

Distinguished Guest Lecture

Beggar-Thyself versus Beggar-Thy-Neighbor Policies: The Dangers of Intellectual Incoherence in Addressing the Global Financial Crisis

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1. Introduction

The global financial crisis that began in Thailand on July 2, 1997, has now grown far larger than almost anyone expected at the time. What many expected to be no more than a slight blip in the unrelenting advance of international capital markets has instead become the gravest threat to the stability of the world's market economy since the Great Depression. As recently as three months after the Thai crisis, the IMF at its annual meetings called for an expansion of its charter to allow it to promote capital market liberalization. In his address to that meeting, to be sure, the IMF's managing director was careful to note that important precursors—such as strong financial markets—had to be put into place before full capital market liberalization could take place.¹ Today, 16 months into the crisis, there is a wider recognition of just how important those precursors are and of how few developing countries (and perhaps developed countries as well) satisfy those preconditions. Furthermore, many now worry that with or without those preconditions in place, short-term capital flows may be so volatile as to contribute greatly to international economic instability and that indeed such flows might be at the root of the current crisis. Although the risks of these short-term capital flows are now more apparent, there is scant evidence that these flows bring benefits that are commensurate with those risks.²

Several factors determine how great a risk the volatility of short-term capital poses for a given country. One factor is the structure of the economy, including the effectiveness of automatic stabilizers; different structures may either dampen or even amplify the shock to an econ-

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¹ See Camdessus (1997).

² See Rodrik (1998).

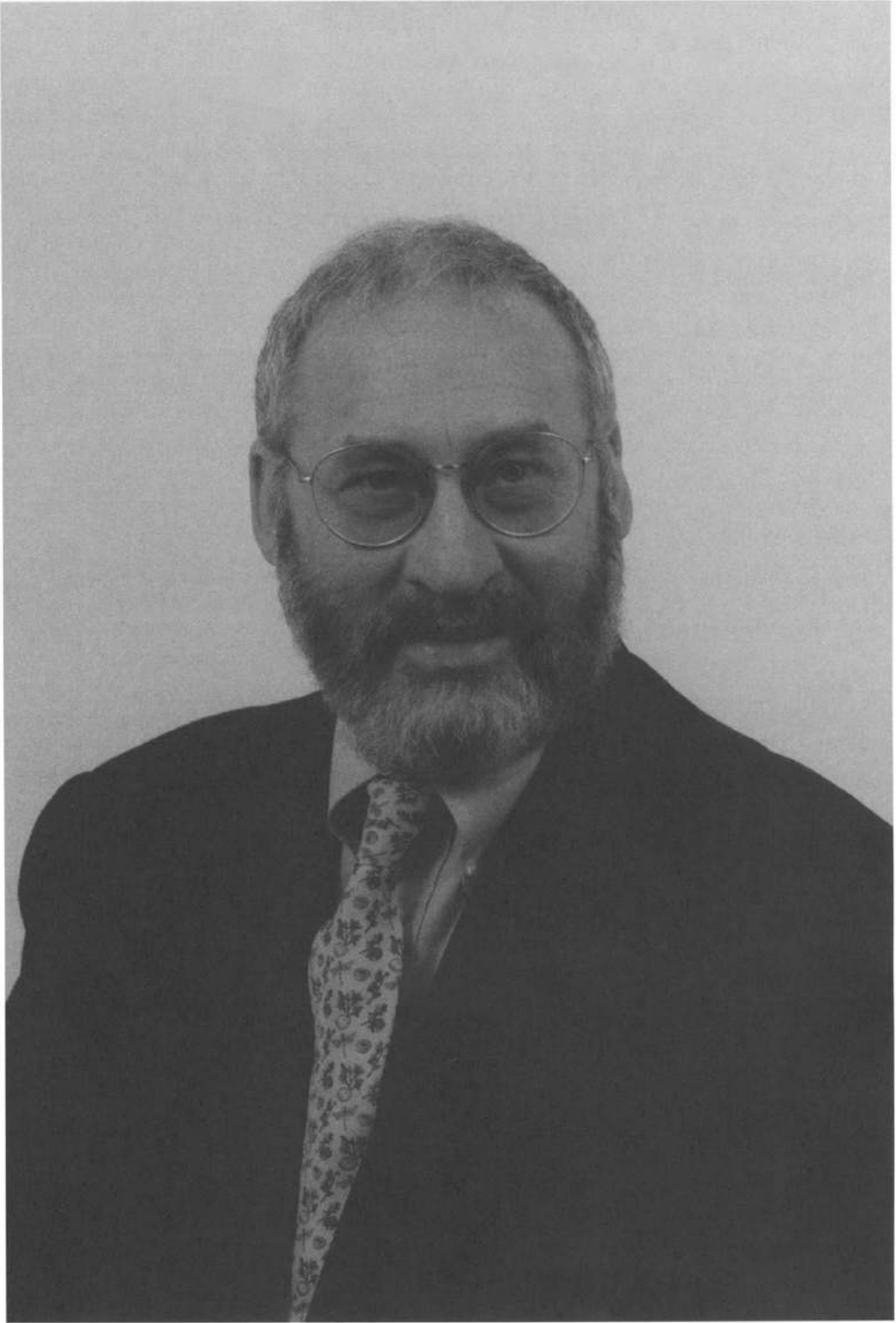
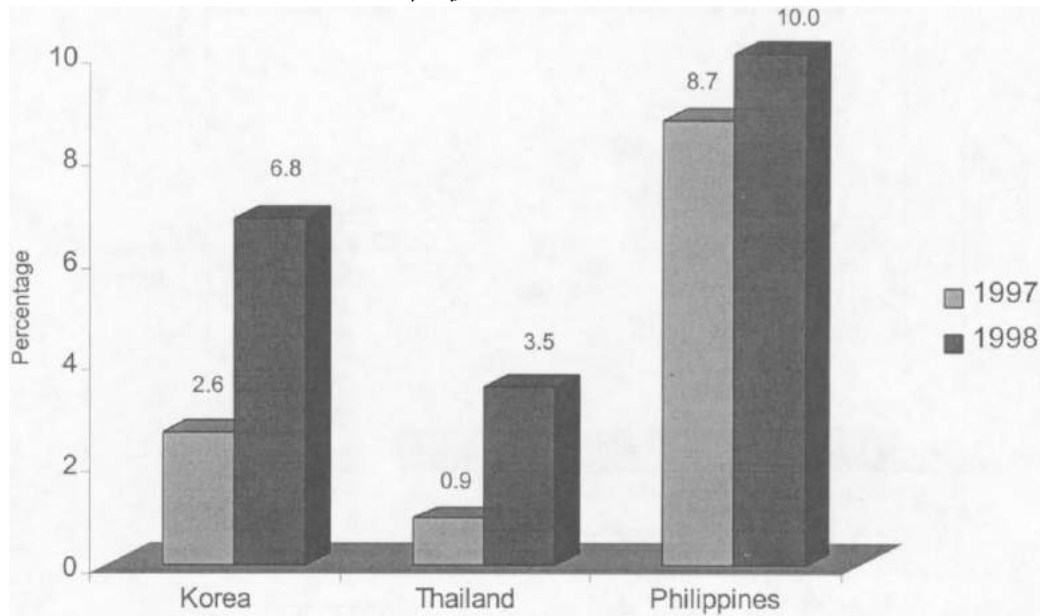


