Journal of Money, Credit and Banking / Volume 39, Issue 2-3 / pp. 259-294

Is Financial Globalization Beneficial?

FREDERIC S. MISHKIN

First published: 18 April 2007
https://doi.org/10.1111/j.0022-2879.2007.00026.x
Citations: 127

JMCB-FDIC Lecture presented at the FDIC, Washington, DC on September 22, 2005. This lecture draws heavily on material in Chapters 1–7 of my forthcoming book, *The Next Great Globalization: How Disadvantaged Nations Can Harness Their Financial Systems to Get Rich.* I thank for their helpful comments the following who have commented on this material: Christian Broda, Charlie Calomiris, Jose De Gregorio, Peter Dougherty, Bill Easterly, Barry Eichengreen, Reuven Glick, Steve Haber, Joon-Ho Hahm, Michael Klein, Ross Levine, Geraldo Licondro, Debbie Lucas, Martin Redrado, Dani Rodrick, Maury Obstfeld, Guido Sandleris, Sergio Schmukler, Alan Taylor, Jane Tufts, and participants in seminars at the FDIC, Federal Reserve Bank of New York, New School, Purdue, University of Scranton, University of Delaware, Columbia, and Penn State. I also thank Emilia Simeonova for helpful research assistance. Any views expressed in this paper are those of the author only and not those of Columbia University or the National Bureau of Economic Research.

Abstract

This lecture examines whether financial globalization is beneficial to developing countries by first examining the evidence on financial development and economic growth and concludes that financial development is indeed a key element in promoting economic growth. It then asks why if financial development is so beneficial, it often does not occur. It then goes on to examine whether globalization, particularly of the financial kind, can help encourage financial and economic development and argues that it can. However, financial globalization does not always work to encourage economic development because it often leads to devastating financial crises. The issue is thus not whether financial globalization is inherently good or bad, but whether it can be done right.

The current Age of Globalization in the last 50 years is actually the second great wave of globalization of international trade and capital flows. The first occurred from 1870 to 1914, when international trade grew at a 4% rate annually, rising from 10% of GDP in 1870 to over 20% in 1914, while international flows of capital grew annually at 4.8% and increased from 7% of GDP in 1870 to close to 20% in 1914. [1] With the coming of World War I, the first Age of Globalization came to an end, leading to what Rajan and Zingales (2003a) have referred to as the "Great Reversal." Given the economic and political nightmares that followed the Great Reversal, in the fading days of World War II, the victorious allies decided to create a new international system to promote world trade and prosperity, which resulted in the establishment of two new international financial institutions, the International Monetary Fund (IMF) and the World Bank, and also the General Agreement on Tariffs and Trade (GATT) whose successor organization is the World Trade Organization (WTO).

These new institutions were created to promote globalization and in this they were extremely successful. Once the world economy returned to normal by the end of the 1950s, globalization

advanced at a rapid pace. From 1973 until today, world trade grew at a pace of 11% annually, rising from just over 22% of world GDP to 42% today (Estevadeordal and Taylor 2002). Since 1973, the flows of capital between countries have also exploded, rising from 5% of world GDP to 21% today (World Bank 2004). We are clearly in the second wave of globalization.

Although economic globalization has come a long way, in one particular dimension it is very far from complete. As is documented in Obstfeld and Taylor (2004), financial globalization is primarily confined to rich countries. Despite the huge increase in international capital flows in recent years, they primarily flow from North to North, that is from rich to other rich countries which are mostly in the northern hemisphere, rather than from North to South, from rich to poor countries. There are two complementary reasons why capital flows occur: they can move funds from countries where the marginal productivity of capital is relatively low to countries where it is high, or they can facilitate diversification. Most international capital flows are just exchanges of assets between rich countries and because these countries are likely to have similar marginal productivity of capital, these capital flows primarily reflect diversification. At the same time, we see much less international capital flowing to poor countries to enhance their economic development, which would likely be driven by the other motive for capital flows.

As Lucas (1990) has pointed out, this feature of international capital flows is a paradox: Why hasn't capital flowed from rich to poor countries? With substantially lower amounts of capital in poor countries, we might think that capital would be very productive there, thus resulting in extremely high returns in poor countries and massive flows of capital from rich to poor countries. We sometimes see this happening and it does explain why there has been a big increase in the amount of capital that has moved to poor countries in recent years, but it is only one-fifth of total international capital flows. [2]

When governments are added into the picture, recent developments are even more surprising. Emerging market countries have actually been sending capital to rich countries. The United States is currently running enormous trade and current account deficits of over $600 billion and these deficits are being financed by loans from foreigners, with emerging market countries providing on the order of $200 billion per year. The Chinese government, for example, has accumulated over $800 billion of foreign assets, and is now one of the largest holders of U.S. Treasury securities in the world.

Also remarkable is that capital flows from North to South relative to total capital are far smaller than they were in the first Age of Globalization in the late nineteenth and early twentieth centuries. By 1914, around half of the capital in Argentina, one of the most successful emerging market countries in the late nineteenth and early twentieth centuries, was supplied by rich foreign countries, particularly Great Britain (Taylor 1992, Obstfeld and Taylor 2004). Today, less than 6% of Argentine capital has been supplied by foreigners. [3] This change in the pattern of capital flows was not just confined to Argentina. In 1913, over one-quarter of the world stock of foreign capital went to countries which had a per capita income less than one-fifth of the United States, while by 1997, this figure had fallen to around one-twentieth (Obstfeld and Taylor 2004).

Financial globalization is thus far from complete. Although globalization of trade in goods and services is not controversial among economists—polls of economists indicate that one of few things they do agree on is that globalization of international trade is desirable [4] —financial globalization is highly controversial even among economists. Joseph Stiglitz, has been very critical of globalization in his best-selling book, *Globalization and Its Discontents* (Stiglitz 2002), because he sees the opening up of financial markets in emerging market economies to foreign capital as leading to economic collapse.

Even Jagdish Bhagwati, one of the most prominent economists defending globalization who has recently published a book entitled *In Defense of Globalization* (Bhagwati 2004), is highly skeptical of financial globalization, stating: "But the claims of enormous benefits from free capital mobility are not persuasive" (also see Bhagwati 1998, 2002). George Soros, one of the world's most prominent financiers, opens his book, *On Globalization* (Soros 2002), with an introductory chapter entitled, "The Deficiencies of Global Capitalism." [5]

Should financial globalization be encouraged so that financial systems in emerging market economies become more integrated with the rest of the world? Will further financial globalization be beneficial to these poorer countries?

This lecture tries to provide some answers to these questions by first examining the evidence on financial development and economic growth and concludes that financial development is indeed a key element in promoting economic growth. It then asks why if financial development is so beneficial, it often does not occur. It then goes on to examine whether globalization, particularly of the financial kind, can help encourage financial and economic development and argues that it can. However, financial globalization does not always work to encourage economic development because it often leads to devastating financial crises. The issue is thus not whether financial globalization is inherently good or bad, but whether it can be done right.

1. FINANCIAL DEVELOPMENT AND GROWTH: THE EVIDENCE

The evidence that financial development and economic growth are linked is quite strong. [6] A pioneering study by King and Levine (1993) using a sample of 80 countries found that the greater was financial development back in 1960, as represented by a larger financial sector (known as *financial deepening*), [7] the larger the economic growth over the subsequent 30 years. [8] Later studies using more sophisticated techniques have confirmed this finding and indicate that a doubling of the size of private credit in an average less-developed country is associated with a two percentage point annual increase in economic growth (e.g., Levine, Loayza, and Beck 2000). Furthermore, industries and firms which are more dependent on external sources of funds and so would benefit more from financial deepening are found to grow faster in countries that are more financially developed (Rajan and Zingales 1998, Demirguc-Kunt and Maksimovic 1998). Similarly, more new firms are created in countries with developed financial systems. [9] The evidence also suggests that the way financial development raises growth is more through improvements in the allocation of capital that produces higher total factor productivity rather than through higher investment (Beck, Loayza, and Levine 2000, Levine 2004). As stated by Honohan (2004), "The causal link between finance and growth is one of the most striking empirical macroeconomic relationships uncovered in the last decade." [10]

Although financial deepening improves an economy's rate of economic growth, it is possible that poverty will remain the same or increase because the resulting growth could lead to greater income inequality. However, this is not what research finds. In countries with better financial development, the income of the poorest fifth of the population actually grows faster than average GDP per capita (Hongyi, Squire, and Zou 2001, Beck, Demirguc-Kunt, and Levine 2004, Honohan 2004), indicating that financial development is associated with reductions in poverty and even with reductions in the use of child labor (Dehejia and Gatti 2002). This finding is exactly what economic theory suggests because financial development increases the access of the poor to credit and they have the

disadvantage of having less access to credit than the rich (Banerjee and Newman 1993, Galo and Zeira 1993, Aghion and Bolton 1997).

2. WHAT IMPEDES FINANCIAL DEVELOPMENT?

Despite its benefits, financial development often does not happen in poor countries because their financial systems face severe impediments to solving asymmetric information problems.

2.1 The Tyranny of Collateral

Collateral is a crucial tool to help the financial system in general, and financial intermediaries like banks in particular, to minimize the asymmetric information problems of adverse selection and moral hazard. Collateral reduces the consequences of adverse selection because even if the borrower turns out not to be a good credit risk and defaults on a loan, the lender can sell the collateral and use the proceeds to make up for the losses on the loan. Collateral also reduces moral hazard by reducing the incentives for borrowers to take on too much risk. When a borrower has pledged collateral on her loan, she has more to lose if she cannot pay it back and so she naturally is more reluctant to engage in risky activities that make it more likely she will default and lose the collateral.

Although collateral is a prevalent feature of debt contracts for both households and businesses, in order to use a physical asset such as land or capital as collateral, however, a person must legally own it. Unfortunately, as originally documented in De Soto (2000), it is extremely expensive and time consuming for the poor in less developed countries to make their ownership of capital legal. Obtaining legal title to a dwelling on urban land in the Philippines, for example, took 168 bureaucratic steps, 53 public and private agencies, and 13–25 years. For desert land in Egypt, obtaining legal title took 77 steps, 31 public and private agencies, and 5–14 years. To legally buy government land in Haiti, an ordinary citizen had to go though 176 steps over 19 years. [11] These barriers do not mean that the poor do not invest. They still build houses and buy equipment even if they do not have legal title to it. Indeed, the amount of this capital is huge: by De Soto's calculations, the “total value of the real estate held but not legally owned by the poor of the Third World and former communist nations is at least $9.3 trillion” (De Soto 2000, p. 35).

Without legal title, however, none of this property can be used to borrow funds. Because lenders usually have very little information about the spending and savings habits of the poor, the only way they would be willing to lend to the poor is if the borrowers had good collateral. But since most of what poor people have is not legally theirs, there is no way that a legal contract can be written to take over this capital if the borrower defaults on her loan.

Even when people have legal title to their property, the legal system in most less developed countries is so inefficient that collateral is often of little value. Typically, creditors must first sue the defaulting debtor for payment, which takes several years, and then, once a favorable judgment has been obtained, the creditor has to sue again to obtain title to the collateral. This process often takes in excess of 5 years, and by the time the lender acquires the collateral, it is likely to have been neglected (or looted) and thus have little value. In addition, governments often block lenders from foreclosing on borrowers in politically powerful sectors such as agriculture.

Where the financial system is unable to use collateral effectively, the adverse selection problem will be worse because the lender will need even more information about the quality of the borrower in order

to distinguish a good loan from a bad one. The result is that little lending will take place. This effect is particularly striking for lending that involves collateral such as mortgages. In Peru, for example, the value of mortgage loans relative to the size of the economy is less than one-twentieth that in the United States (Inter-American Development Bank 2005).

The poor have an even harder time getting loans because they have even less access to the legal system and so have even less collateral to offer, resulting in what Rajan and Zingales (2003b) have called a "tyranny of collateral." Even when poor people have a good idea for a business and are willing to work hard, they cannot get the funds to finance it, making it hard for them to escape poverty. The tyranny of the lack of collateral for the poor is one reason why the rags to riches story that we talk about so often in Western countries is so much rarer in developing countries.

2.2 Inability of the Legal System to Enforce Restrictive Covenants

A poorly designed legal system also makes it more difficult for lenders to enforce restrictive covenants which can reduce moral hazard incentives for borrowers to take on excessive risk. Furthermore, if the judiciary is in the pockets of the rich and politically powerful, judges may be unwilling to enforce restrictive covenants for those who are less powerful. As a result, creditors may have a much more limited ability to reduce borrowers' risk taking and so will be less willing to lend. In countries where bankruptcy proceedings are not well developed and where creditors' rights are weak, there is strong evidence that less lending to firms take place (La Porta et al. 1997, 1998, Claessens and Klapper 2002). Again the outcome will be less productive investment and a lower growth rate for the economy.

