rational *homo economicus* of financial theory. Whole economies can be left trampled and broken in the wake of such stampedes. Some mechanism of regulatory control is needed to harness these flighty markets and ensure that their vital energy is directed to productive purposes.

National financial systems, especially in the world’s rich countries, have evolved such mechanisms to varying degrees of effectiveness. They include central banks, insurance and securities regulators, bank deposit insurance regimes, and bankruptcy courts, among many others. But no strong analogue to most of these institutions yet exists at the global level, and as the international financial system becomes increasingly globalized, their absence is ever more keenly felt. This chapter explores the ongoing integration of the global financial system and the ongoing challenge of making it work for the benefit of all.

Financial Integration Yesterday and Today

The global integration of financial systems, with all its opportunities and dangers, is a topic of enormous current interest, but by no means a new one. National financial systems, especially those of the major industrial countries, were by some measures almost as closely intertwined in the first decade of the last century as they are in the first decade of this century. A long period of financial disintegration occupied much of the early and middle decades of the twentieth century—long enough perhaps to create the perception that global financial interconnectedness is the exception rather than the norm. But that period of low global integration now appears to have been an interruption in a very long term trend toward an ever more globalized world financial system.

Figure 1 is adapted from a chart constructed by Maurice Obstfeld of the University of California, Berkeley, a long-time student of international financial integration and the coauthor of a leading international economics textbook. The figure shows dramatically the rise, fall, and recovery of global financial integration since 1860. (How exactly Obstfeld measures integration is a technical matter that need not concern us
Integration is seen to rise steeply, and even accelerate, in the last four decades of the nineteenth century. This was the period of the international gold standard, when each of the world’s major industrial countries fixed the price of gold in its own currency: for example, the price of gold in the United States was set at $32 an ounce. By doing so, they automatically fixed the price of each other’s currencies in terms of their own—that is, their exchange rates. The ability to exchange one currency for another at a predictable rate engendered confidence among would-be international investors, encouraging them to take the risk of sending their capital abroad.

With the outbreak of World War I, however, this integrated world financial system collapsed. Integration then struggled to rebound during the 1920s, only to plunge again with the onset of the Great Depression, reaching new lows by the end of World War II. After that war ended in 1945, integration by Obstfeld’s measure began a steady recovery; not coincidentally, this period of reintegration also followed the creation of the Bretton Woods international monetary regime a few years after the war. That arrangement once again linked national currencies to gold, this time indirectly via links to the U.S. dollar.

After 1970, despite the breakup of the Bretton Woods regime and the shift to floating exchange rates, integration surged: between 1980 and 2000 Obstfeld’s measure rose more than in any previous twenty-year period in the figure. However, its level at the end of that period was only marginally higher than its previous peak in 1914. Financial integration seemed to have come full circle from the long hiatus of war and depression, and in recent years it appears poised to continue its long-term upward trend.

Figure 2 uses a very different measure to demonstrate the same historical cycle of financial integration, disintegration, and reintegration at a higher level than before. This measure is based on differences in interest rates from country to country and on the following rationale. The “law of one price” says that two sellers cannot charge very different prices for the same good if buyers can purchase it from one seller as easily as from the other. For example, if one gas station is selling regular unleaded for $2.40 a gallon, the station across the street cannot set a price of $3.00 and expect to sell very much gasoline. Eventually the price at both stations will settle at roughly the same level.

Interest rates on borrowed money should similarly converge—after all, the interest rate is simply the price one pays to borrow money. This principle should also apply across countries, even if they use different currencies, and even if the demand for money—to finance business investment, home mortgages, and the like—is greater in one country than in the other. The law of one price says that savings should flow from countries with less demand for money to countries with greater demand, equalizing the interest rate.

However, if two countries are not closely integrated financially—that is, if savings in one country do not flow easily to the other—average interest rates in the two countries can diverge. For example, assuming that the supply of savings is the same in both countries but that the demand for borrowed money differs, competition for those scarce savings will be greater in the country with stronger demand; if savings cannot flow
from the country with weaker investment demand, competition will drive the interest rate up in the country with stronger demand.