Chart 1: Unemployment in Crisis Countries

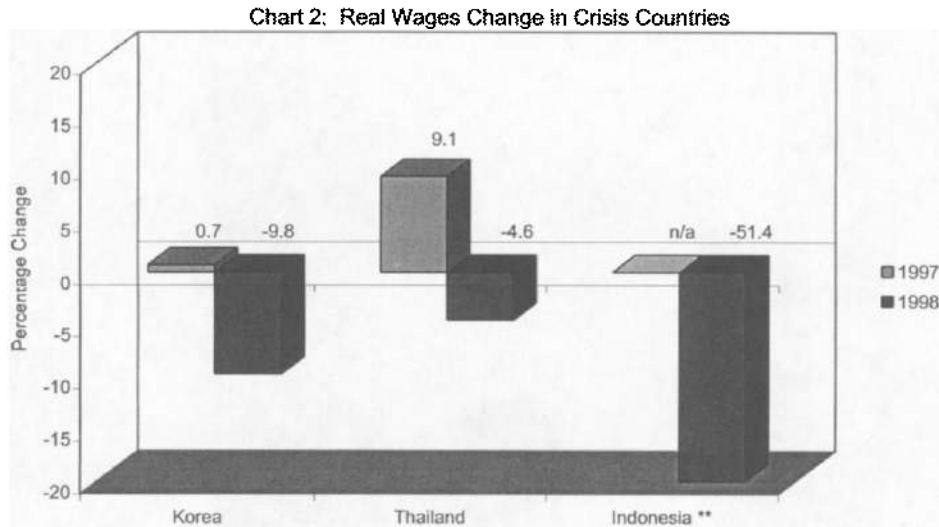


Source: World Bank Development Data Group, Datastream, and Bloomberg.

omy arising, say, from a sudden change in investor sentiment. A second factor is the efficacy of the discretionary policy responses to the economic fluctuations set off by the shocks. A third is the risk absorption/transfer mechanisms within society, which determine how those risks are distributed and thus the welfare losses that may be associated with them. When we measure the East Asian crisis economies against this list, we see that they had few automatic stabilizers and lacked both effective market-based risk-distribution mechanisms and publicly provided safety nets. As a result, the welfare losses, especially to workers and small businesses, have been enormous, as unemployment has soared and real wages have plummeted.³ Given these risks, it was all the more important that the third factor I mentioned—discretionary policy responses—be used to cushion the economic downturn. There is now a growing consensus, however, that the actual crisis-response measures exacerbated the downturn: At least in retrospect, the monetary and fiscal constraints imposed after the onset of the crisis were excessively contractionary. More problematic is whether those policies were misguided from an *ex ante* perspective. I argue in this paper that the answer to that question is almost certainly yes. But my real objective here is not to assign blame but to try to understand why the mistakes were made. For if we are to avoid similar catastrophes in the future, we must understand past mistakes. Most of my focus will be on failures of economic analysis—the failures in forecasting, in economic modeling, and, most important, in the policy framework.

In assessing this policy framework, we need to ask, What are our objectives? How do we

³ Even in more advanced countries, the burden of economic downturns is highly concentrated, and risk distribution mechanisms are relatively ineffective in sharing that burden (see Furman and Stiglitz 1998b; Charts 1 and 2).



** The statistics for Indonesia are nominal wages deflated by the CPI.

Source: World Bank Development Data Group, Economist Intelligence Unit, Bloomberg and Datastream.

evaluate success? