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Perspective Paper on Financial Instability

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Abstract

Financial instability is a major problem for the world's middle-income developing countries. Barry Eichengreen's proposal for dealing with the problem treats currency mismatches—the fact that developing countries borrow in dollars instead of their own currency—as the principal cause. I argue that institutional flaws, with monetary and fiscal policy for example, drive financial instability and also account for countries' inability to place local-currency denominated debt contracts. Since weak institutions are to blame, efforts to help countries build stronger institutions will likely yield greater benefits than narrow attempts to address currency mismatches *per se*.

1. Introduction

Barry Eichengreen deserves a hero's tribute. The twelve labors of Hercules are mere child's play in comparison to the task that the Copenhagen Consensus has set before him. While anyone who has been reading the newspaper for the past 20 years knows that financial crises can be highly disruptive to developing countries, proposing a series of policy options to combat financial instability and producing a cost-benefit analysis of each option is an altogether different matter. Eichengreen's challenge paper is an excellent piece of work. It summarizes a vast amount of material in a lucid and compelling manner; the discussion of the literature is balanced; and the costs of financial instability are forcefully established but not overstated.

The paper identifies three sources of financial instability: banking crises, currency crises, and twin crises (the simultaneous occurrence of a banking crisis and a currency crisis). The paper calculates the cost of each type of crisis by surveying the empirical literature on financial crises and performing simple back-of-the-envelope calculations. The paper then presents four potential policy options for reducing financial instability. The four policy options are: (1) re-regulation of domestic financial markets to address the problem of banking crises (2) re-imposition of capital controls to address the problem of currency crises; (3) creation of a single global currency; (4) pursuit of an international solution to the currency mismatch problem.

The cost-benefit analysis of the four options reaches the following conclusions: Each of the first two options entails costs that are larger than their benefits; the benefits of the third option outweigh the costs but a single-world currency is politically infeasible; the fourth option is feasible and it offers the largest positive net benefits. Importantly, the paper warns the reader, especially the organizers of the conference, not to focus too narrowly on the final cost-benefit numbers and instead to keep in mind the bigger picture.

From that bigger picture, three central messages emerge: (1) Financial instability is costly—on average, financial instability reduces GDP growth in developing countries by 1 percentage point per year; (2) any attempt to reduce financial instability must begin with an examination of the causes of financial instability; (3) policy options to limit financial instability have costs as well as benefits; some instability may be the natural by-product of structural changes that improve a country's ability to exploit growth opportunities; attempts to curb this kind of instability may come at the cost of lower future growth rates. I am in broad agreement with all three messages, but I disagree with some of the details.

My objections are not methodological. Eichengreen's decision to perform simple, transparent calculations is surely the most helpful approach for this forum. As he emphasizes, the calculations are meant to focus attention on the fundamental tradeoffs that are at stake and the calculations certainly accomplish that goal.

Nor are my objections philosophical. The paper emphasizes the power of markets, but also acknowledges their limitations. In Eichengreen's view, markets generally work best, but policy interventions can be welfare improving when externalities and information asymmetries are present. No reasonable economist could object to such a characterization.

Rather, my concerns lay with the way in which the paper frames the analysis of the policy options. For example, the paper describes the first policy option, re-regulation of domestic capital markets, as tantamount to financial repression. Similarly, the analysis of capital controls considers only the most draconian of measures—a complete prohibition of any cross-border capital flows. While policies that restrain financial markets have costs as well as benefits, the tradeoffs need not be so stark. Prudential oversight and supervision of domestic financial markets are not the same thing as financial repression. Similarly, there are a continuum of

sensible policy options that lie between completely unfettered capital flows, on the one hand, and the reimposition of strict capital controls on the other. A more nuanced view of domestic and international financial policy—monitoring and surveillance as opposed to re-regulation and prohibition—delivers a more sanguine (and accurate) picture of the potential for banking and capital account policies to reduce the frequency and severity of crises.

Second, I don't think that the benefits of the proposal to solve the currency mismatch problem of developing countries would be as large as the estimates in the paper. The cost-benefit analysis of the proposal assumes that the proposal would eliminate currency crises. I am not so sure. The validity of the assumption hangs critically on the notion that developing countries are unable to issue debt in their own currency because of a variety of factors that are completely beyond their control. An equally plausible explanation is that countries have not been able to issue local-currency denominated debt because they suffer from weak institutions. The Eichengreen-Hausmann proposal for allowing countries to issue debt in their own currency is a remarkable intellectual construction, but it focuses too little attention on the more fundamental changes that are needed to reduce financial instability in developing countries.