It follows that one can measure financial integration across countries by the extent to which their interest rates move in tandem, or, equivalently, the extent to which the difference in their interest rates remains close to zero. Figure 2 plots the difference in average real (that is, inflation-adjusted) interest rates between the United States and the United Kingdom over most of the same period shown in figure 1. From 1870 until about the outbreak of World War I, the average difference in interest rates, shown by the solid line, is usually below 1 percentage point in absolute value. The standard deviation of the difference in interest rates (a measure of the variation in this difference over the course of a year, shown by the dots in figure 2) is also quite small. From then until about 1980, however, the difference between U.K. and U.S. interest rates is usually both large and highly variable. After 1980, stability returns: the difference is even smaller and more stable than it was before 1914. This evidence from interest rates is thus quite consistent with the pattern observed in figure 1: countries were closely financially integrated before World War I and after 1980, and not in the period in between.

Yet a third way of demonstrating the historical pattern of financial integration is by looking at gross international asset positions. The first two figures were based on flows of capital, that is, the amount entering or leaving a country in a given year. Figure 1 measured these flows directly, and figure 2 indirectly through the effect of these flows (or lack of flows) on interest rates—that is, through prices. Figure 3 now looks at how much of the total stock of global capital is owned by someone residing in a different country from that in which the capital itself is invested—this is how “foreign” capital is conventionally defined. These stocks of foreign capital represent the accumulated capital flows of current and past years, less any reflow to the country of origin, much as the level of a reservoir reflects the accumulation of rainfall in the surrounding area over some past period, less any water released from the dam.

When this stock measure of foreign capital is taken as a ratio to gross domestic product (GDP) for a sample of mostly industrial countries, the pattern is again one of high integration in the early 1900s, a sharp decline during the world wars and the interwar years, and a sharp increase once again after World War II. Also as in the first two figures, financial integration is seen to have only recently risen above its previous peak. Capital assets held outside their country of origin amounted to just over half of all assets in the early 1900s, but only about 10 percent by 1945, rising to about two-thirds of all assets by 1990.

However, when the denominator is world GDP rather than the combined GDPs of the sample countries, the gross foreign asset position is a much smaller 20 percent or less in the earlier period, rising to about 60 percent in the later period. This way of looking at the data suggests that international financial integration today has gone far beyond

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*B correct? They are never < 0 in the figure.
*C “a year” correct?
*D I’m guessing that’s what the “sample” is
anything experienced in the first great era of financial globalization—a question to which we will return.

The Forces Driving Today’s Global Capital Flows

Figure 3 showed that a lot more capital is held outside its country of origin today than just thirty or forty years ago. Indeed, by scaling to GDP, the figure actually understates this growth in the foreign capital stock, because world GDP itself has grown severalfold since 1970, just as it grew severalfold from 1860 to 1970. If the figure instead reported all assets in dollars, even inflation-adjusted dollars, today’s foreign capital stock would dwarf anything seen during either the era of financial disintegration or the first era of financial integration that preceded it.

In either of those periods, one might reasonably have made the case that gross foreign capital holdings mainly reflected imbalances in countries’ current accounts. In other words, some countries were importing more goods and services from abroad than they were exporting, and foreign capital stocks mostly represented their borrowing to finance that excess of imports. The relatively small absolute magnitude of total foreign capital holdings was consistent with the scale of such imbalances. Moreover, as measured by the ratio of gross foreign assets to world GDP, there was no discernable upward trend in these holdings over the long run. This is consistent with the fact that countries cannot continue to run large deficits on current account indefinitely—eventually borrowers become repayers and perhaps even lenders themselves, while former lenders become borrowers.

Something different was clearly happening by the mid-1980s, however, and especially after about 1990. From less than 25 percent of world GDP, gross foreign asset positions surge to well over half of world GDP by 2000, with no sign of leveling off. This means that the average resident of the average country holds outside its borders an amount of wealth equal to half a year’s income. That is clearly far more than the financing of current account imbalances can explain. What could be driving these huge increases in foreign capital stocks?

The most likely answer is diversification. Prudent investors avoid putting all their investment eggs in one basket, so that the loss of one egg does not imply the loss of all of them. At the national or regional level, this argues for spreading one’s wealth geographically and across industries, so that one’s fortune is not wiped out by a single bad harvest in one state or province or the bankruptcy of a single company or industry. The same logic applies on a global scale: even whole countries can experience extended periods of poor economic performance; therefore diversification across countries can further protect one’s portfolio. This impulse to diversify can explain why investors would invest large shares of their wealth in countries other than their own; more than that, it can also explain why they would invest even in countries whose investment opportunities are similar to those available at home.

why is assets/world GDP different from assets/sample GDP in the earlier period? Also, the lines showing the US and UK shares seem to clutter the figure, and the discussion of how the US took over from the UK as global financier seems a digression from the main story
It was different in earlier eras such as the turn of the twentieth century. Development, and specifically the high returns expected from investing in growing developing countries, was the motive behind most foreign investment—not diversification, although that surely played a role as well. The greater share of international capital flows went from the rich industrial countries of that time to poorer and mostly unindustrialized countries to build infrastructure and develop industry in the latter, which were usually the colonies or former colonies of the rich countries. The United Kingdom was the most important supplier of this development capital, and the United States—then still largely undeveloped—was the most important recipient. Today, in contrast, although we continue to see a flow of capital into developing countries, this is dwarfed by the amount of capital flowing from rich countries to other rich countries, some of which are both important senders of capital and important recipients.