The basic design of the legal system also matters to economic growth. The common law system in which the law is continually reinterpreted by judges ends up protecting property rights far more than others and makes it easier to enforce restrictive covenants. For example, the rights of shareholders who actually own corporations, as well as the rights of creditors, are much stronger in the Anglo-Saxon legal system than in the Napoleonic code, first developed in France, which is also used in many other countries. Countries with legal systems derived from the English common law outperform those derived from the Napoleonic code in terms of both financial development and economic growth, while the performance of countries using the German or Swedish systems are somewhere in between (La Porta et al. 1997, 1998, Beck and Levine 2004).

Even more important to how well a given type of legal system works is the way it was imposed on a country. Some colonies, for example, in the Caribbean, Africa, and the Indian subcontinent, could not be settled by large numbers of Europeans because the death rates from native diseases were so high. In these colonies, legal systems were modified to benefit the small number of Europeans that ran the country so that they could exploit its resources and local population. [12] As a result, legal systems in these countries ended up not being as effective at protecting the property rights of the average person, and this became a serious handicap to growth. On the other hand, if larger numbers of Europeans were able to settle in a colony, as in North America, they were better able to resist exploitation by the home country. (The American Revolution was a dramatic manifestation of this fact.) Then the legal system ended up more effectively protecting property rights and promoted high economic growth (Acemoglu, Johnson, and Robinson 2001). [13] Indeed, differences in legal system quality resulting from different patterns of European settlement can explain three-quarters of the differences in income per capita in former colonies. [14]

The difference in how colonies were settled explains why countries whose legal system was even originally based on the English system (with its emphasis on protection of property rights) have had such different economic performance. The United States, Canada, Australia, and New Zealand, where so many Europeans settled, ended up with highly effective legal systems and became rich. On the other hand, ex-British colonies such as Jamaica, India, Pakistan, and Nigeria, where the British settled in only small numbers, had much less effective legal systems and have remained poor.

2.3 Government-Directed Credit

Leaders of governments in developing and transition countries often have programs to direct credit to themselves, to their cronies, or to favored sectors of the economy. Governments can direct the flow of funds by creating so-called development financial institutions to make specific types of loans at artificially low rates, or by directing existing institutions to lend to certain entities. Private institutions have incentives to solve adverse selection and moral hazard problems and to then lend to borrowers with the most productive investment opportunities: if they do not make good loans, they will not earn any profits. Governments have less incentives to make sure their loans are going to sound and honest companies because they are not driven by the profit motive, but by political considerations. Their programs are unlikely to channel funds to sectors that will produce high growth for the economy (**Kane 1977**). The outcome is again likely to result in less efficient investment and slower growth.

Governments can also effectively direct credit through ownership of banks, and state-owned banks are very common in many developing and transition countries. Again, because of the absence of the profit motive, these state-owned banks have little incentive to allocate their capital to the most productive uses. [15] Indeed, the primary loan customer of these state-owned banks is often the government, which often does not use the funds wisely. Greater state ownership of banks in 1970, is associated with less financial development and lower growth, and this effect is found to be larger for poorer countries (**La Porta, Lopez-de-Silanes, and Shleifer 2002**, **Barth, Caprio, and Levine 2001**). Greater state ownership also tends to be anti-competitive, resulting in a larger share of credit going to the largest firms, and it is also associated with a higher likelihood of financial instability and banking crises (**Caprio and Martinez-Peria 2000**, **La Porta, Lopez-de-Silanes, and Shleifer 2002**, **Barth, Caprio, and Levine 2002**). The negative features of state-owned banks have led the **World Bank** (2001, p. 123) to conclude: “Whatever its original objectives, state ownership of banks tends to stunt financial sector development, thereby contributing to slower growth.”

2.4 Underdeveloped Regulatory System to Promote Transparency

Government regulation can promote transparency by increasing the amount of information available in financial markets. Many developing and transition countries, unfortunately, have an underdeveloped regulatory apparatus that retards the provision of adequate information to the marketplace. For example, these countries often have weak accounting standards and disclosure requirements, making it hard to ascertain the quality of a borrower's balance sheet. As a result, asymmetric information problems are more severe, and the financial system is severely hampered in channeling funds to the most productive uses.

The institutional environment of weak property rights, a lack of collateral, government intervention through directed credit programs and state ownership of banks, an inefficient legal system, and weak government regulation to promote transparency all help explain why many countries stay poor while others grow richer.

2.5 Is China a Counter Example?

However, there is one possible counter example to weak institutional environment being an important impediment to economic growth—China. China made great strides in improving property rights using the Household Responsibility System and Township and Village Enterprises after the demise of Mao Zedong in 1976. (The Household Responsibility System enabled local officials to assign land to individual households according to their size so that farmers could develop their land, produce food, and sell it for their own profit, thus giving them the incentive to increase production. Township and Village Enterprises give ownership rights to the local government of the township or village and not to individuals.) Nonetheless, China's property rights, legal system, and transparency are quite weak by advanced country standards. Yet China has had one of the highest growth rates in the world over the last 20 years. How has China been able to be so successful given its weak institutions and a banking sector which is primarily state owned?

It is important to remember that China is still in an early stage of development, with a per capita income in purchasing power parity (PPP) terms that is still only one-eighth that in the United States. [16] With an extremely high savings rate averaging 39% over the last two decades, it has been able to rapidly build up its capital stock and shift a massive pool of underutilized labor in the subsistence agriculture sector into higher productivity activities using capital. Even if the available savings have not been allocated to the most productive uses, the huge increase in capital when combined with the gains in productivity by moving labor out of the subsistence agriculture sector have been enough to produce high growth (**Honohan 2004**).

As China gets richer, however, this strategy will no longer work. [17] The Soviet Union provides a graphic example. In the 1950s and 1960s, the Soviet Union had many similarities to China. It also had very high growth fueled by a high savings rate, a massive buildup of capital, and shifts of a large pool of underutilized labor from subsistence agriculture to manufacturing (**Weitzman 1970**). During this high growth phase, the Soviet Union was unable to develop the institutions to allocate capital efficiently. Once the pool of subsistence laborers was used up, the Soviet Union's growth slowed dramatically and it was unable to keep up with the West. Today no one considers the Soviet Union to have been an economic success story, and its inability to develop the institutions to sustain growth was an important reason for the demise of this former superpower.

Although there are parallels between the former Soviet Union and China, we should be careful not to take them too far. In contrast to the former Soviet Union, China has a vibrant manufacturing export industry and innovative approaches to property rights such as the Household Responsibility System or Township and Village Enterprises. It is far from clear that China will face the same problems that the Soviet Union did. The Soviet Union's experience, however, does suggest that China is not out of the woods yet and that some of the enthusiasm for China's prospects should be tempered.

The Chinese example suggests that in the early stages of development, economic growth can be rapid even in the face of weak institutional development. To reach the next stage of development and eventually enter the rich countries' club, China will require better allocation of its capital, which can only come from improvement in institutions that leads to a financial system which allocates capital to its most productive uses. The Chinese leadership is well aware of this challenge, but whether they will succeed is an open question.

3. WHO CAUSES FINANCIAL REPRESSION?

If the underdevelopment of the financial system, referred to as *financial repression*, is a severe impediment to economic growth and the reduction of poverty, why doesn't every country have its financial house in order and jump on the path to growth and prosperity?

One answer is that it is not easy to build the legal and regulatory institutions that facilitate the flow of information which in turn allows financial markets to function well. The development of these institutions took hundreds of years in the advanced countries of the West. [18]

Although this answer provides part of the story, it is not very satisfactory. Since successful legal and regulatory institutions have already been developed in the advanced countries, why can't a country just borrow them? Indeed, this was what the Japanese did after the Meiji Restoration in the late nineteenth century, and it has also been a feature of the development path in countries in East Asia such as Taiwan, Singapore, and Hong Kong. Technical assistance in establishing these institutions is also available from the developed countries, and from institutions like the World Bank and the IMF.

One explanation is that the benefits of financial development are dispersed over a wide range of the population, while the costs are focused on narrow groups. These groups are usually quite powerful. The benefits of an efficient financial system are spread widely: to the young couple who can now buy a house with the help of a mortgage, to the new car owner who is able to finance its purchase with an automobile loan, to the entrepreneur who can get capital to start her new business, and to the corporation that can finance its investment in a new manufacturing plant. However, on the other side, there is loss from financial development, and thus the powerful groups have incentives to try to impede its progress.

One such group is the government, often the primary source of financial repression. Although strong property rights are a crucial element in financial development, they severely constrain a government's ability to expropriate property and ideas whenever it wants to profit from them. Rapacious governments whose rulers treat their countries as personal fiefdoms are not uncommon: from Sadaam Hussein's Iraq, to Robert Mugabe's Zimbabwe, to Suharto's Indonesia. Government officials, even in more democratic governments, often use the power of the state to get rich. Not surprisingly, then, many governments pay lip service to property rights but do not encourage a rule of law to protect them.

Although state ownership of financial institutions results in a less efficient financial system, it enables politicians and government officials to channel funds, either to their families, their cronies, or business interests that support their political campaigns. They therefore have strong incentives to establish and support state-owned banks. Politicians often couch their support for state-owned banks by saying that these institutions will direct funds where they can do the most public good, but the reality is that they know that state-owned financial institutions enhance both their wealth and their power.

3.1 Repressive Incumbents

As has been emphasized in **Rajan and Zingales (2003b)**, the second group that often supports financial repression are “incumbents,” entrenched special interests who are threatened by free markets. [19,20] , [19,20] Large established business firms often finance new investment projects out of their previous earnings and so do not need funds from external sources in the financial markets. Such firms have less to gain from financial liberalization and development, and frequently have much to

lose. Increased transparency through better accounting standards and disclosure requirements is required to foster financial development because it reduces asymmetric information problems. However, increased transparency may make it harder for incumbent businesses to exploit their connections and conduct business as usual, and so they will often oppose it. Incumbents also are likely to oppose improvements of the legal system that would promote financial development when these improvements would weaken their ability to sway the legal system to their own interests. If judges can be easily influenced, incumbents will be able to get favorable rulings that increase their power and wealth. Financial development also allows capital to flow to entrepreneurs who might be able to compete with the incumbents. Incumbents thus are often perfectly happy to see the financial system remain repressed because this subjects them to less competition.

Incumbents are likely to encourage barriers to setting up legal businesses. These barriers can be prohibitive for all but the very rich in most less-developed countries and can discourage and prevent new businesses from becoming established and perhaps growing to a large scale. Any new and large-scale businesses would eat into the incumbents' monopoly profits. The so-called “license-Raj” in India, which existed until the reforms of Rajiv Gandhi started to dismantle these regulations in the 1980s, is one notorious example. [21] New businesses had to obtain hard-to-get licenses before opening their doors, and incumbents frequently spent more time lobbying government officials to prevent entrepreneurs from setting up competing business than they spent making their businesses more productive.

Incumbent financial institutions have incentives to repress the financial system. [22] Through their connections they may have the ability to collect information not available to the public that enables them to screen good from bad credit risks. Increasing transparency, which reduces asymmetric information and is so necessary to the development of the financial system, may not be in their interest because their best customers may then be able to bypass their services and go to other financial intermediaries or instead use direct finance by issuing their own securities. Incumbent financial institutions also have incentives to discourage development of the legal system to enforce financial contracts fairly because they already have methods of enforcement through their influence over corrupt judges or by outright physical threats. Improving the legal system would then not help them very much but would enable competitors to enter the financial business and take away their customers.

Incumbent financial institutions often discourage effective prudential regulation and supervision over their activities. A government safety net, which insulates these firms from market discipline, enables them to take on risk, with most of the cost borne by taxpayers if their loans go sour. Thus if financial institutions are poorly supervised they can exploit the financial safety net to pursue risky strategies such as rapidly expanding high-risk lending on which they make a lot of money if they bet right and lose only a small amount if they bet wrong. Rigorous prudential regulation and supervision would stop incumbent financial institutions from doing this, so naturally they would oppose it. Indeed, opposition by financial institutions to rigorous prudential regulation and supervision occurs in rich as well as poor countries, but because poor countries have less transparency, this opposition is far more successful in poor countries, with the result that the quality of prudential regulation and supervision is typically very low.

4. CAN GLOBALIZATION ENCOURAGE FINANCIAL DEVELOPMENT?

How can the obstacles to financial development posed by politicians and incumbents that support financial repression be overcome? One solution, advocated by **Rajan and Zingales (2003b)** and **World Bank (2001)**, is globalization, the opening up of domestic markets to foreign goods and direct investment, as well as to foreign capital and foreign financial institutions. Globalization, particularly financial globalization, can encourage financial development indirectly by decreasing the incentives for financial repression outlined above. We will consider these first, but as we shall see, financial globalization has direct benefits, too.