Finally, and it is not an objection per se, the policy options that Eichengreen presents need not be regarded as mutually exclusive. For example, policies directed at the capital account and the banking system interact with one another. As such, they have to be viewed as part of a broader package of policies that try to reduce financial instability by strengthening domestic institutions. If one accepts the argument that measured and deliberate steps toward capital account liberalization along with prudential regulation and oversight of the domestic financial system can yield positive net benefits, then there is no reason not to implement multiple policy options in parallel.

2. How Large Are The Costs of Financial Instability?

Eichengreen estimates the cost of financial crises in two steps. First, he notes that the average output loss associated with a financial crisis is approximately 9 percent of GDP or 0.09 (Bordo, Eichengreen, Klingebiel, and Martinez Peria, 2001). Next, he documents that the probability that a randomly selected country experiences a crisis in a given year is 8 percent or 0.08. Finally, he argues that the expected output loss associated with financial crises can be computed by multiplying the two numbers. The resulting figure is 0.0072, or roughly seven-tenths of a percentage point of GDP growth per year.

Other authors have reached similar conclusions using different methodologies, so there is little doubt that the average cost of a financial crisis is large. For example, Table 1.11 on page 68 of Dobson and Huffbauer (2001) reports that the average annual loss of GDP in emerging markets due to financial crises in the 1990s was about 0.7 percentage points of growth per year. After surveying the literature more broadly, Eichengreen concludes that a reasonable estimate of the cost of a financial crisis is roughly 1 percentage point of GDP growth per annum.

The one percentage point number is the cost of all financial crises lumped together—banking crises, currency crises and twin crises. In order to compute the cost of a stand-alone banking crisis, the paper performs another series of calculations. The cost of a typical banking crisis is 53 percent of the cost of the typical currency crisis and, in any given year, a banking crisis is 66 percent as likely as a currency crisis. The paper thus argues that multiplying 53 percent by 66 percent gives the fraction of the financial crisis-induced reduction in output that is attributable to banking crises alone—roughly 30 percent or 0.3 percentage points of GDP growth per year. The cost of a currency crisis is taken to be the remainder of the financial crisis-induced reduction in GDP—0.7 percentage points of growth per year. I have one minor question of

clarification about this calculation. It seems to assume, contrary to discussion elsewhere in the paper, that the probability of a twin crisis is equal to zero.

To see the point, recall that the expected cost of a financial crisis is equal to 1 percentage point of GDP growth per year. Since there are three types of crises—banking, currency, and twin—it seems that conditional on the occurrence of a crisis, the following relationship must hold:

$$1 = \textit{Expected Cost of a Financial Crisis} = B \cdot P_B + C \cdot P_C + T \cdot P_T \quad (1)$$

Where B , C and T are the costs of banking, currency and twin crises, and P_B , P_C , and P_T are the associated probabilities of occurrence. Using the observation that $B = 0.53C$ and $P_B = 0.66 P_C$, we can rewrite (1) as

$$1 = \textit{Expected Cost of a Financial Crisis} = 1.35C \cdot P_C + T \cdot P_T \quad (2).$$

If $P_T = 0$ we get Barry's result that the expected cost of a banking crisis $C \cdot P_C$ is equal to roughly 0.3 percentage points of GDP growth. If P_T is not equal to zero, then the costs will be somewhat different. Now, none of the final rankings of the policy options are altered by this observation and, I may be grabbing at the short end of the stick, but it would be helpful to state the assumptions that went into the calculation a bit more explicitly.

2A. Are the Calculations Reasonable?

Eichengreen takes the most transparent approach to the task at hand. He surveys the empirical literature to ascertain consensus estimates of the effects of financial development and financial crises on economic growth. He then uses these estimates to perform simple expected value calculations. There are many grounds on which to question the validity of such calculations, because even the most careful estimates come with a laundry list of caveats. For

example, there is much evidence that financial development is associated with higher growth, but a reasonable reader of this literature could still come away unpersuaded about the direction of causation (Zingales, 2002).

Issues of causality notwithstanding, the organizers of the conference have imposed the discipline of coming up with an answer. Economists who want to be helpful sometimes have to step outside the pristine environs of the university seminar room and carefully feel their way through the murky empirical reality of the policy world (McMillan 2003). Still, a balance must be struck. Rules of thumb and simple calculations provide points of reference around which to organize constructive discussion and disagreement, not immutable truths.