This shift in the direction of capital flows is evident in figure 4. Each pair of bars represents the set of countries whose incomes per capita lay, in either 1913 or 1997, within a certain income range relative to income per capita in the United States. Thus, for example, the pair of bars in the far left of the figure represents the poorest countries, those whose incomes per capita were less than one-fifth of U.S. income per capita at the time. The height of the bars represents the percent share of the total foreign capital stock residing in that set of countries in either 1913 or 1997. Thus, for example, in 1913 about a quarter of all of the world’s foreign capital (which, again, means capital held outside its country of origin) was in the poorest countries. Since all possible levels of income are represented in the figure, the sum of the bar heights for each year equals 100 percent, by definition.

The figure shows that foreign capital was distributed very differently around the world in the first era of financial globalization than in the second. In 1913 the poorest countries of the world were home to almost exactly the same amount of foreign capital as the next poorest group (those with income per capita between 20 and 40 percent of U.S. income per capita), and together these two groups were home to slightly more foreign capital than the rich and moderately rich countries (those with income per capita at least 60 percent of the U.S. level). (The low share of foreign capital in the countries in the middle pair of bars perhaps indicates that few countries fell into that category.) In 1997, however, the world’s rich countries claimed roughly 80 percent of the world’s foreign capital, or four times as much as the rest of the world combined. This, too, is hard to square with the idea that most capital flows in recent decades have been for purposes of development; it seems clear that investors in the rich countries have been sending their capital to other rich, already-developed countries, for purposes of diversification.

If diversification is the motive behind the bulk of today’s enormous international capital flows, the question that must still be answered is, What has changed? Why has diversification emerged as a dominant force only in the current era of globalization? After all, diversification was no less worthy a motive for sending capital abroad in the 1800s and early 1900s than it is today. What prevented investors back then from spreading their capital liberally around the whole world, diversifying their holdings in other rich countries as well as seeking out high rates of return in developing countries? The answer seems to be threefold: technological advance, specialization, and deregulation are all driving forces behind the driving force of diversification, and all are closely linked to globalization.
The role of technology is perhaps the easiest to understand. As is well known, advances in telecommunications have made it far easier and faster to send money and credit around the world than ever before, and easier and quicker to bring that capital home when needed. Just as important, telecommunications—and in particular the Internet—make it far easier to know what is happening in markets all around the world. And information about markets, including markets in other countries, is the lifeblood of international finance. Sound investment implies the ability to monitor the use of one’s capital by those to whom it has been entrusted; those who forgo such monitoring are unlikely for long to have capital to risk. The growth of telecommunications has also led to a revamping of industrial structures in the financial sector, allowing nonbank entities such as utilities (and telecommunications firms themselves) to market financial services. The evolution of ever-faster telecommunications with ever-greater bandwidth has thus contributed greatly to investors’ ability to diversify their holdings worldwide.

With increased globalization also comes increased specialization in the provision of financial services. Economies of scale are perhaps as important in finance as in any other industry. The incentive to exploit these scale economies drives the growth of financial centers such as New York, London, and Tokyo and concentrates the issuance and trading of financial instruments in these global hubs. The concentration of both borrowing and lending services in these global financial capitals—and often in a handful of large financial conglomerates headquartered there—partly explains the growth of large foreign capital positions in the rich countries.

The third driving force, deregulation, itself has three important dimensions: deregulation of products, deregulation of domestic markets, and deregulation of cross-border financial transactions. The deregulation of products is partly seen in the bewildering array of new financial instruments that financial institutions now offer, some of which—for example in the exchange rate arena—are critical to the safe and efficient operation of international financial and other markets. At the same time, financial markets themselves are being deregulated, for example as institutions formerly confined to one small part of the financial services domain are allowed entry into others. Commercial banks in many countries are now being allowed to expand into investment banking, insurance, brokerage, and other related services. In addition, deregulation has spurred a wave of mergers and acquisitions of financial companies, creating megafinancial corporations that can efficiently exploit the increased economies of scale mentioned above. Cross-border mergers of financial companies have increased to the point where now make up 30 percent of all such mergers. Finally, deregulation of international transactions has made it possible for leading financial institutions in the developed countries and elsewhere to operate more freely in less developed markets, bringing in best practices while also contributing to the concentration of activity in the large financial centers. In some emerging markets foreign banks control 50 percent or more of the banking system.