4.1 Indirect Benefits

Allowing entry of foreign goods and investment produces a more competitive environment that will drive down revenue of incumbent firms and reduce their cash flow (revenue minus outlays) so that they will have to seek out external sources of finance. Because these sources of finance will only be available if the financial system has the wherewithal to solve asymmetric information problems, incumbent firms will now be more likely to support the necessary institutional reforms to make the financial system work better. In turn, the increase in the size of the financial sector will foster economic growth. [23] Greater openness to trade is indeed found to be linked to a larger financial sector (**Rajan and Zingales 2003b**, **Svalaeryd and Vlachos 2002**), and the increased competition from foreigners stimulates domestic firms to become more productive in order to survive.

Financial globalization, opening up to foreign capital and foreign financial institutions, is a particularly strong force for institutional reform that promotes financial development as long as it is extensive enough so that the entry of foreign capital and foreign institutions increases competition in domestic financial markets. When domestic businesses can borrow from abroad or from foreign financial institutions that establish affiliates in the less-developed country, domestic financial institutions will start to lose many of their old customers. In order for the domestic financial institutions to stay in business they will have to seek out new customers and lend to them profitably. And to accomplish this, they will need to have the information to screen out good from bad credit risks and monitor borrowers to make sure they do not take on excessive risk. Domestic financial institutions will thus find that they need to encourage institutional reforms, such as better accounting standards and disclosure requirements, which will make it easier for them to acquire the information that they need to make profitable loans. Domestic financial institutions will see the need to improve the legal system so they can enforce restrictive covenants or be able to take title to collateral if a borrower defaults. With globalization, domestic financial institutions will support legal reform because it will not only help them make profits but will also strengthen property rights that directly encourage investment directly.

4.2 Direct of Benefits of Financial Globalization

Entry of foreign financial institutions into domestic markets plays a direct role in promoting financial development. When foreign financial institutions enter a country, domestic financial institutions have to become more efficient in order to survive, and this is exactly what happens (e.g., see **Levine 1996**, **Claessens and Jansen 2000**, **Claessens, Demiriguc-Kunt, and Huizinga 2000, 2001**, **Barajas, Steiner, and Salazar 2000**, **Clarke et al. 2000**, and **Unite and Sullivan 2003**). Foreign financial institutions bring to domestic financial markets best practices, that is, expertise that has been learned from their past experience, and are likely to promote technology transfer to domestic financial institutions (**Goldberg 2004**). Entry of foreign financial institutions helps improve domestic prudential supervision because supervisors are now able to see what risk management practices are successfully used in foreign institutions and insist that they be adopted by domestic institutions (**Mishkin 2003**). Foreign financial

institutions also act as a constituency for institutional reform aimed at improving the quality of information in financial markets because, as outsiders, they do not have access to the same inside information that domestic institutions do.

Financial globalization has additional direct benefits for domestic financial markets. Allowing foreign capital to enter domestic financial markets increases the availability of funds and thus should necessarily increase liquidity and lower the cost of capital, which stimulates investment and economic growth. [24] This is indeed what happened when countries have opened up their stock markets to foreign capital: **Henry (2003)** finds that on average dividend yields fall by 2.4 percentage points, the growth rate of investment increases by 1.1 percentage points, and the growth rate of output per worker increases by 2.3 percentage points. [25]

5. WHY FINANCIAL GLOBALIZATION DOESN'T ALWAYS WORK: FINANCIAL CRISES

Given the benefits of financial globalization discussed so far, it seems as though opening up domestic financial markets to international capital should have an unambiguously positive impact on economic growth. However, evidence using aggregate data on the benefits of financial globalization is mixed: there is no clear-cut relationship between international financial openness and economic growth. [26]

Why doesn't opening up financial markets always work? The answer is that opening up an economy to international capital flows, particularly if it is not managed properly, can lead to financial crises that are disastrous to the economy. [27] This is why financial globalization is so controversial.

The geneses of all financial crises are found in the good times that precede the collapse. During the early phases of the globalization process, the economic performance of emerging market countries is quite good: economic growth is high and inflation has come down to low levels, particularly by the standards of past history in these countries. But the good times often have a dark side. There are two basic routes through which emerging market countries can find themselves in a crisis: a financial liberalization/globalization process gone wrong or a severe fiscal imbalance. We focus first on the a financial liberalization/globalization process gone wrong because it is the most common culprit behind financial crises and this is what precipitated the crises in Mexico in 1994 and many East Asian countries in 1997. [28]

5.1 Stage One: Mismanagement of Financial Liberalization/Globalization

The seeds of a “globalization-gone-wrong” financial crisis are sown several years before the crisis hits when countries liberalize their financial systems by lifting the regulations that restrict domestic banking institutions from lending their funds at market rates and borrowing funds from abroad. To be more precise about what financial liberalization entails, it can be separated into two components: *Internal financial liberalization* involves lifting regulations that restrict domestic financial institutions from lending their funds at market rates or that set quantitative limits on the amount of credit domestic financial institutions can allocate to particular uses. *External financial liberalization*, more commonly referred to as *capital account liberalization* or *financial globalization* occurs when domestic financial markets are opened to flows of foreign capital and foreign financial institutions. Internal and external financial liberalization usually go together and are often referred to as financial liberalization/globalization, but they don't have to. A country could free up its domestic financial markets, but still keep them closed off from the outside world.

Indeed, 18 of 26 crises in the last 20 years occurred after the financial sector was liberalized in the preceding 5 years, [29] and countries that have been hit with this type of crisis often start out with solid fiscal policy: in the years before their crises hit, the countries in East Asia were running budget surpluses, and Mexico was running a budget deficit of only 0.7% of GDP, a number that most advanced countries would be thrilled to have. [30]

Although the process of financial globalization has the potential to be highly beneficial, it often leads to excessive risk taking by banks. With restrictions lifted, banks now have the ability to greatly expand their lending activities, while with a government safety net, the market has little incentive to discipline the banks by denying the banks funds if the banks are taking on excessive risk. The result is that banks go on a lending spree and expand their lending by 15–30% per year, which is more than double the typical lending growth rate. [31] Not only do banks increase their lending, they give out more loans to firms in industries of which they have little knowledge. Because the managers of the banking institutions in these emerging market countries typically do not have the required expertise to manage risk appropriately in these new lines of business and are unable to cope with the rapid growth of lending that typically follows a financial liberalization, problems are bound to arise. Even if the required managerial expertise were available initially, the rapid lending growth would likely outstrip the information resources available to banking institutions. Increased lending to industries about which banks know little results in excessive risk taking on the bank's part.

The moral hazard incentives to take on excessive risk arising from the government safety net are even more likely to be the source of bad loans than lack of expertise of bank managers. [32] Even in countries with well-developed banking sectors, financial liberalization has often led to lending booms and banking crises, as the experience in the 1980s and 1990s in Japan and the United States suggest.

Because of lack of expertise in screening and monitoring borrowers and moral hazard incentives to take on excessive risk, losses on the loans begin to mount. These losses mean that the balance sheets of banks deteriorate because the drop in the value of their loans (on the assets side of the balance sheet) falls relative to the banks' liabilities, thereby driving down the net worth (capital) of the bank. With less capital, banks become riskier and so depositors and other potential lenders to the banks are less willing to supply banks with funds. Fewer funds then mean fewer loans and lending. The lending boom will turn into a lending crash.

Banks play a crucial role in financial markets because they are well suited to collect information about businesses and industries. This ability, in turn, enables banks to distinguish good loan prospects from bad ones. When banks cut back on their lending, no one else can step in to collect this information and make these loans, so the ability of the financial system to cope with the asymmetric information problems of moral hazard and adverse selection is severely hampered. As loans become scarcer, firms are no longer able to fund their attractive investment opportunities; they decrease their spending and economic activity contracts.

If the deterioration in bank balance sheets is severe enough, a bank panic may ensue in which there are multiple, simultaneous failures of banking institutions. There is some possibility that one bank failure can cause another to fail and so on. Such contagion can cause even healthy banks to fail. The failure and subsequent closing of a large number of banks in a short period of time means that there is further loss of information collection in financial markets and a direct loss of financial intermediation done by the banking sector. The ultimate outcome of the bank panic is an even greater

worsening of asymmetric information problems, a sharper decline in lending to facilitate productive investments, and a resulting sharp contraction in economic activity. [33]

The solution to preventing a lending boom and bust is prudential regulation and supervision of the banking system to prevent banks from taking on excessive risk. However, financial liberalization is often undertaken with completely inadequate prudential regulation and supervision. (In contrast to the East Asian countries that suffered crises, for example, Singapore, Hong Kong, and Taiwan all had strong prudential regulatory and supervisory systems and did not suffer crises from financial globalization.)

Not only do the new lines of business and rapid credit growth stretch the managerial resources of banks, they also similarly stretch the resources of the government's bank supervisors. After a financial liberalization, bank supervisors frequently find themselves without the expertise or the additional resources needed to appropriately monitor the banks' new lending activities. Without this monitoring, excessive risk taking by banks cannot be prevented.

The balance sheet/net worth deterioration can get even worse if regulators and supervisors practice *regulatory forbearance*; that is, they knowingly allow financial institutions that are broke to continue to operate. Regulatory forbearance is very common in advanced and emerging market economies and it dramatically increases moral hazard problems because it creates incentives for banks to take on even more risk because they have almost nothing to lose. [34] If they get lucky and their risky loans pay off, they become solvent again. If, as is likely, the risky loans don't pay off, the banks' losses will mount, further weakening the financial system.

5.2 Adding Fuel to the Fire: Opening Up to Foreign Capital

The financial globalization process that allows domestic banks to borrow abroad also adds fuel to the fire. The banks pay high interest rates to attract foreign capital so they can rapidly increase their lending, while foreign deposits that fund the bank's lending activities are viewed as likely to be protected by a government safety net (either from the government of the emerging market country or from international agencies such as the IMF). Given that losses on deposits at failed banks are likely to be limited as indeed occurred in South Korea, foreign capital flows into the domestic banks. The capital inflow is further stimulated by government policies that keep exchange rates pegged to the dollar, which probably gave foreign investors a sense of lower risk.

Capital inflows were very high across Mexico and East Asia, averaging from 5% to 14% of GDP in the 3 years leading up to the crisis and were an important factor leading to the expansion of bank lending, especially in the Asian-Pacific region (**Folkerts-Landau et al. 1995**). The capital inflows fueled the lending boom which led to excessive risk taking on the part of banks, which in turn led to huge loan losses and a subsequent deterioration of balance sheets in banks and other financial institutions.

5.3 Perversion of the Financial Liberalization/Globalization Process

The story that we have told so far suggests that a lending boom and crash are inevitable outcomes of financial globalization, but this is not the case. They only occur when there is an institutional weakness that prevents a country from successfully handling the globalization process. More specifically, if prudential regulation and supervision to limit excessive risk-taking were strong, the lending boom and bust would not happen. Why is the financial liberalization in some emerging market countries undertaken with prudential regulatory and supervisory structures that are completely inadequate?

Why are more resources not devoted to prudential supervision when it is clear that the rapid growth in bank lending requires it?

The answer is that the principal-agent problem encourages powerful domestic business interests to pervert the financial globalization process. Politicians and prudential supervisors are ultimately agents for voters-taxpayers (principals), implying a goal of protecting the taxpayers' interest because taxpayers bear the cost of any losses if the banking sector eventually must get bailed out. To act in the taxpayer's interest, prudential regulators and supervisors have several tasks: they set restrictions on holding assets that are too risky, impose sufficiently high capital requirements, and close down insolvent institutions (not engage in regulatory forbearance).

Powerful business interests that own banks will want to prevent the supervisors from doing their job properly. After all, if they can grow the bank rapidly, they stand to make a fortune, but if the bank gets in trouble, it is likely to get bailed out and the taxpayer foots the bill. Because powerful business interests contribute heavily to politicians' campaigns, they are often able to persuade politicians to weaken regulations that restrict their banks from engaging in high-risk/high-payoff strategies. In addition, these business interests can also make sure that the supervisory agencies are starved for resources, so that even in the presence of tough regulations, the supervisory agency does not have the capability to effectively monitor banking institutions or to close them down.