Eichengreen's paper gets this balancing act right. The methodology is careful yet practical. The estimates of the costs of financial instability are conservative. In fact, they may be too conservative. There are two costs of financial instability. The first cost is direct—financial crises induce collapses in actual output. The second is indirect—weak economic institutions that lay at the heart of financial instability may also contribute to poor resource allocation, thereby reducing potential output. The estimates in the paper capture the first effect but not the second. I am not suggesting that Eichengreen should have tried to measure the second effect; his task was difficult enough. The point is that the economic consequences of financial instability may be even greater than the already large effects suggested by Eichengreen's conservative approach.

3. What Causes Financial Instability?

Addressing financial instability requires an examination of its root causes. The paper identifies four potential causes from the literature: unsustainable macroeconomic policy, fragile financial systems, institutional weaknesses, and flaws in the structure of international financial

markets. Since the paper's preferred policy option focuses on the last of these four causes, I begin there.

One flaw of international financial markets that plays a central role in the analysis is the idea that financial markets are incomplete. Markets for developing countries are incomplete because there are contingencies for which they would like to write financial contracts, but are unable to do so for a host of reasons. One particularly salient example is the absence of a market in which developing countries are able to raise external financing with debt contracts denominated in their own currency. In other words, developing countries can only raise external financing by issuing dollar-denominated debt. In other work, Eichengreen and his coauthor, Ricardo Hausmann, have dubbed this phenomenon original sin (Eichengreen and Hausmann, 2003). For Eichengreen and Hausmann, original sin is completely exogenous; developing countries' inability to issue local-currency denominated debt stems from external factors completely beyond their control.

The problem with issuing dollar-denominated debt is that it creates a currency mismatch. The country's flow of income is largely denominated in domestic currency while its liabilities are denominated in dollars. Suppose that a country with a currency mismatch is hit by a real shock—a worsening of its terms of trade, for example—that requires a devaluation of the currency. At the same time that the country's income is falling, its repayment burden is rising due to the devaluation. If, in addition to the government, firms have also borrowed in dollars then the problem is even worse. As the dollar value of assets fall, some firms find themselves in a position of negative net worth.¹ Since many of these firms will also have loans through the

¹ In principle, borrowing in dollars creates a liability mismatch only for firms whose revenues are in local currency. Firms whose revenues are in dollars (such as exporters) may actually see their profitability rise when a devaluation occurs. Of course, if there is a financial crisis in the banking system, those firms may still be adversely affected if panic or financially stricken banks are no longer able to extend them credit.

domestic banking system, a currency crisis may precipitate a spate of non-performing loans and an attendant banking crisis (Krueger, 2000; Mishkin, 2003).

3A. The Eichengreen-Hausmann Proposal for Curbing Financial Instability

If currency mismatches are the fundamental source of financial instability, it follows that one way to reduce instability is to help countries borrow in local-currency denominated debt. Since developing countries seem unable to raise financing in their own currency, the paper proposes that the World Bank and other international financial institutions (IFIs) step in to complete the market.

Specifically, the paper proposes a 3-step international solution to the currency mismatch problem. First, the IFIs would define a synthetic index called the EM, comprised of a basket of emerging market currencies. Second, the IFIs would issue debt denominated in EMs (their AAA rating would allow them to avoid original sin) and, at the same time, convert their concessional loans into claims denominated in the inflation-indexed currency of the countries comprising the index. Converting their concessional loans in this fashion would allow the IFIs to avoid a currency mismatch. Third, G-10 countries would issue debt in EMs. In order for the G-10 issuers to avoid a currency mismatch, they would swap their EM-denominated liabilities with the countries whose currencies comprise the EM index. By engaging in these swaps the developing countries would reduce their currency mismatches by passing their dollar-denominated debt obligations to the G-10 countries in exchange for inflation-indexed local-currency denominated liabilities.

What would be the net benefits of such a policy initiative? The paper's calculation goes as follows. The gross benefit of the policy initiative is simply the negative of the cost of the type

of crisis it helps avert. The paper assumes that having the IFIs borrow and lend in local currencies would eliminate currency crises by helping countries avoid currency mismatches. From the earlier calculation (see Section 1 of this discussion) the expected cost of currency crises is a loss of 0.7 percent of developing country GDP, so the benefit is a gain of 0.7 percent of GDP or an initial flow benefit of \$107 billion. The financing cost of the initiative is rounding error relative to the size of the gain, so the net benefits of the policy initiative would be large.

3B. Would the Eichengreen-Hausmann Proposal Work?

Currency mismatches can certainly exacerbate crises, and it is a little ironic that the loan structure of the world's largest development institution exacerbates its clients' currency mismatch. So, the suggestion that the World Bank denominate concessional lending to its clients in local-currency-denominated inflation-indexed debt has a sensible ring to it (Williamson, 2003a, b). Having said that, I have several concerns about the ability of the broader proposal to deliver the kinds of benefits the paper envisions.

The broader proposal, specifically the third step, presumes that transactions costs are the principal obstacle to developing countries being able to issue debt in their own currency. The transactions-cost argument says that developing countries are "forced" to issue dollar-denominated debt, because global financial portfolios are concentrated in the currencies of a few large countries. Outside of these large countries, the transactions costs associated with borrowing and lending in an additional currency exceed the marginal benefit that would accrue to developed-country investors. Consequently, they refuse to do so.

But the swaps envisioned in the third step of the proposal would involve precisely the kinds of transactions costs that Eichengreen sees as the leading explanation of original sin. The

only difference is that under the Eichengreen-Hausmann proposal the transactions costs are shifted from institutional investors to the G-10 governments. To the extent that transactions costs are the obstacle to local-currency lending, it is not obvious that G-10 governments—who don't need to issue EM debt in the first place—have a greater incentive to bear these costs than do institutional investors. More generally, it seems to me that the transactions cost argument has two weaknesses.

First, developed-country managers of developing country investment portfolios also face currency-related transactions costs when they buy stocks in developing countries. Yet the fraction of developing country stocks in developed country portfolios has been increasing over time (Stulz, 1999). Why should transactions costs deter managers from buying local currency bonds but not stock? Now, it is true that stock returns and bond returns have different stochastic properties. So, it is possible that the diversification benefits of developing country stocks are large enough to offset the currency-related transactions costs that inhibit investment in local-currency bonds. But in order for the transactions cost argument to stand, the superior diversification benefits of emerging market stocks over bonds would have to be demonstrated empirically—no such evidence is presented in the paper.

Second, purchasing dollar-denominated debt may also entail substantial expected transactions costs. Many countries default on their dollar-denominated debt as a matter of course (Reinhart and Rogoff, 2004; Shleifer 2003). When defaults occur, bondholders incur transactions costs in the form of debt negotiations and restructurings. It is not obvious that the transactions costs associated with managing a bond portfolio of multiple domestic-currencies are significantly larger than the expected renegotiation costs associated with purchasing dollar-denominated debt from countries that are prone to default.

Furthermore, currency swaps cannot get around the risk that arises from the possibility that the counterparty—in this case the developing country governments—will renege on their obligations. If developing country governments do not uphold their end of the swap, the G-10 governments will be stuck with the legal responsibility for servicing the EM debt. Knowing this up front, G-10 governments may charge a swap fee that raises the cost of the swap to developing country counterparties. Potential investors in EM bonds are also forward looking. They realize that after these swaps take place they will effectively be left holding local currency-denominated claims on developing country governments. To the extent that the original sin argument is valid, potential investors might also require a premium for bearing the risk of potential debt servicing disruption in the case of counterparty default. The point is that swaps are not a free lunch. We cannot evaluate the feasibility of the Eichengreen-Hausmann proposal without addressing the basic question: Why can't developing countries issue debt in their own currency?

An alternative view to that of original sin says that financial market incompleteness is endogenous. Developing countries are unable to issue debt in their own currency because they have weak economic institutions—lax fiscal policy, profligate monetary policy, and poor creditor rights, to name a few. Weak institutions make investors reluctant to hold a country's debt. For example, a country that has no legal separation of fiscal and monetary policy may print currency in order to meet its fiscal obligations. Doing so inevitably generates inflation. From 1970 to 1999 inflation in Argentina averaged over 300 percent per year (Rogoff, 2003). Nominal bonds are not a good investment in such an environment.

While poor institutions may leave investors vulnerable to moral hazard, original sin advocates might counter that poor institutions can't explain countries' inability to borrow in local currency, because financial markets have short memories. Countries that default on their debt

regain access to international capital markets in relatively short order. If financial markets have short memories of default, then they should also possess short memories about institutional weaknesses that have generated inflation and other macroeconomic problems in the past.