I don’t see how this explains why the shift from mainly rich-poor flows to mainly rich-rich flows. Did I pose the wrong question in the paragraph above??
We need some discussion here of the consequences—positive and negative—of global financial integration itself. The negative consequences (crises, mainly, I guess) are what motivate the discussion of international actions that follows. The transcript discusses, in section 5, the consequences of those international actions, especially the problem of standard setting without developing-country representation, but that is more of a “controversy” (see below; the chapter lacks a “controversies” section as such, but that’s OK). So maybe here we should have some of the usual doctrine on why financial liberalization and free capital flows are potentially a good thing, and some brief history of the 1990s’ crises and a discussion of why they occurred and how they represent the dark side of that liberalization.

International Initiatives to Enhance Global Financial Stability

The financial crises of the late 1990s made it clear that action needed to be taken to strengthen the international financial system, to prevent further crises and possibly a global financial meltdown. There ensued a lengthy and often-heated debate over what has come to be called the international financial architecture, or the whole of the system that monitors, coordinates, regulates, and otherwise influences cross-border capital flows. That architecture has many rooms and corridors, only a few of which this chapter will explore.

One generally agreed broad principle in the redesign of the international financial architecture has been to retain its basic market orientation. The free operation of financial markets has, on balance, served the world economy well. But, as we have seen, financial markets have certain dynamics that other markets do not, which can lead to instability under some circumstances. And instability in one market in one country can have spillover effects on markets in other sectors and other countries. Thus there remains a role for official or semiofficial institutions at the international level.

However, any effort to maintain and improve stability in global financial markets must start from one basic fact: no international body has the legal authority to exercise direct control over international transactions under normal circumstances. There is, for example, no global central bank analogous to, say, the U.S. Federal Reserve, that can set bank reserve requirements globally, nor is any international agency empowered to issue deposit insurance, mandate uniform accounting standards, or legislate financial disclosure requirements for firms issuing stock. And there is little likelihood of the countries of the world agreeing to establish such global financial governing bodies in the foreseeable future. The International Monetary Fund is perhaps the closest thing, but its power derives mostly from its ability to step in and impose rules on countries already in crisis, as a condition to receive the Fund’s emergency lending. The Fund can and does monitor the transactions of countries in global financial markets and issues warnings when appropriate, but there is little else it can do to actively prevent a financial crisis. Legal authority for regulating financial systems continues to reside mainly at the national, not the international, level.

Given this reality, proposals to reform and reinforce the international financial architecture have had a twofold focus. The first is to encourage countries to voluntarily
agree on and enforce common standards for financial regulation, and the second is to improve monitoring and surveillance by the IMF and other international institutions. Much progress has already been made in the setting of international financial standards and their adoption by countries around the world. Indeed, no fewer than sixty such standards have been promulgated, although only about twelve have been widely adopted and are being supervised by the IMF and/or the World Bank, and thus can be considered “core” international standards. Much of the impetus for standards setting has come from the Basel Committee on Banking Supervision, which has concluded two successive international accords on standards for banking, dealing mostly with capital requirements, standards for national supervision, and disclosure of risks. The Organization for Economic Cooperation and Development has promulgated standards for corporate governance. Standards have also been developed for fiscal and monetary policy transparency on the part of national governments, for insurance regulation, for securities market regulation, for corporate governance and supervision, and most recently for the combating of money laundering and terrorist financing. Standards for national bankruptcy procedures have also been issued—an important development because, as discussed below, efforts to establish an international bankruptcy court have so far failed to reach fruition. These are just a few of the major international standards already in existence.

Increased surveillance in the wake of the crises of the late 1990s has been largely within the purview of the IMF. In addition to its past surveillance efforts, the IMF has embarked on two new initiatives. The first is the Financial Stability Assessment Program, which the IMF operates jointly with the World Bank. This program identifies strengths and vulnerabilities in countries’ financial systems, determine how key sources of risk are being managed, and ascertains developmental and technical assistance needs in the countries’ financial sectors. The second is the Reports on Observation of Standards and Codes, which, as the name indicates, consists of regular reports on how well countries are implementing and adhering to the various new standards promulgated by the Basel Committee and others.