A particularly graphic example of how powerful business interests perverted the financial liberalization/globalization process occurred in South Korea (**Hahm and Mishkin 2000**). Because of the chaebols' (the large conglomerates that dominate the Korean economy) massive size—sales of the top five chaebols were nearly 50% of GDP [35] —the chaebols were politically powerful and exerted great influence over the ruling party. In the 1990s, the chaebols were in trouble: from 1993 to 1996, the return on assets for the top 30 chaebols was never much more than 3% (a comparable figure for U.S. corporations is 15–20%.) Indeed, in 1996 right before the crisis hit, the rate of return on assets had fallen to 0.2%. Furthermore, it was only the top five chaebols that had any profits: the 6th to 30th chaebols never had a rate of return on assets much above 1% and in many years had negative rates of returns. With this kind of profitability and the already high leverage, any banker in his right mind would pull back on lending to these conglomerates if there was no government safety net. But because the banks knew the government would make good on the chaebols' loans if they were to default, the opposite occurred: banks continued to lend to the chaebols, evergreened their loans, and in effect, threw good money after bad, knowing that the government would throw money at the chaebols to enable them to pay off their creditors if the chaebols got into trouble. [36]

Even though the chaebols were getting substantial financing from commercial banks, it was not enough to feed their insatiable appetite for more credit. The chaebols decided that the way out of their troubles was to go for growth, and they needed massive amounts of funds to do it. Even with the vaunted Korean savings rates of over 30%, there just were not enough loanable funds to finance the chaebols' planned expansion. Where could they get it? The answer was in the international capital markets.

To enable them to get the cash they needed to grow, the chaebols encouraged the government to accelerate the process of opening up Korean financial markets to foreign capital as part of the liberalization process. In 1993, the Korean government expanded the ability of domestic banks to make loans denominated in foreign currency by expanding the types of loans for which this was possible. At the same time, the Korean government effectively allowed unlimited short-term foreign

borrowing by financial institutions but maintained quantity restrictions on long-term borrowing as a means of managing capital flows into the country. Opening up short term but not long term to foreign capital flows made no economic sense because it is *short-term* capital flows that make an emerging market economy financially fragile: short-term capital can fly out of the country extremely rapidly if there is any whiff of a crisis. This policy did, however, make complete political sense because the chaebols needed the money and it is much easier to borrow short-term funds at lower interest rates in the international market because long-term lending is much riskier for foreign creditors. Keeping restrictions on long-term international borrowing, however, allowed the government to say that they were still engaged in restricting foreign capital inflows and so could claim that they were opening up to foreign capital in a prudent manner. In the aftermath of these changes, Korean banks opened 28 branches in foreign countries which gave them access to foreign funds.

Although Korean financial institutions now had access to foreign capital, the chaebols still had a problem. The Bank of Korea, which was the regulator of the commercial banks and was somewhat independent of the government, did not allow chaebols to own commercial banks and so the chaebols might not get all of the bank loans that they needed. What was the answer? The chaebols needed to get their hands on financial institutions that they could own, that were allowed to borrow abroad, and that were subject to very little regulation. This way the financial institution could borrow foreign funds and then lend them to the chaebols who owned the institution; that is, it could engage in connected lending.

There was a type of existing financial institution in Korea that perfectly met the chaebols requirements: institutions that are called merchant banks. Merchant banking corporations are wholesale financial institutions which engaged in underwriting securities, leasing, and short-term lending to the corporate sector. They obtained funds for these loans by issuing bonds and commercial paper and by borrowing from inter-bank and foreign markets. Merchant banks were not only allowed to borrow abroad, but they were almost virtually unregulated. The chaebols got the government to allow many finance companies (some already owned by the chaebols), which were not allowed to borrow abroad, to be converted into merchant banks, which could. In 1990 there were only six merchant banks and all of them were foreign affiliated—by 1997 after the chaebols had worked their political magic, there were 30 merchant banks, 16 of which were owned by chaebols, 2 of which were foreign owned but in which chaebols were major stock holders, and 12 of which were independent of the chaebols but Korean owned (**Hahm 2003**).

5.4 Stage One: Severe Fiscal Imbalances

The second route through which emerging market countries end up experiencing a financial crisis is through government fiscal imbalances which entail substantial budget deficits that need to be financed. The recent financial recent financial crisis in Argentina in 2001–02 is of this type, but other recent crises, for example, in Russia in 1998, Ecuador in 1999, and Turkey in 2001, also have some elements of this type of crisis. [37]

In contrast to Mexico and the East Asian crisis countries, Argentina had a well-supervised banking system and a lending boom did not occur before the crisis. Thus, the banks were in surprisingly good shape before the crisis, despite the fact that a severe recession had begun in 1998. It was this recession, however, that led to tax revenue falling well below the revenue collected from taxes, leading to severe fiscal imbalances that were so large that the government now had trouble getting

both domestic residents and foreigners to buy enough of its bonds. It then had to look for other sources to finance its deficits.

When governments face large fiscal imbalances and cannot finance their debt, they often cajole or force banks to purchase government debt. This is exactly what the Argentine government did in the run-up to its financial crisis in 2001. When investors lose confidence in the ability of the government to repay this debt, they unload the bonds, which causes their prices to plummet. Now the banks that are holding this debt have a big hole on the asset side of their balance sheets, with a huge decline in their net worth. The deterioration in bank balance sheets then causes a decline in bank lending and can even lead to a bank panic, and this is exactly what happened in Argentina. Severe fiscal imbalances hence spill over into weakening of the banking system which leads to a worsening of adverse selection and moral hazard problems, which, in turn, causes an economic contraction.

5.5 Stage Two: Run-up to the Currency Crisis

The deterioration in bank balance sheets that results from mishandled financial liberalization that occurs with globalization or from large fiscal imbalances sets the stage for a full-scale financial crisis because it increases adverse selection and moral hazard in financial markets well before the crisis starts, but other factors also come into play shortly before the crisis hits.

Higher interest rates and their effects on cash flow Another precipitating factor in the some crises (e.g., the Mexican but not East Asian crises) is a rise in interest rates that comes not from domestic sources but rather from events abroad such as a tightening of U.S. monetary policy. When interest rates rise, firms that are good credit risks (because they are likely to be making more conservative investments) cannot make enough to cover the very high interest payments. While good risks may stop seeking out loans, the poorer risks are all too eager to ask for money. For example, firms with speculative investments, like building mammoth skyscrapers, are more than happy to continue to take on loans, because if they get lucky, they will have more than enough to pay the high interest rate and still have a big profit. [38] Banks and other lenders, on the other hand, will now be leery of making loans because more of the firms seeking loans are likely to be bad credit risks. Therefore, when there is an increase in interest rates, there is now more adverse selection in financial markets and lenders will want to make fewer loans. A sharp upward spike in interest rates, can then lead to a steep decline in the supply of loans which, in turn, will lead to a substantial decline in investment and aggregate economic activity. [39]

If a firm is borrowing, a rise in interest rates also leads to higher interest payments and therefore a decline in a firm's cash flow, the difference between its cash receipts and cash it must pay out to cover its costs, including its borrowing. With plenty of cash flow, a firm can finance its projects internally, and there is no asymmetric information because it knows how good its projects are. With less cash flow, the firm has fewer internal funds and has to get funds from someplace else, say a bank, which does not know the firm as well as its owners or managers do. The bank will not be sure if the firm has good safe projects or whether it might take on big risks and then be unlikely to pay the loan back. The outcome is that lower cash flow for healthy, low-risk firms increases both adverse selection (only poor risks will be actively seeking loans) and moral hazard (once even a healthy firm gets the loan it is more likely to take on higher risk, higher return projects because it will not bear the full costs if the projects turn out badly). Because of increased adverse selection and moral hazard, then, the bank may not lend the good risk the money to undertake the investment even though it would have been profitable for both the firm and the bank. When cash flow drops as a result of an increase in interest rates,

adverse selection and moral hazard problems become more severe, again curtailing lending and investment. [40]

Increases in uncertainty and the decline in lending When a prominent firm fails, when the economy is in a recession, or when the political system is in disarray, people become more uncertain about the returns on investment projects. When uncertainty increases, as in Mexico in 1994 when Luis Donaldo Colosio, the ruling party's presidential candidate, was assassinated and there was an uprising in the southern state of Chiapas, or as in Thailand and Korea when there were failures of major financial and non-financial firms just before their crises, it becomes harder for lenders to screen out good from bad credit risks and to monitor the activities of firms they have loaned money to. They become less willing to lend, and as lending declines, investment, and then aggregate economic activity decline as well.

Declining asset prices and the decline in net worth A decline in asset prices, whether stocks, real estate, or something else will cause firms' net worth to decline. When the stock market crashes, for example, firms' share prices decline. Since share prices reflect the valuation of a corporation's shares, a market crash means that the net worth of most corporations has fallen. Since net worth plays a similar role to collateral when a firm is seeking a loan, a lower net worth tells lenders that a firm's value will provide less protection if the firm's investments go sour. Because lenders are now less protected against the consequences of adverse selection, they decrease their lending not only to risky firms but also to healthy, conservative firms whose net worth has declined. As a result, investment and, in turn, aggregate output decline. [41]

In addition, because corporate net worth has declined, risky firms have less to lose and thus may take out riskier investments. The resulting increase in moral hazard gives lenders another reason not to lend. This is another path by which a collapse in asset prices leads to decreased lending and economic activity. [42]

High interest rates, increases in uncertainty, and stock market crashes did occur shortly before and contributed to full-blown crises in Mexico, Thailand, South Korea, and Argentina. (The stock market crashes in Malaysia, Indonesia, and the Philippines occurred simultaneously with the onset of the crisis.) All these factors increased asymmetric information problems; they made it harder for lenders to distinguish bad borrowers from good ones and increased the incentives for borrowers to make risky investments because they had less to lose given the decline in their net worth if their investments were unsuccessful. High interest rates, increases in uncertainty and stock market declines, along with the deterioration in banks' balance sheets, worsen adverse selection and moral hazard problems and made these economies ripe for a serious financial crisis.

5.6 Stage Three: Currency Crisis

As the effects of any or all of the factors build on each other, participants in the foreign exchange market start to smell large profit opportunities. Currencies in these countries that are fixed against the U.S. dollar now become subject to a speculative attack as speculators engage in massive sales of these currencies. As the sale of these currencies flood the market, the value of these currencies collapses, and a currency crisis ensues. Although high interest rates abroad, increases in uncertainty and asset price declines play a role, the two key factors that trigger the speculative attacks and plunge the economies into a full-scale, vicious circle of currency crisis, financial crisis, and meltdown are the deterioration in bank balance sheets or severe fiscal imbalances.

When banks and other financial institutions are in trouble, it is not as easy for governments to raise interest rates to encourage capital inflows in order to defend their currencies. If the government raises interest rates, banks must pay more to obtain funds. This increase in costs decreases bank profitability which may lead them to insolvency. Thus when the banking system is in trouble, the government and the central bank are now between a rock and a hard place: if they raise interest rates too much they will destroy their already weakened banks, and if they don't, they can't maintain the value of their currency.

Once the speculators in the market for foreign currency recognize the troubles in a country's financial sector and realize that the government's ability to defend the currency is limited, they know that they are presented with an almost sure bet because the currency only can decline in value. Speculators engage in a feeding frenzy of selling the currency. These sales rapidly use up the country's holdings of reserves of foreign currency because it has to sell these to buy the domestic currency to keep it from falling in value. Once the government (central bank) has exhausted its holdings of foreign currency reserves, it no longer has the resources to intervene in the foreign exchange market and must let the value of the domestic currency fall; that is, the government must allow a devaluation.

In December 1994, even though the Mexican central bank intervened in the foreign exchange market and raised interest rates sharply, it was unable to stem the speculators' attack and was forced to devalue the peso on December 20, 1994. In Thailand, three events culminated in a successful speculative attack that forced the Thai central bank to allow the baht to float downward in July 1997: concerns about the country's large current account deficit, concerns about weakness in its financial sector, and the failure of a major finance company, Finance One. Soon after the baht's devaluation, speculative attacks developed against the other countries in the region, leading to the collapse of the Philippine peso, the Indonesian rupiah, the Malaysian ringgit, and the South Korean won.

We have seen that severe fiscal imbalances, as in Argentina, can also lead to a deterioration of bank balance sheets and so can help produce a currency crisis along the lines described above. However, fiscal imbalances can trigger a currency crisis more directly.[43] When government budget deficits spin out of control, investors (both foreign and domestic) begin to suspect that the country may not be able to pay back its government debt and so will start pulling money out of the country, selling the domestic currency. Recognition that the fiscal situation is out of control thus results in a speculative attack against the currency, which eventually results in its collapse, as occurred in Argentina on January 6, 2002.

Most currency and financial crises are initiated by poor fundamentals: weak supervision and regulation of the banking system or large fiscal imbalances. However, asset prices such as stock prices and exchange rates have huge swings that are often hard to explain. Speculative attacks on currencies that set off a currency crisis can occur spontaneously even for the best run economies. Speculative bubbles in the real estate and stock markets also appear often, and when they burst, they too can lead to financial instability. Strong fundamentals, therefore, do not completely insulate an economy from financial crises. Poorly managed economies, nevertheless, are especially vulnerable to currency and financial crises.

5.7 Final Stage: Currency Crisis Triggers a Full-Fledged Financial Crisis

A key characteristic that distinguishes emerging market economies from advanced economies is the structure of their debt markets. In advanced economies inflation has tended to be moderate and so

debt contracts are typically of fairly long duration with fixed interest rates. Around half of residential mortgages in the United States, for instance, have fixed rates and come due in around 30 years time, and corporate bonds with maturities of 30 years or longer are common.

In contrast, emerging market countries have experienced very high and variable inflation rates in the past, with accompanying wide swings in the value of the domestic currency. One result of their experience is that debt contracts are of very short duration in order to minimize the inflation risk. In many emerging market countries, for example, almost all bank lending is very short term with variable rate contracts that are adjusted on a monthly, or sometimes daily, basis. In addition, because of the likelihood that their currency's value will change for the worse, many non-financial firms, banks, and governments in emerging market countries find it much easier to issue debt denominated in foreign currencies, often U.S. dollars, a phenomenon called *liability dollarization*. [44]

When debt contracts are denominated in foreign currency (dollars), an unanticipated depreciation or devaluation of the domestic currency (pesos) causes the debt burden of domestic firms to increase in terms of domestic currency because it takes more pesos to pay the dollarized debt back. Since the goods and services produced by most firms are priced in the domestic currency, the firms' assets do not rise in value in terms of pesos, while the debt does. The depreciation of the domestic currency increases the value of debt relative to assets, and the firm's net worth declines. The decline in net worth then increases adverse selection and moral hazard problems described earlier which, leads in turn, to a decline in investment and economic activity.

To see how this works, consider what happened in 1997 when Indonesia experienced its currency crisis in 1997 and experienced a 75% depreciation of its currency, the rupiah. Debt that was denominated in dollars now became four times as expensive in terms of rupiah. In this situation, almost every Indonesian firm with a substantial amount of dollar debt was insolvent. The moral hazard and adverse selection problems of lending to an insolvent firm were so severe that even if an Indonesian firm in this situation initially had a good balance sheet, was run well, and had superb investment opportunities, no one would lend to it. Investment and spending collapsed as did the entire economy.

For firms that export most of their production (generally priced in foreign currency), the impact of a depreciation on the balance sheet is far less severe. The depreciation leads to a rise in the prices of the goods and services the exporter produces, thereby raising the value of its assets in terms of the domestic currency. The increase in asset values helps to offset the rise in the value of the exporter's debt. This outcome suggests that the larger is the export sector in an emerging market economy, the less severe are the consequences of a currency collapse on balance sheets and the overall economy, and this is what empirical evidence finds. [45]

We now see how the institutional structure of debt markets in emerging market countries interacts with the currency devaluations to propel the economies into full-fledged financial crises, producing what has been referred to by economists as “twin crises” (**Kaminsky and Reihnart 1999**), that is, a concurrent currency and financial crisis. Because so many firms in these emerging market countries had debt denominated in foreign currency like the dollar and the yen, depreciation of their currencies resulted in increases in their indebtedness in domestic currency terms, even though the value of their assets remained unchanged. When the Mexican peso lost half its value by March 1995, and the Thai, Philippine, Malaysian, and South Korean currencies lost 30–50% of their value by the beginning of 1998, firms' balance sheets took a big negative hit, causing a dramatic increase in adverse selection

and moral hazard problems. This negative shock was especially severe for Indonesia, as we have seen, which saw its currency fall by over 75%, resulting in insolvency for almost all firms with substantial amounts of debt denominated in foreign currencies.

If an economy is almost completely dollarized—that is, if most of its debts are denominated in dollars, as the Argentine economy was [46] —the currency collapse is truly devastating because the destruction of balance sheets is so total. In the aftermath of its crisis, Argentina entered the worst depression in its history from 2001 to 2002, with the unemployment rate climbing to nearly 20%, a level comparable to what we in the United States experienced during the Great Depression of the 1930s.

The collapse of a currency also can lead to higher inflation. The central banks in most emerging market countries have little credibility as inflation fighters. Thus, a sharp depreciation of the currency after a currency crisis leads to immediate upward pressure on import prices, which is likely to lead to a dramatic rise in both actual and expected inflation. This happened in Mexico and Indonesia, where inflation surged to over a 50% annual rate after the currency crisis. The rise in expected inflation after the currency crises in Mexico and Indonesia led to a sharp rise in interest rates which now had to compensate for inflation risk. The resulting increase in interest payments caused reductions in firms' cash flow, which led to increased asymmetric information problems since firms were now more dependent on external funds to finance their investment. The resulting increase in adverse selection and moral hazard problems made domestic and foreign lenders even less willing to lend.

Further deterioration in the economy occurred because the collapse in economic activity, the deterioration of cash flow and balance sheets of firms and households, meant that many of them were no longer able to pay off their debts, resulting in substantial losses for banks. Sharp rises in interest rates also had a negative effect on banks' profitability and balance sheets. Even more problematic for the banks was that the value of their foreign-currency-denominated liabilities increased sharply after the devaluation. Thus, bank balance sheets were squeezed from both the assets and liabilities side—the value of their assets was falling as the value of their liabilities was rising. [47] Moreover, many of the banks' foreign-currency-denominated debt was very short term, so that the sharp increase in the value of the debt led to immediate problems for the banks because this debt needed to be paid back quickly.

Under these circumstances, the banking system will suffer a bank panic and collapse in the absence of a government safety net. In many cases, however, the IMF will help emerging market nations protect depositors and avoid a bank panic. (Indonesia, on the other hand, did experience a banking panic in which numerous banks were forced out of business.) However, given the loss of bank capital and the need for the government to intervene to prop up the banks, even with the IMF's help, banks' ability to lend is sharply curtailed. A banking crisis that does not develop into a banking panic still hinders the ability of the banks to lend and worsens adverse selection and moral hazard problems in financial markets because banks are less capable of playing their financial intermediation role. The banking crisis and the other factors that increase adverse selection and moral hazard problems in the credit markets explain the collapse of lending and economic activity in the aftermath of the crisis.

5.8 Contagion

So far, we have been looking at shocks to the financial system that come from actions or events inside an individual emerging market economy, but not all financial crises are homegrown; there can be contagion in which a currency or financial crisis in one country can spread to another. Research on

crisis contagion suggests that it is particularly virulent after there has been a large surge of capital flows which come to a "sudden stop" [48] ; the crisis in the initiating country came as a surprise; and there is a highly leveraged common creditor, like banks, mutual funds, or hedge funds, who have been lending to the countries that experience contagion. [49] The 1997 East Asian financial crisis, for example, began in Thailand, with the devaluation of the Thai baht in July. Once participants in the financial markets recognized that something was rotten in the financial sector in Thailand, they realized that the rest of East Asia might be in a similarly precarious financial state. Speculative attacks then began against the currencies in other countries of the region. As it became clear that South Korea, Malaysia, the Philippines, and Indonesia had also experienced lending booms that weakened their banking systems, the selling pressure became so great that their currencies collapsed as well. Although the speculative pressure on these other currencies might have been triggered by the successful speculative attack on the Thai baht, the reason that the speculative attacks were successful against these other currencies was that they had similar problems in their domestic banking sectors. Speculators also began to sell the currencies of Singapore, Hong Kong, and Taiwan, but these countries were able to survive the attacks because strong prudential regulation and supervision had kept their banking systems in good shape. Their governments were able to successfully defend their currencies and keep them from devaluing, and financial crises did not occur. The East Asian financial crises, then, were primarily home grown, although the exact timing was probably influenced by contagion from Thailand.

6. CONCLUSION

Financial globalization can play an important role in encouraging development of institutions so that financial markets can effectively perform the crucial function of getting capital to its most productive uses, which is the key to generating growth and reducing poverty. However, as we have seen, although financial globalization can be a strong force for good, it can also go very wrong if a country does not manage the process properly. [50] The increased likelihood that countries will experience financial crises when they open up their financial markets to foreign capital explains why there is no clear-cut relationship between financial globalization and economic growth. Botched financial globalization also poses a danger because it may create a backlash against globalization. We have seen this backlash particularly in countries such as Argentina where support for globalization has become particularly weak after their financial crisis. [51]

Bad policies are the reason that financial development does not occur and why financial globalization often leads to harmful financial crises. Instead of rejecting financial globalization, we can greatly improve the environment for economic growth if we develop policies that promote successful financial development and financial globalization. The analysis in this lecture provides important clues as to how this might be done. However, getting good policies is by no means straightforward and discussing them would have to be the subject of another lecture. [52]

Footnotes

1 The international trade data are from **Taylor (2002)** while the GDP data are from **Maddison (2001)**. The capital flow data are from **Obstfeld and Taylor (2002)**.

2 As we will see the main reason why capital doesn't flow from rich to poor countries is because of the weaker institutional environment in poor countries. Empirical evidence supports this view (**Alfaro, Kalemli-Ozcan, and Volosovych 2003, 2004**).

3 The figure is the percent of gross capital formation supplied by foreigners for 2002 from the **World Bank (2004)**.

4 For example, in Kearl et al. (1979), 97% of economists agreed (generally or with some provisions) with the statement that "tariffs and import quotas reduce general economic welfare."
5 An exception to popular books which criticize financial globalization is Martin Wolf's superb book (Wolf 2004). Also see Calomiris (2002).
6 An excellent non-technical survey of the extensive empirical evidence on this topic can be found in World Bank (2001). See also Levine (2004) and Schmukler (2004). For a recent paper that also finds that financial deepening is crucial to economic growth for developing countries, see Aghion, Howitt, and Mayer-Foulkes (2005).
7 In some research, financial deepening is characterized as an expansion of the financial sector. Here I am using the term financial deepening more generally to refer to financial development which includes not only an expansion in the financial sector but an improvement in its institutions so that it can allocate capital to its more productive uses more efficiently. Abiad, Oomes, and Ueda (2005) find that financial liberalization, which improves the institutional framework of the financial sector, does lead to higher economic growth and is far more important to economic growth than just expansion of the financial sector.
8 One concern with this result is that high economic growth before 1960 could have led to high financial development and to further high economic growth, so that causality might not run from financial development to growth. To rule this out, later papers have used instrumental variables techniques in which the origin of the legal system (English, French, German, or Scandinavian), which was determined typically hundreds of years ago, well before recent growth, is used as an instrument for financial development at the beginning of the period. The result is the same: economic growth is positively related to financial development. For example, see Levine, Loayza, and Beck (2000), Levine and Zervos (1998a, 1998b), and Beck, Levine, and Loayza (2000).
9 And this is particularly true in industries that depend more on external finance. See Rajan and Zingales (1998).
10 Case studies such as Jeong and Townsend (2005) also support the importance of financial deepening to economic growth (Honohan 2004, p.2).
11 The World Bank in its annual publication *Doing Business in 2005* (World Bank 2005) updates De Soto's numbers on the time and cost of registering property using a somewhat different methodology. The World Bank's numbers are substantially lower than that of De Soto, but they still show that the cost of registering property in poor countries is much longer than in rich countries and at a much higher cost.
12 One notorious example was how the Belgian Congo was run under King Leopold of Belgium as is discussed in Acemoglu, Johnson, and Robinson (2001) and Jewsiewicki (1983). Belgian policy in the Congo was so exploitive and ruthless that it led to an international protest movement in the early twentieth century.
13 Albouy (2005) questions the strength of Acemoglu, Johnson, and Robinson's results on methodological grounds, arguing that the settler mortality data used by them are flawed. However, other papers, using very different methodological approaches which do not make use of settler mortality data do support Acemoglu, Johnson, and Robinson's conclusion that institutional development is a key driving factor behind economic development. For example, see Easterly and Levine (2003), Rodrik, Subramanian, and Trebbi (2002), and Glaeser et al. (2004).
14 In addition, when legal systems were transplanted to a country with an unreceptive environment, they also do not seem to work very well (Berkowitz, Pastor, and Richard 2000).
15 Inter-American Development Bank (2005, Chapter 10) finds that state-owned banks are less efficient, have higher non-performing loans, higher overhead, and lower returns than private sector banks.
16 In PPP adjusted terms, per capita GDP in China was 13% of that in the United States (World Bank 2004).
17 Boyreau-Debray and Wei (2004) show that the state-dominated financial system in China has favored inefficient state firms, has resulted in low capital mobility across regions, and has allocated capital away from more productive regions toward the less productive ones.
18 See Chapter 6, "The Taming of the Government" in Rajan and Zingales (2002, pp. 129–156), for a description of this process in England.
19 The history of Latin America illustrates many examples of incumbent encouragement of financial repression. For example, see Haber (1997, 2004).
20 The Rajan and Zingales (2003b) view is backed up by a substantial body of research. The survey by Morck, Wolfenzon, and Yeung (2004) summarizes this literature as follows: "In many countries, large pyramidal groups effectively entrust the corporate governance of substantial parts of their corporate sectors to a few extremely wealthy families. This can potentially magnify the poor governance of a few family patriarchs into inefficient economy-wide capital allocation, reduced investment in innovation, and retarded economic growth. Moreover, to preserve the *status quo*, these elite families sometimes appear to influence public policies so as to curtail private property rights development, capital market development and economic openness. We dub this situation *economic entrenchment*. We argue that much existing work points to economic entrenchment as a significant issue in many countries."
21 These restrictive regulations were actually not fully eliminated until the 1990s.

22 Rajan and Zingales (2003b) provide a graphic example in which incumbent financial institutions in Japan were able to repress the financial system with government help. In 1933, the Japanese banks were able to get the approval of the Ministry of Finance to set up a Bond Committee which decided which firms could issue corporate bonds and on what terms. As a result the Japanese banks were able to limit the issuance of corporate bonds to small amounts. With the opening up of the global financial markets in the late 1970s, this system broke down and corporate bond issuance skyrocketed.
23 Trade openness also weakens the effectiveness of capital controls because firms engaged in international trade can avoid them by over- and under-invoicing of exports and imports. With less effective capital controls due to openness of trade, it is more likely they will be abandoned, thereby promoting financial globalization. See Aizenman (2003).
24 Financial development also helps promote competition because it enables new firms to acquire firms so that they can compete with established firms. Increased competition is also a critical element in producing growth because it encourages efficiency and adoption of superior technology. Indeed, an important reason why developing countries like those in Latin America have done so poorly are their barriers to competition, among which is financial repression. For a discussion of how barriers to competition have stunted economic growth, see Cole et al. (2004).
25 For additional evidence see Levine and Zervos (1998a, 1998b), Bekaert and Harvey (2000), Bekaert, Harvey, and Lumsdaine (1998), Bekaert, Harvey, and Lundblad (2001), Henry (2000a, 2000b), International Monetary Fund (2001), and Kim and Singal (2000). Klein and Olivei (1999) and Bailliu (2000), however, find that these benefits are less clear for the poorest countries.
26 For example, see the surveys in Levine (1997), Eichengreen (2001), Fischer (2003), Edison et al. (2004), and Prasad et al. (2003). Prasad et al. (2003, p. 31) summarize this literature by saying: "Table 3 summarizes the 14 most recent studies on this subject. Three out of the fourteen papers report a positive effect of financial integration on growth. However, the majority of the papers tend to find no effect or a mixed effect for developing countries. This suggests that, if financial integration has a positive effect on growth, it is probably not strong or robust." In a later paper, Prasad et al. (2004) have a more positive slant on financial globalization stating that "we do find that financial globalization can be beneficial under the right circumstances. Empirically, good institutions and quality of governance are crucial in helping developing countries derive the benefits of globalization." Some of the most cited papers in this literature are Alesina, Grilli, and Milesi-Ferretti (2004), Quinn (1997), Kraay (1998), Rodrik (1998), Tornell, Westermann, and Martinez (2004), Arteta, Eichengreen, and Wyplosz (2001), Edwards (2001), and Edison et al. (2002). More recent evidence in Klein (2005), however, finds that capital account liberalization in countries with better institutions does indeed lead to higher growth.
27 Tornell, Westermann, and Martinez (2004) document the empirical relationship between financial liberalization and the increased incidence of financial crises.
28 Although not as well known, Chile went through a similar crisis in 1982–83. GDP declined almost 14% in 1982 and 3% in 1983, with inflation increasing to above 20%. See Alejandro (1985).
29 See Kaminsky and Reinhart (1999). Similar findings are found in Glick and Hutchison (1999), Demirguc-Kunt and Detragiache (1998a), and Williamson and Mahar (1998).
30 See Mishkin (1999, Table 2, p. 11).
31 See Mishkin (1999, Table 2, p. 11).
32 Krugman (1998) and Dooley (2000) emphasize that the government safety net was a key factor in producing lending booms and subsequent financial crises.
33 As Friedman and Schwartz (1963) have emphasized, another negative effect on the economy can occur through the effect of a banking panic on the money supply. Because a banking panic also results in a movement from deposits to currency, the usual money multiplier analysis indicates that the money supply will fall. The resulting decline in the money supply then leads to higher interest rates, which increase adverse selection and moral hazard problems in financial markets and cause a further contraction in economic activity.
34 Demirguc-Kunt and Detragiarche (1998b) find that greater competition from financial liberalization also lowers bank franchise value and hence bank net worth, which increases bank's incentives to take on excessive risk. This provides another reason why financial liberalization may promote a lending boom.
35 See Makoto and Kawakami (1997). The same top five chaebols produced value added of 8.4% of GDP.
36 This tendency was even stronger for the bigger and older commercial banks such as Korea First, Seoul, Hanil, and Commercial Bank of Korea. Naturally they were the worst hit by the 1997 crisis and had to be taken over by the government.
37 Although Brazil did undergo a fiscal and currency crisis in 1999, it did not undergo a financial crisis because its banking system was hedged against foreign exchange rate risk, in contrast to the other countries discussed here.

38 This analysis here is the same as that used by **Stiglitz and Weiss (1981)** to explain credit rationing in which some borrowers are denied loans even when they are willing to pay a higher interest rate. The Stiglitz-Weiss model was first applied to explaining how interest rate rises can lead to a financial collapse in **Mankiw (1986)**.
39 Note that this effect of higher interest rates is due to a contraction of the supply of loans, and operates over and above the usual demand story of why higher interest rates lead to an economic contraction. In that story, the demand for investment and borrowing falls when interest rates rise because the cost of financing investment projects has risen.
40 For empirical evidence that cash flows affect investment, see **Fazzari, Hubbard, and Petersen (1988)**, **Gertler and Gilchrist (1994)**, and the surveys in **Hubbard (1995)** and **Bernanke and Gertler (1995)**.
41 For a theoretical treatment and empirical evidence on net worth effects on investment and output fluctuations, see **Bernanke and Gertler (1989)**, **Calomiris and Hubbard (1989)**, **Calomiris and Hubbard (1990)**, and the surveys mentioned in the previous footnote.
42 One factor that helps lead to financial instability in industrialized economies, but not in emerging market economies, and so is not discussed above, is the debt-deflation phenomenon described in **Fisher (1933)**. In economies in which inflation has been moderate, which characterizes most industrialized countries, many debt contracts are typically of fairly long duration. In this institutional environment, an unanticipated decline in the price level leads to a decrease in the net worth of firms. When the price level falls it lowers the value of the assets, but since debt payments are contractually fixed in nominal terms, an unanticipated decline in the price level lowers firms' net worth. (Alternatively, the fall in the price level raises the value of firms' liabilities in *real* terms—increases the real burden of the debt, but does not raise the real value of the assets. The result is that net worth in *real* terms—the difference between assets and liabilities in *real* terms—declines.) An unanticipated deflation therefore causes a substantial decline in real net worth and an increase in adverse selection and moral hazard problems facing lenders. The resulting increase in adverse selection and moral hazard problems (of the same type that were discussed in assessing the effect of net worth declines earlier) will thus also work to cause a decline in investment and economic activity. The debt-deflation phenomenon is what the United States experienced during the Great Depression and it is what Japan has been experiencing recently, though to a lesser extent.
43 **Burnside, Eichenbaum, and Rebelo (2001)** point out that banking crises also can create fiscal imbalances because the government bailout of the banking system requires the government to run future budget deficits. This provides an additional channel for how deterioration of bank balance sheets can lead to speculative downward pressure on the domestic currency, and thus lead to a currency crisis.
44 **Eichengreen and Hausmann (1999)** and **Eichengreen, Hausmann, and Panizza (Forthcoming)** argue that an additional reason countries are unable to issue debt denominated in domestic currency is the lack of liquidity for markets in this type of debt. They call this phenomenon "original sin." It is however, highly controversial (e.g., see **Goldstein and Turner 2004**). The percentage of liabilities that are dollarized is close to 40% in both Latin America and low- and middle-income countries. See **Inter-American Development Bank** (2005, Figure 4.1, p. 50). Figure 4.7 on p. 53 shows that firms in non-tradable sectors are highly leveraged in foreign currency debt in countries with high levels of dollarization.
45 See **Calvo, Izquierdo, and Talvi (2003)**, who document that countries are more vulnerable to sudden stops if they have (i) low openness, (ii) a high degree of liability dollarization, or (iii) high debt levels.
46 The share of liabilities denominated in dollars in Argentina in 2001 was over 70%. See Inter-American Bank, *Unlocking Credit* (**Inter-American Development Bank 2005**, Figure 4.1, p. 50).
47 An important point is that even if banks have a matched portfolio of foreign-currency-denominated assets and liabilities and so appear to avoid foreign-exchange market risk, a devaluation can nonetheless cause substantial harm to bank balance sheets. The reason is that when a devaluation occurs, the offsetting foreign-currency-denominated assets are unlikely to be paid off in full because of the worsening business conditions and the negative effect that these increases in the value in domestic currency terms of these foreign-currency-denominated loans have on the balance sheet of the borrowing firms. Another way of saying this is that when there is a devaluation, the mismatch between foreign-currency-denominated assets and liabilities on borrowers balance sheets can lead to defaults on their loans, thereby converting a market risk for borrowers to a credit risk for the banks that have made the foreign-currency-denominated loans.
48 For a discussion of the sudden stop phenomenon in which capital inflows abruptly switch to capital outflows, see **Calvo and Reinhart (2000)**.
49 One of the earliest papers to test for contagion is **Eichengreen, Rose, and Wyplosz (1996)**. For surveys which discuss the extensive theoretical and empirical literature on contagion, see
Kaminsky, Reinhart, and Vegh (2003) and **Claessens, Dornbusch, and Park (2001)**.
50 However, **Kaminsky and Schmukler (2002)** take the view that the short-run pain from financial crises resulting from financial globalization may still result in long-run gains in growth.
51 See the surveys in **Pew Research Center (2003)**.

52 See Chapters 8–13 of my forthcoming book (Mishkin 2006) for my views on policies to promote successful financial globalization.

LITERATURE CITED

Abiad, Abdul, Nienke Oomes, and Kenichi Ueda. (2005) " The Quality Effect: Does Financial Liberalization Improve the Allocation of Capital? Paper presented at the Journal of Banking and Finance/World Bank Conference on Globalization and Financial Services in Emerging Market Countries, June 20–21.

Google Scholar

Acemoglu, Daron, Simon Johnson, and James A. Robinson. (2001) "The Colonial Origins of Comparative Development: An Empirical Investigation. *American Economic Review*, **91**:5, 1369–401.

Web of Science® | Google Scholar

Aghion, Philippe, and Patrick Bolton. (1997) "A Trickle-Down Theory of Growth and Development with Debt Overhang. *Review of Economic Studies*, **64**, 151–72.

Web of Science® | Google Scholar

Aghion, Philippe, Peter Howitt, and David Mayer-Foulkes. (2005) "The Effect of Financial Development on Convergence: Theory and Evidence. *Quarterly Journal of Economics*, **120**, 173–222.

Web of Science® | Google Scholar

Aizenman, Joshua. (2003) " On the Hidden Links Between Financial and Trade Opening." University of Santa Cruz mimeo .

Google Scholar

Albouy, David. (2005) " The Colonial Origins of Comparative Develoment: A Reexamination Based on Improved Settler Mortality Data." University of California mimeo , Berkeley , February.

Google Scholar

Alejandro, Carlos Diaz. (1985) "Goodbye Financial Repression: Hello Financial Crisis. *Journal of Development Economics*, **19**:1–2, 1–24.

Web of Science® | Google Scholar

Alesina, Alberto, Vittorio Grilli, and Gian Maria Milesi-Ferretti. (2004) " The Political Economy of Capital Controls." In *Capital Mobility: The Impact on Consumption, Investment and Growth*, edited by Leonardo Leiderman and Assaf Razin. Cambridge, UK : Cambridge University Press.

Google Scholar

Alfaro, Laura, Sebnem Kalemli-Ozcan, and Vadym Volosovych. (2003) " Why Doesn't Capital Flow from Rich to Poor Countries? An Empirical Investigation." Harvard Business School mimeo .

Google Scholar

Alfaro, Laura, Sebnem Kalemli-Ozcan, and Vadym Volosovych. (2004) " Capital Flows in a Globalized World: The Role of Policies and Institutions." Harvard Business School mimeo .

Google Scholar

Arteta, C., Barry Eichengreen, and Charles Wyplosz. (2001) " When Does Capital Account Liberalization Help More Than it Hurts?" NBER Working Paper No. 8414.

Google Scholar

Bailliu, Jeannine. (2000) " Private Capital Flows, Financial Development, and Economic Growth in Developing Countries." Bank of Canada Working Paper No. 2000-15.

Google Scholar

Banerjee, Abhijit, and Andrew Newman. (1993) "Occupational Choice and the Process of Development. *Journal of Political Economy*, **101**, 274–98.

Web of Science® Google Scholar

Barajas, Adolfo, Roberto Steiner, and Natalia Salazar. (2000) "The Impact of Liberalization and Foreign Investment in Colombia's Financial Sector. *Journal of Development Economics*, **63**:1, 157–96.

Web of Science® Google Scholar

Barth, James R., Gerard Caprio, and Ross Levine. (2001) " Banking Systems Around the Globe: Do Regulation and Ownership Affect Performance and Stability?" In *Prudential Regulation and Supervision: What Works and What Doesn't*, edited by Frederic S. Mishkin, pp. 31–95. Chicago : University of Chicago Press.

Google Scholar

Barth, James R., Gerard Caprio, Jr., and Ross Levine. (2002) " Bank Regulation and Supervision: What Works Best? World Bank Policy Research Paper No. 2733, forthcoming in *Journal of Financial Intermediation*.

Google Scholar

Beck, Thorsten, Asli Demirguc-Kunt, and Ross Levine. (2004) " Finance, Inequality and Poverty: Cross-Country Evidence." World Bank mimeo .

Google Scholar

Beck, Thorsten, and Ross Levine. (2004) " Legal Institutions and Financial Development." NBER Working Paper No. 10417.

Google Scholar

Beck, Thorsten, Ross Levine, and Norman Loayza. (2000) "Finance and the Sources of Growth. *Journal of Financial Economics*, **58**:1–2, 261–300.

Web of Science® Google Scholar

Bekaert, Geert, and Campbell R. Harvey. (2000) "Foreign Speculators and Emerging Equity Markets. *Journal of Finance*, **55**, 562–613.

Web of Science® Google Scholar

Bekaert, Geert, Campbell R. Harvey, and Robin L. Lumsdaine. (1998) " Dating the Integration of World Equity Markets." NBER Working Paper No. 6724.

Google Scholar

Bekaert, Geert, Campbell R. Harvey, and R. Lundblad. (2001) " Does Financial Liberalization Spur Growth?" NBER Working Paper No. 8245.

Google Scholar

Berkowitz, David, Katharina Pastor, and Jean-Francois Richard. (2000) " Economic Development, Legality and the Transplant Effect. Harvard University Center for International Development Working Paper No. 39.

Google Scholar

Bernanke, Ben S., and Mark Gertler. (1989) "Agency Costs, Net Worth and Business Fluctuations. *American Economic Review*, **79**:1, 14–31.

Web of Science® Google Scholar

Bernanke, Ben S., and Mark Gertler. (1995) "Inside the Black Box: The Credit Channel of Monetary Transmission. *Journal of Economic Perspectives*, **9**:4, 27–48.

Web of Science® Google Scholar

Bhagwati, Jagdish. (1998) "The Capital Myth: The Difference between Trade in Widgets and Dollars. *Foreign Affairs*, **77**, 3–13.

Web of Science® Google Scholar

Bhagwati, Jagdish. (2002) *The Winds of the Hundred Days: How Washington Mismanaged Globalization*. Cambridge , MA : MIT Press.

Google Scholar

Bhagwati, Jagdish. (2004) *In Defense of Globalization*. New York : Oxford University Press.

Google Scholar

Boyreau-Debray, Genevieve, and Shang-Jin Wei. (2004) " Pitfalls of a State-Dominated Financial System: The Case of China." CEPR Discussion Paper No. 4471.

Google Scholar

Burnside, Craig, Martin Eichenbaum, and Sergio Rebelo. (2001) " On the Fiscal Implications of Twin Crises." NBER Working Paper No. 8277.

Google Scholar

Calomiris, Charles. (2002) *A Globalist Manifesto for Public Policy*. London : Institute of Economic Affairs.

Web of Science® Google Scholar

Calomiris, Charles W., and R. Glenn Hubbard. (1989) "Price Flexibility, Credit Availability and Economic Fluctuations: Evidence from the United States, 1894–1909. *Quarterly Journal of Economics*, **54**, 429–52.

Web of Science® Google Scholar

Calomiris, Charles W., and R. Glenn Hubbard. (1990) "Firm Heterogeneity, Internal Finance, and 'Credit Rationing.' *Economic Journal*, **100**, 90–104.

Web of Science® Google Scholar

Calvo, Guillermo A., Alejandro Izquierdo, and Ernesto Talvi. (2003) " Sudden Stops, the Real Exchange Rate, and Fiscal Sustainability: Argentina's Lessons." NBER Working Paper No. 9828.

Google Scholar

Calvo, Guillermo, and Carmen Reinhart. (2000) " When Capital Inflows Come to a Sudden Stop: Consequences and Policy Options." In *Reforming the International Monetary and Financial System*, edited by Peter Kenen and Alexander Swoboda, pp. 175–201. Washington , DC : International Monetary Fund.

Web of Science® Google Scholar

Caprio, Gerard, and Maria Soledad Martinez-Peria. (2000) " Avoiding Disaster: Policies to Reduce the Risk of Banking Crises. World Bank mimeo, and Egyptian Center for Economic Studies Working Paper No. 47.

Google Scholar

Claessens, Stijn, Asli Demiriguc-Kunt, and Harry Huizinga. (2000) " The Role of Foreign Banks in Domestic Banking Systems." In *The Internationalization of Financial Services: Issues and Lessons for Developing Countries*, edited by Stijn Claessens and Marion Jansen. Boston : Kluwer Academic Press.

Google Scholar

Claessens, Stijn, Asli Demiriguc-Kunt, and Harry Huizinga. (2001) "How Does Foreign Bank Entry Affect Domestic Banking Markets. *Journal of Banking and Finance*, **25**:5, 891–911.

Web of Science® | Google Scholar

Claessens, Stijn, Rudiger Dornbusch, and Yung Chul Park. (2001) " Contagion, Why Crises Spread and How This Can Be Stopped." In *International Financial Contagion*, edited by Stijn Claessens and Kristin J. Forbes, pp. 9–41. Boston : Kluwer Academic Publishers.

Google Scholar

Claessens, Stijn, and Marion Jansen. (2000) *The Internationalization of Financial Services: Issues and Lessons for Developing Countries*. Dordrecht , Holland : Kluwer.

Google Scholar

Claessens, Stijn, and Leora Klapper. (2002) " Bankruptcy around the World: Explanations of Its Relative Use." World Bank mimeo, forthcoming in *American Law and Economic Review*.

Google Scholar

Clarke, George, Robert Cull, Laura D'Amato, and Andrea Molinari. (2000) " The Effect of Foreign Entry on Argentina's Banking System." In *The Internationalization of Financial Services: Issues and Lessons for Developing Countries*, edited by Stijn Claessens and Marion Jansen. Boston : Kluwer Academic Press.

Google Scholar

Cole, Harold L., Lee E. Ohanian, Alvara Riascos, and James A. Schmitz, Jr. (2004) " Latin America in the Rearview Mirror." NBER Working Paper No. 11008.

Google Scholar

Dehejia, Rajeev H., and Roberta Gatti. (2002) " Child Labor: The Role of Income Variability and Access to Credit in a Cross Section of Countries." World Bank Policy Research Paper No. 2767.

Google Scholar

Demirguc-Kunt, Asli, and E. Detragiache. (1998a) " Financial Liberalization and Financial Fragility. International Monetary Fund Working Paper No. 98/83.

Google Scholar

Demirguc-Kunt, Asli, and Enrica Detragiarche. (1998b) "The Determinants of Banking Crises: Evidence from Developed and Developing Countries. *IMF Staff Papers*, **45**:1, 81–109.

Web of Science® | Google Scholar

Demirguc-Kunt, Asli, and Vojislav Maksimovic. (1998) "Law, Finance and Firm Growth. *Journal of Finance*, **53**, 2107–37.

Web of Science® | Google Scholar

De Soto, Hernando. (2000) *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else*. New York : Basic Books.

Google Scholar

Dooley, Michael. (2000) "A Model of Crises in Emerging Markets. *Economic Journal*, **110**, 256–72.

Web of Science® | Google Scholar

Easterly, William, and Ross Levine. (2003) "Tropics, Germs and Crops: How Endowments Influence Economic Development. *Journal of Monetary Economics*, **50**:1, 3–40.

Web of Science® | Google Scholar

Edison, Hali J., Michael W. Klein, Luca A. Ricci, and Torsten Slok, (2004) "Capital Account Liberalization and Economic Performance: Survey and Synthesis. *IMF Staff Papers*, **51**:2, 26–62.

Google Scholar

Edison, Hali, Ross Levine, Luca Ricci, and Torsten Slok. (2002) "International Financial Integration and Economic Growth. *Journal of International Money and Finance*, **21**, 49–76.

Web of Science® | Google Scholar

Edwards, Sebastian. (2001) " Capital Mobility and Economic Performance: Are Emerging Economies Different?" NBER Working Paper No. 8076.

Google Scholar

Eichengreen, Barry. (2001) "Capital Account Liberalization: What Do Cross-Country Studies Tell Us. *The World Bank Economic Review*, **5**:3, 341–65.

Web of Science® | Google Scholar

Eichengreen, Barry, and Ricardo Hausmann. (1999) " Exchange Rates and Financial Fragility." In *New Challenges for Monetary Policy*, pp. 329–68. Kansas City : Federal Reserve Bank of Kansas City.

Google Scholar

Eichengreen, Barry, Ricardo Hausmann, and Ugo Panizza. (Forthcoming) " The Mystery of Original Sin." In *Other People's Money: Debt Denomination and Financial Instability in Emerging-Market Economies*, edited by Barry Eichengreen and Ricardo Hausmann. Chicago : University of Chicago Press.

Google Scholar

Eichengreen, Barry, Andrew Rose, and Charles Wyplosz. (1996) "Contagious Currency Crises: First Tests. *Scandanavian Journal of Economics*, **98**, 463–84.

Web of Science® Google Scholar

Estevadeordal, Fanz, and Alan Taylor. (2002) " The Rise and Fall of World Trade 1870–1939." NBER Working Paper No. W 9318.

Google Scholar

Fazzari, Steven M., R. Glenn Hubbard, and Bruce C. Petersen. (1988) "Financial Constraints and Corporate Investment: New Evidence on Financing Constraints. *Brookings Papers on Economic Activity*, **1**, 141–95.

Google Scholar

Fischer, Stanley. (2003) "Globalization and Its Challenges. *American Economic Review*, **93**, 1–30.

Web of Science® Google Scholar

Fisher, Irving. (1933) "The Debt-Deflation Theory of Great Depressions. *Econometrica*, **1**, 337–57.

Web of Science® Google Scholar

Folkerts-Landau, David, Gary J. Schinasi, M. Cassard, V.K. Ng, Carmen M. Reinhart, and M.G. Spencer. (1995) " Effect of Capital Flows on the Domestic Financial Sectors in APEC Developing Countries." In *Capital Flows in the APEC Region*, edited by Moshin S. Khan and Carmen M. Reinhart, pp. 31–57. Washington , DC : International Monetary Fund.

Google Scholar

Friedman, Milton, and Anna J. Schwartz. (1963) *A Monetary History of the United States 1867–1960*. Princeton , NJ : Princeton University Press.

Google Scholar

Galor, Oded, and J. Zeira. (1993) "Income Distribution and Macroeconomics. *Review of Economic Studies*, **60**, 35–52.

Web of Science® Google Scholar

Gertler, Mark, and Simon Gilchrist. (1994) “Monetary Policy, Business Cycles, and the Behavior of Small Manufacturing Firms. *Quarterly Journal of Economics*, **109**, 309–40.

Web of Science® | Google Scholar

Glaeser, Edward, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer. (2004) “ Do Institutions Cause Growth?” NBER Working Paper No. 10568.

Google Scholar

Glick, Reuven, and Michael Hutchison. (1999) “ Banking and Currency Crises: How Common are Twins?” In *Financial Crises in Emerging Markets*, edited by Reuven Glick, F. Moreno, and M. Spiegel. New York : Cambridge University Press.

Google Scholar

Goldberg, Linda. (2004) “ Financial Sector FDI and Host Countries: New and Old Lessons.” Federal Reserve Bank of New York Staff Report No. 183.

Google Scholar

Goldstein, Morris, and Philip Turner. (2004) *Controlling Currency Mismatches in Emerging Markets*. Washington , DC : Institute for International Economics.

Google Scholar

Haber, Stephen. (1997) *How Latin America Fell Behind: Essays on the Economic Histories of Brazil and Mexico, 1800–1914*. Stanford , CA : Stanford University Press.

Google Scholar

Haber, Stephen. (2004) “ Political Competition and Economic Development: Evidence from the Banking Systems of the United States and Mexico.” Stanford University mimeo .