Financial markets may be quick to re-lend to defaulters, but that does not mean default is irrelevant. Countries with a history of default may suffer from lower credit ratings, higher borrowing costs, and debt intolerance (Reinhart, and Rogoff, and Savastano 2003). Just as banks charge higher interest rates to risky customers, requiring countries to borrow in dollar-denominated debt may simply be lenders' way of insuring against the possibility that sovereign borrowers will attempt to inflate away the real value of their payment obligations.

If inflation risk is the problem, then why don't countries simply issue inflation-indexed debt? Well, inflation-indexed debt protects investors against inflation risk, but they still bear the risk that the government will default on its obligations outright. If a government has weak fiscal institutions—a poor tax collection system, for example—then it simply may not have the capacity to raise the real resources that it needs to service its debt and the risk of default may be significant. The central issue here is credibility. Whether debt contracts are written in dollars or inflation-indexed local-currency terms, the question is: Do markets believe that the government has the ability to collect, and the will to deliver, the real resources that are necessary to honor its debt obligations? No amount of financial engineering can circumvent this reality.

Broadly speaking, fiscal and monetary policy institutions have been improving in developing countries. In comparison with the 1970s and 1980s, fiscal deficits today are smaller, central banks more independent, and monetary policies more conservative (Rogoff, 2003). The impact of stronger fiscal and monetary institutions is evident in the data. For example, in Latin America the average annual rate of consumer price inflation from 1980 to 1999 was roughly 130

percent; from 2000 to 2004 that figure dropped to 7.9 percent (Rogoff, 2003). If inflation is lower and deficits are smaller, then why are governments, in particular Latin American ones, still resorting to dollar-denominated debt? There are at least three possible answers.

First, credibility does not come overnight. It is easy to forget in what is now a low inflation environment that things were not always so. In the United States, the Federal Reserve had to engineer a massive recession—the prime rate hit 21 percent at one point in 1979—under Chairman Paul Volcker in order to reduce inflation. The Fed’s inflation-fighting credibility today is the hard-won prize of two straight decades of a vigilant anti-inflationary stance. In contrast, lower inflation in Latin America, is a much more recent phenomenon.

Second, although fiscal deficits are smaller, many developing countries still have less efficient tax collection systems than their developed-country counterparts. Historically, taxes on trade-related items have comprised the largest fraction of tax revenue in developing countries. Consequently, trade liberalization during the 1980s significantly decreased their trade-related tax intake and led to a decline in total tax revenue as a fraction of GDP (Reinhart, Rogoff, and Savastano, 2004). Again, at the end of the day, the government must be both able and willing to service its debt, irrespective of the currency in which that debt is denominated.

Finally, countries may simply have not tried hard enough to avoid dollar-denominated debt. Politicians in search of the next election victory may find it in their narrow self-interest to issue dollar-denominated debt, ignoring the obvious externalities it imposes on the populace (Rajan, 2004). Issuing dollar-denominated debt is certainly easier than trying to implement the more fundamental changes that would make the issuance of local-currency debt a feasible alternative. Again, it makes sense for the World Bank and other IFIs to index the repayment of their concessional loans to the real-local currency value of the countries to which they are

lending. But instead of having the World Bank serve as an intermediary between developing countries and G-10 lenders, why not let the developing countries issue inflation-indexed debt to them directly?

In fact, local currency markets bond markets are developing and some countries have begun to issue local-currency denominated debt (Del Valle and Ugolini, 2003; Turner, 2003). To be sure, these are fledgling developments. Continued and perhaps increased commitment to sustainable macroeconomic policy is a necessary condition for success, but other challenges are certain to arise as well. In spite of the difficulties that lay ahead, it may ultimately be best to let countries develop their bond markets in a way and at a pace that is most appropriate to their country-specific context. While resorting to local-currency denominated bond issues would almost surely reduce debt-raising capacity in the short run, this may not be a bad thing. Arguably, the greatest challenge facing developing countries is not how to borrow more but how to use what they borrow more effectively (Bulow, 2002).

4. Other Options for Dealing with Financial Instability

The rules and regulations that govern a country's domestic and international financial flows can have a large impact on the frequency and severity of financial crises. Accordingly, Eichengreen's challenge paper presents policy options that consider alternative institutional arrangements for a country's domestic financial system and its capital account.

4A. Re-Regulation of Domestic Financial Markets

Financial liberalization, broadly defined as the de-regulation of banking activities, is often followed by financial crises (Diaz Alejandro, 1985; Mishkin, 2003). This raises an important question. Would countries be better off under re-regulation, that is, without financial

liberalization? Eichengreen tells us that in order to answer this question we must recognize that financial liberalization brings benefits as well as costs.