An important historical fact about the international standards approach, and one that has led to some criticism, is that the standards have been shaped for the most part by the world’s developed countries. Leadership in this area has come mostly from the Group of Seven and the Group of Ten, whose membership consists of the largest industrial countries. The developed countries are also more influential within the World Bank and the IMF than would be the case if voting rights in those organizations were determined by population, or by “one country, one vote” as in the United Nations. Developing countries, consequently, have had relatively little input in the standards discussion: few emerging markets are represented in the Financial Stability Forum, and the newly created Group of Twenty, which does include developing countries, has had relatively little input thus far, and its role remains unclear. In the view of some, the current balance of influence amounts to financial regulation without representation.

The dominance of the developed countries in the standards setting process was to some extent inevitable: it was these countries, with their already well developed financial markets, that were mostly at the forefront of the issues. These countries also had most of the resources and expertise to undertake a thorough review of the existing system. Moreover, the developed counties had already been working in concert with each other to
develop common standards, through forums such as the Basel process and the OECD. Thus the global promulgation of standards was largely just a matter of bringing these already existing or in-process standards to the rest of the world.

Yet the critique that the standards process has unfairly left the developing countries on the outside looking in is not without merit. Not only did the standards setting process give greater weight to the interests of developed-country governments; it also gave representatives of the financial and corporate sectors of those countries an opportunity to lobby for their own, private interests. As a consequence, the current set of standards is hardly a neutral one between developed and developing countries. Rather, it tends to favor the former, which are the global economy’s traditional lenders, over the latter, the traditional borrowers. Moreover, the process has tended to leave out some countries, like China, that were small players in the world economy when the process began but are certain to become major players in the near future.

As a result, the poorer countries of the world have had to adapt or catch up to a set of standards that they had little voice in creating, even as they are making prodigious efforts to build and expand their often-primitive financial systems. At best, one can say that they had few outmoded national standards to scrap and replace. But the developing countries have good reason to wonder if the new global standards are designed in their interest, and this raises issues about the standards’ legitimacy. For example, the standards promote openness to entry by foreign banks and other financial institutions into national financial markets. Although this may help developing countries “import” state-of-the-art technology and worldwide best practice, it clearly works to sustain the financial dominance of the developed countries, in which nearly all the world’s leading banks are headquartered. More broadly, whereas the new standards typically constrain national autonomy, they put no such constraints on private global investors’ choices. Perhaps most worrisome of all, the standards presume that a one-size-fits-all approach is best, without taking into consideration the very real differences between countries in terms of size, development, history and culture, and financial sophistication.

Arguably, one adverse consequence of this perceived lack of legitimacy has already occurred, namely, the failure to create an international bankruptcy court. Such an institution (also called a sovereign debt reduction mechanism, or SDRM) has great potential to prevent future financial crises, or at least mitigate their destructiveness, by bringing to situations of country insolvency the same structure and discipline that now applies within countries with effective bankruptcy laws. Often the prospect of a country’s default on its debt precipitates a crisis, as investors crowd the marketplace to sell off their holdings before others do, because they fear that if they wait there will be nothing left to sell. Like Chapter 7 or Chapter 11 procedures in the United States, an international bankruptcy institution could, in effect, call a timeout in such a situation. This would give the country a chance to recover its footing, or at least allow for an orderly disposal of any financial assets of doubtful value. Unfortunately, the SDRM proposal has so far gone nowhere, in part because of opposition from the U.S. administration, but also because emerging market economies have likewise failed to support it. Some of these countries fear that this new institution, too, would be tailored to the developed countries’ preferences and interests rather than their own.

Another, more obvious consequence of the lack of universal support for the redesigned international financial architecture is that financial crises have continued.
They have occurred with less frequency and less of a propensity for spillover than during the 1990s, but the crises that have occurred have sometimes been severe, as in Argentina and Turkey. There have been some near misses as well. Other countries have responded to the continued threat of instability by amassing huge foreign exchange reserves as a buffer against a future crisis. China, India, and Japan have all expanded their reserves severalfold since 1997. Meanwhile, of course, when crises have occurred, they continue to be managed in the contentious, ad hoc way that earlier crises were. And the risks of a major future crisis are considerable—and will remain considerable until the longer-run issues of the legitimacy of the international financial architecture are addressed.

[given the discussion of exchange rate regimes in the history section, maybe some discussion of such regimes would be worth adding here or above]

[a brief discussion of the World Bank’s role is needed for conformity with the other chapters]