Google Scholar

Hahm, Joon-Ho. (2003) “ The Government, the Chaebol and Financial Institutions Before the Economic Crisis.” In *Economic Crisis and Corporate Restructuring in Korea*, edited by Stephan Haggard, Wonhyuk Lim, and Euysung Kim, pp. 79–101. Cambridge , UK : Cambridge University Press.

Google Scholar

Hahm, Joon-Ho, and Frederic S. Mishkin. (2000) “The Korean Financial Crisis: An Asymmetric Information Perspective” (with Joon-Ho Hahm). *Emerging Markets Review*, **1**:1, 21–52.

Google Scholar

Henry, Peter Blair. (2000a) "Equity Prices, Stock Market Liberalization, and Investment. *Journal of Financial Economics*, **58**:1–2, 301–34.

Web of Science® | Google Scholar

Henry, Peter Blair. (2000b) "Stock Market Liberalization, Economic Reform, and Emerging Market Equity Prices. *Journal of Finance*, **55**, 529–64.

Web of Science® | Google Scholar

Henry, Peter Blair. (2003) "Capital Account Liberalization, the Cost of Capital and Economic Growth. *American Economic Review*, **93**:2, 91–96.

Web of Science® | Google Scholar

Hongyi, Li, Lyn Squire, and Heng-fu Zou. (2001) "Explaining International and Intertemporal Variations in Income Inequality. *Economic Journal*, **108**:1, 26–43.

Google Scholar

Honohan, Patrick. (2004) " Financial Development, Growth and Poverty: How Close Are the Links?" World Bank Policy Working Paper No. 3203.

Google Scholar

Hubbard, R. Glenn. (1995) "Is There a 'Credit Channel' for Monetary Policy? *Federal Reserve Bank of St. Louis Review*, **77**, 63–74.

Google Scholar

Inter-American Development Bank. (2005) *Unlocking Credit: The Quest for Deep and Stable Bank Lending*. *2005 Report, Economic and Social Progress in Latin America*. Washington , DC : Inter-American Development Bank and Johns Hopkins University Press.

Google Scholar

International Monetary Fund. (2001) *World Economic Outlook*. Washington , DC : IMF.

Google Scholar

Jeong, Hyeok, and Robert M. Townsend. (2005) " Sources of TFP Growth: Occupational Choice and Financial Deepening." University of Chicago mimeo .

Google Scholar

Jewsiewicki, B. (1983) " Rural Society and the Belgian Colonial Economy." In *The History of Central Africa, Volume II*, edited by D. Birmingham and P.M. Martin. New York : Longman.

Web of Science® | Google Scholar

Kaminsky, Graciela L., and Carmen M. Reinhart. (1999) "The Twin Crises: The Causes of Banking and Balance of Payments Problems. *American Economic Review*, **89**, 473–500.

Web of Science® | Google Scholar

Kaminsky, Graciela L., Carmen M. Reinhart, and Carlos A. Vegh. (2003) " The Unholy Trinity of Financial Contagion." NBER Working Paper No. 10061.

Google Scholar

Kaminsky, Graciela, and Sergio Schmukler. (2002) " Short-Run Pain, Long-Run Gain: The Effects of Financial Liberalizations." World Bank Working Paper No. 2912.

Google Scholar

Kane, Edward. (1977) "Good Intentions and Unintended Evil: The Case Against Selective Credit Allocation. *Journal of Money, Credit and Banking*, **9**:1, 55–69.

Web of Science® | Google Scholar

Kearl, James R., Clayne L. Pope, Gordon C. Whiting, and Larry T. Dimmer. (1979) "A Confusion of Economists. *American Economic Review Papers and Proceedings*, **69**:2, 28–37.

Web of Science® | Google Scholar

Kim, E. Han, and Vijay Singal. (2000) "Stock Market Opening: Experience of Emerging Market Economies. *Journal of Business*, **73**, 25–66.

Web of Science® | Google Scholar

King, Robert, and Ross Levine. (1993) "Finance and Growth: Schumpeter Might Be Right. *Quarterly Journal of Economics*, **108**, 717–37.

Web of Science® | Google Scholar

Klein, Michael. (2005) " Capital Account Liberalization, Institutional Quality and Economic Growth: Theory and Evidence." NBER Working Paper No. 11112.

Google Scholar

Klein, Michael, and Giovanni Olivei. (1999) " Capital Account Liberalization, Financial Depth and Economic Growth." NBER Working Paper No. 7384.

Google Scholar

Kraay, Art. (1998) " In Search of the Macroeconomic Effects of Capital Account Liberalization." World Bank, Development Research Group , Washington , DC .

Google Scholar

Krugman, Paul. (1998) " What Happened to Asia?" MIT mimeo.

Google Scholar

La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert W. Vishny. (1997) "Legal Determinants of External Finance. *Journal of Finance*, **52**:3, 1131–50.

Web of Science® Google Scholar

La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert W. Vishny. (1998) "Law and Finance. *Journal of Political Economy*, **106**:6, 1113–55.

Web of Science® Google Scholar

La Porta, Rafael, Florencio Lopez-de-Silanes, and Andrei Shleifer. (2002) "Government Ownership of Banks. *Journal of Finance*, **57**:1, 265–301.

Web of Science® Google Scholar

Levine, Ross. (1996) " Foreign Banks, Financial Development and Economic Growth." In *International Financial Markets: Harmonization versus Competition*, edited by Claude E. Barfield. Washington , DC : AEI Press.

Web of Science® Google Scholar

Levine, Ross. (1997) "Financial Development and Economic Growth: Views and Agenda. *Journal of Economic Literature*, **35**:2, 688–72.

Web of Science® Google Scholar

Levine, Ross. (2004) " Finance and Growth. NBER Working Paper No. 10779, forthcoming in *Handbook of Economic Growth*, edited by Philippe Aghion and Steven N. Durlauf. North-Holland .

Google Scholar

Levine, Ross, Norman Loayza, and Thorsten Beck. (2000) "Financial Intermediation and Growth: Causality and Causes. *Journal of Monetary Economics*, **46**:1, 31–77.

Web of Science® Google Scholar

Levine, Ross, and Sara Zervos. (1998a) "Stock Markets, Banks, and Economic Growth. *American Economic Review*, **88**:3, 537–58.

Web of Science® Google Scholar

Levine, Ross, and Sara Zervos. (1998b) “Capital Control Liberalization and Stock Market Development. *World Development*, **26**, 1169–84.

Web of Science® | Google Scholar

Lucas, Robert. (1990) “Why Doesn't Capital Flow from Rich to Poor Countries? *American Economic Review*, **80**:2, 92–6.

PubMed | Web of Science® | Google Scholar

Maddison, Angus. (2001) *The World Economy: A Millennial Perspective*. Paris : Development Centre of the Organization for Economic Co-operation and Development.

Google Scholar

Makoto, Abe, and Mamoko Kawakami. (1997) “A Distributive Comparison of Enterprise Size in Korea and Taiwan. *The Developing Economies*, **35:4**, 382–400.

Google Scholar

Mankiw, N. Gregory. (1986) “The Allocation of Credit and Financial Collapse. *Quarterly Journal of Economics*, **101**, 455–70.

Web of Science® | Google Scholar

Mishkin, Frederic S. (1999) “Global Financial Instability: Framework, Events, Issues. *Journal of Economic Perspectives*, **13**:4, 3–20.

Web of Science® | Google Scholar

Mishkin, Frederic S. (2003) “ Financial Policies and the Prevention of Financial Crises in Emerging Market Countries.” In *Economic and Financial Crises in Emerging Market Countries*, edited by Martin Feldstein, pp. 93–130. Chicago : University of Chicago Press.

Web of Science® | Google Scholar

Mishkin, Frederic S. (2006) *The Next Great Globalization: How Disadvantaged Nations Can Harness Their Financial Systems to Get Rich*. Princeton , NJ : Princeton University Press.

Google Scholar

Morck, Randall, Daniel Wolfenzon, and Bernard Yeung. (2004) “Corporate Governance, Economic Entrenchment and Growth. NBER Working Paper No. 10692, forthcoming in *Journal of Economic Literature*.

Google Scholar

Obstfeld, Maurice, and Alan M. Taylor. (2002) " Globalization and Capital Markets." NBER Working Paper No. 8846.

Google Scholar

Obstfeld, Maurice, and Alan M. Taylor. (2004) *Global Capital Markets: Integration, Crisis and Growth*. Cambridge, UK : Cambridge University Press.

Google Scholar

Pew Research Center for the People & the Press. (2003) *Views of a Changing World: June 2003*. Washington , DC : Pew Research Center for the People & the Press.

Google Scholar

Prasad, Eswar, Kenneth Rogoff, Shang-Jin Wei, and M. Ayhan Kose. (2003) " Effects of Financial Globalization on Developing Countries: Some Empirical Evidence." International Monetary Fund mimeo .

Google Scholar

Prasad, Eswar, Kenneth Rogoff, Shang-Jin Wei, and M. Ayhan Kose. (2004) " Financial Globalization Growth and Volatility in Developing Countries." NBER Working Paper No. 10942.

Google Scholar

Rodrik, Dani, Arvind Subramanian, and Francesco Trebbi. (2002) " Institutions Rule: The Primacy of Institutions over Geography and Integration in Economic Development." NBER Working Paper No. 9305.

Google Scholar

Quinn, Dennis P. (1997) "The Correlates of Change in International Financial Regulation. *American Political Science Review*, **91**, 531–51.

Web of Science® Google Scholar

Rajan, Raghuram, and Luigi Zingales. (1998) "Financial Dependence and Growth. *American Economic Review*, **88**:3, 559–86.

Web of Science® Google Scholar

Rajan, Raghuram, and Luigi Zingales. (2003a) "The Great Reversals: The Politics of Financial Development in the 20th Century. *Journal of Financial Economics*, **69**, 5–50.

Web of Science® Google Scholar

Rajan, Raghuram G., and Luigi Zingales. (2003b) *Saving Capitalism from the Capitalists: Unleashing the Power of Financial Markets to Create Wealth and Spread Opportunity*. New York : Crown Business.

Google Scholar

Rodrik, Dani. (1998) " Who Needs Capital-Account Convertibility?" In *Should the IMF Pursue Capital-Account Convertibility?* edited by Stanley Fischer *et al.* Essays in International Finance No. 207, Department of Economics, Princeton University .

Google Scholar

Schmukler, Sergio L. (2004) "Financial Globalization: Gain and Pain for Developing Countries. *Federal Reserve Bank of Atlanta Review*, **2**, 39–66.

Google Scholar

Stiglitz, Joseph. (2002) *Globalization and its Discontents* New York : W.W. Norton.

Google Scholar

Stiglitz, Joseph E., and Andrew Weiss. (1981) "Credit Rationing in Markets with Imperfect Information. *American Economic Review*, **71**, 393–410.

Web of Science® Google Scholar

Soros, George. (2002) *On Globalization*. New York : Public Affairs.

Google Scholar

Svalaeryd, H., and J. Vlachos. (2002) "Market for Risk and Openness to Trade: How Are They Related? *Journal of Public Economics*, **57**:2, 364–95.

Google Scholar

Taylor, Alan M. (1992) "External Dependence, Demographic Burdens and Argentine Economic Decline after the *Belle Poque*. *Journal of Economic History*, **52**, 907–36.

Web of Science® Google Scholar

Taylor, Alan. (2002) " Globalization, Trade and Development: Some Lessons from History." NBER Working Paper No. 9326.

Google Scholar

Tornell, Aaron, Frank Westermann, and Lorenza Martinez. (2004) " The Positive Link Between Financial Liberalization, Growth and Crises." NBER Working Paper No. 10293.

Google Scholar

Unite, Angelo, and Michael Sullivan. (2003) "The Effect of Foreign Entry and Ownership Structure on the Philippine Domestic Banking Market. *Journal of Banking and Finance*, **27**:12, 2323–45.

Web of Science® | Google Scholar

Weitzman, Martin. (1970) "Soviet Postwar Economic Growth and Capital Labor Substitution. *American Economic Review*, **60**:4, 676–92.

Web of Science® | Google Scholar

Williamson, John, and M. Mahar. (1998) *A Survey of of Financial Liberalization*. Princeton Essays in International Finance No. 211, Princeton University , Princeton , NJ .

Google Scholar

Wolf, Martin. (2004) *Why Globalization Works?* New Haven, CT : Yale University Press.

Google Scholar

World Bank. (2001) *Finance for Growth: Policy Choices in a Volatile World*. Oxford, UK : World Bank and Oxford University Press.

Google Scholar

World Bank. (2004) *World Development Indicators*. Washington , DC : World Bank.

Web of Science® | Google Scholar

World Bank. (2005) *Doing Business in 2005: Removing Obstacles to Growth*. Washington , DC : World Bank, International Finance Corporation, and Oxford University Press.

Google Scholar

Citing Literature