The gross costs of re-regulating domestic financial markets are equal to the negative of the benefits of financial liberalization. Liberalizing domestic financial markets permits banks and non-bank financial institutions to engage in a wider range of intermediation activities than in a non-liberalized environment. Greater financial intermediation leads to greater financial depth (McKinnon, 1973; Shaw, 1973). There is also a great deal of evidence that financial depth and GDP growth are positively correlated (Levine, 1997; Levine and Zervos, 1998;). For instance, the paper cites a study, which shows that increasing the ratio of domestic credit to GDP from 0.25 to 0.55 raises growth by approximately 1 percentage point per annum. If re-regulation erases such gains in financial depth, then it follows that re-regulation could reduce GDP growth by as much as 1 percentage point per annum.

The gross benefits of re-regulation, on the other hand, are simply equal to the negative of the gross costs of a banking crisis. Recall from Section 1 of this discussion, that Eichengreen's estimated cost of a banking crisis is 0.3 percentage points of GDP growth per year. Hence, the net effect of re-regulation is to reduce GDP growth by an average of 0.7 percentage points per annum.

4B. Reimposition of Capital Controls

Just as some authors have argued that financial liberalization causes banking crises, others have argued that capital account liberalizations can cause currency crises (Bhagwati, 1998). Would abolishing free capital flows solve the problem? Eichengreen addresses this question by applying the same logic he uses to compute the net benefits of re-regulating financial

markets.

The gross benefits of reimposing capital controls are the negative of the cost of currency crises. The cost of a currency crisis is 0.7 percentage points of GDP growth per annum. If we accept Eichengreen's assumption that imposing capital controls eliminates currency crises but not banking crises, then the maximum benefit of imposing capital controls is 0.7 percent of GDP per annum.

Reimposing capital controls has costs for similar reasons that re-regulating domestic banks have costs. Capital account liberalization tends to reduce the cost of capital, increase financial deepening, and raise economic growth in the liberalizing countries.² Reimposing controls might reduce financial depth and economic growth along with it. Marrying the literature on capital account liberalization and financial depth with the literature on financial depth and growth, the paper concludes that reimposing capital controls would reduce GDP growth by about 1 percentage point per annum. Hence the net effect of reimposing capital controls would be to reduce economic growth by about 0.3 percentage points of GDP growth per annum.

4C. Discussion

Given Eichengreen's framing of the policy choices, his numbers make sense. If we must choose either completely unregulated financial markets or financial repression, then unregulated markets are preferable. Similarly, unfettered international capital flows are preferable to none at all. My objection is that the framing of the choices is too stark. Unlike Odysseus, we do not have to choose either Scylla or Charybdis—safe passage in between is a viable option.

For example, sound banking supervision need not stunt financial development. A long-

² See Henry (2000a, b, 2003) and the references therein.

run increase in the ratio of domestic credit to GDP that represents genuine financial deepening is probably good for growth. A short-run spike in domestic credit in the immediate aftermath of financial liberalization may not be as auspicious (Krueger, 2000). Similarly, there may be sensible policy options that allow capital to flow largely unencumbered but keep a watchful eye on the buildup of short-term dollar denominated debt (Fischer, 2003; Summers, 2000). If the dollar lending goes primarily to firms whose revenues are in local currency, then it may be sowing the seeds of a future crisis rather than laying a foundation for higher long-run growth rates. On the other hand, if the lending goes to firms whose revenues are in dollars, the situation is less worrisome.

History tells us that the presence of a fixed exchange rate tends to raise the probability that the bad scenario will prevail. When the exchange rate is fixed, borrowing in dollars is typically cheaper than borrowing in local currency—so long as the fixed exchange rate holds. Consequently, firms and banks may be tempted to gamble, all the while failing to internalize the externalities that their individual and collective behavior will impose on the rest of the economy if and when a devaluation occurs (Akerlof and Romer, 1994).

4D. The Policy Options Are Complementary

If one accepts the argument that a more nuanced policy towards the domestic financial system and capital account can yield positive net benefits, then the largest welfare gains might come from a policy option that combines elements of proposals (1), (2), and (4). In order to provide adequate supervision and prudential oversight of their financial systems, many developing countries will require a significant increase in the number of people sufficiently skilled to perform such duties (Krueger, 2000). At the margin, money spent to help countries train and retain such individuals might yield greater long-run benefits than implementing a

policy that tries only to circumvent the currency mismatch problem without addressing the more fundamental causes of financial instability.

Other institutional changes that developing countries can undertake themselves include the following. (1) Fiscal reform: Governments should run countercyclical fiscal policy—surpluses during booms and deficits during downturns. At present, we see governments doing exactly the opposite (Williamson, 2003). (2) Exchange Rate Reform: Fixed exchange rates have been the impetus for and the exacerbating factor in a number of recent crises. Adopting a more flexible exchange rate policy might help reduce countries' vulnerability (Krueger, 2000; Fischer, 2003). (3) Address the Debt Bias: Financial flows to developing countries are biased to debt over equity. Developing countries can begin to reduce the internal bias in favor of debt financing by altering the institutions that skew incentives in that direction—permitting greater foreign investment in portfolio equity while simultaneously increasing domestic protection of minority shareholders' rights would be a good start (Henry and Lorentzen, 2003; LaPorta, Lopez-de-Silanes, Shleifer and Vishny, 1997, 1998). G-7 countries can begin to reduce the external bias in favor of debt by altering the incentives in their legal systems that drive developed country lenders toward debt and away from over equity (Dobson and Huffbauer 2001; Krueger, 2000; Obstfeld, 1998; Rogoff, 1999).

Although institution building is never easy, I am more optimistic than the challenge paper. Its primary argument against institution building as a strategy for reducing financial instability is that the process would take too long. But all proposals would take time and efforts to build stronger institutions would focus attention on the fundamental causes of instability unrelated to currency mismatches per se.

5. Conclusion

The financial crises of the 1990s were spectacular events, ostensible signals of the evils of globalization writ large. Yet nearly a century of evidence suggests that globalization, worldwide trade in goods and capital, is the surest means of raising living standards over long periods of time. In recognition of this evidence, countries all over the world—rich and poor alike—have been reforming their economies in an attempt to reap the benefits of globalization. No one set of policies is right for all countries, and almost two decades of reform have delivered less than stellar results (Rodrik 2003a, b, McMillan, 2004).

Nevertheless, there are far fewer examples of countries that have built successful economies by eschewing markets and closing themselves off from international trade in goods and capital than there are of the other kind (Fischer, 2003). Reforms can work when they are designed in a country-specific context and the domestic political system gives them a chance to work. When financial markets break down, they disrupt societies and weaken popular support for changes that have the power to raise long-run living standards. That in the end may be the greatest cost of financial crises.

References

- Akerlof, George and Paul M. Romer (1993). "Looting: The Economic Underworld of Bankruptcy for Profit" *Brookings Papers on Economic Activity* 2, 1-74.
- Bhagwati, Jagdish (1998). "The Capital Myth," *Foreign Affairs*, May/June, pp. 7-12.
- Bordo, Michael, Barry Eichengreen, Daniela Klingebiel and Soledad Maria Martinez Peria (2001). "Is the Crisis Problem Growing More Severe?" *Economic Policy*, 32: 51-82.
- Bulow, Jeremy (2002). "First World Governments and Third World Debt." *Brookings Papers on Economic Activity*, 1: 229-55.
- Del Valle, Clemente and Piero Ugolini (2003). "The Development of Domestic Markets for Government Bonds" in Robert E. Litan and M. Pomerleano, and V. Sundararajan eds. *The Future of Domestic Capital Markets in Developing Countries*, Brookings Press, 2003.
- Diaz-Alejandro, Carlos F. (1985). "Goodbye Financial Repression Hello Financial Crash," *Journal of Development Economics*, 19: 1-24.
- Dobson, Wendy and Gary Clyde Hufbauer (2001). *World Capital Markets: Challenge to the G-10*. Institute for International Economics: Washington.
- Eichengreen, Barry and Ricardo Hausmann (2003). "Original Sin: The Road to Redemption," in Barry Eichengreen and Ricardo Hausmann (eds) *Other People's Money: Debt Denomination and Financial Instability in Emerging Market Economies*, Chicago: University of Chicago Press.
- Fischer, Stanley (2003). "Globalization and Its Challenges," *American Economic Review* 93 (2): 1-30.
- Henry, Peter Blair (2003). "Capital Account Liberalization, The Cost of Capital and Economic Growth" *American Economic Review* 93 (2): 91-96.
- Henry, Peter Blair (2000a). "Do Stock Market Liberalizations Cause Investment Booms?" *Journal of Financial Economics*, 58 (1-2): 301-334.
- Henry, Peter Blair (2000b). "Stock Market Liberalization, Economic Reform, and Emerging Market Equity Prices," *Journal of Finance*, 55 (2): 529-64.
- Henry Peter Blair and Peter L. Lorentzen (2003). "Domestic Capital Market Reform and Access to Global Financial Markets: Making Markets Work" in Robert E. Litan and M. Pomerleano, and V. Sundararajan eds. *The Future of Domestic Capital Markets in Developing Countries*, Brookings Press, 2003.

- Krueger, Anne O. (2000). "Conflicting Demands on the International Monetary Fund" *American Economic Review* 90 (2): 38-42
- LaPorta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer and Robert Vishny (1997). Legal Determinants of External Finance, *Journal of Finance*, 52, pp. 1131-1150.
- LaPorta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer and Robert Vishny (1998) *Journal of Political Economy*, Vol. 106, pp. 1113-1155
- Levine, Ross (1997). "Financial Development and Growth: Views and Agenda" *Journal of Economic Literature*, 35, 2, pp. 688-726.
- Levine, Ross and Sara Zervos (1998). "Stock Markets, Banks, and Economic Growth," *American Economic Review* 88 (3), 537-558.
- McMillan, John (2003). "Market Design: The Policy Uses of Theory," *American Economic Review*: 93 (2) 139-44
- McMillan, John (2004)"Avoid Hubris: And Other Lessons for Reformers," *Finance and Development*, Forthcoming.
- McKinnon, Ronald I. 1973. *Money and Capital in Economic Development*. Washington, D.C.Brookings Institution.
- Mishkin, Frederic S. (2003). "Financial Policies and the Prevention of Financial Crises in Emerging Market Countries," in Martin Feldstein, ed., *Economic and Financial Crises in Emerging Market Countries* (University of Chicago Press: Chicago): 93-130.
- Obstfeld, Maurice (1998). "The Global Capital Market: Benefactor or Menace?" *Journal of Economic Perspectives*, Vol. 12, No.4, pp. 9-30.
- Rajan, Raghuram (2004). "How Useful Are Clever Solutions?" *Finance and Development*, 56-57.
- Reinhart, Carmen M., Kenneth S. Rogoff, and Miguel A. Savastano (2003). "Debt Intolerance" *Brookings Papers on Economic Activity* 1, 1-62.
- Reinhart, Carmen M. and Kenneth S. Rogoff (2004). "Serial Default and the "Paradox" of Rich to Poor Capital Flows" *American Economic Review*, 94 (2) :
- Rodrik, Dani (2003a). "What Do We Learn From Country Narratives?" in Dani Rodrik, ed. *In Search of Prosperity*. Princeton University Press.
- Rodrik, Dani (2003b). "Growth Strategies" NBER Working Paper No. 10050.
- Rogoff, Kenneth (1999). "International Institutions for Reducing Global Financial

- Instability” *Journal of Economic Perspectives*, Vol. 13, No. 4, pp.21-42.
- Rogoff, Kenneth (2003). “Globalization and Global Disinflation” Federal Reserve Bank of Kansas City, 88(4), 45-81.
- Shaw, Edward S. 1973. *Financial Deepening in Economic Development*. New York: Oxford University Press.
- Shleifer, Andrei (2003). “Will The Sovereign Debt Market Survive?” *American Economic Review*, 85 (2): 85-90.
- Stulz, René M. (1999). "International Portfolio Flows and Security Markets" in M. Feldstein, ed. *International Capital Flows*. University of Chicago Press, 257-293.
- Summers, Lawrence (2000). “International Financial Crises: Causes, Prevention, and Cures” *American Economic Review* 90 (2): 1-16.
- Turner, Philip (2003). “Bond Market Development: What Are the Policy Issues?” in Robert E. Litan and M. Pomerleano, and V. Sundararajan eds. *The Future of Domestic Capital Markets in Developing Countries*, Washington: Brookings Press.
- Williamson, John (2003a). “Domestic Versus Global Responsibilities for Curbing Financial Instability in Latin America,” Speech Delivered to The Inter American Development Bank, July 200: <http://www.iadb.org/res/publications/pubfiles/pubS-174.pdf>.
- Williamson, John (2003b). “Comments on “Debt Intolerance” Brookings Papers on Economic Activity, 1: 66-70
- Zingales, Luigi (2003). Commentary on “More on Finance and Growth: More Finance More Growth?” *Federal Reserve Bank of St. Louis Review*, 85(4): 47-52.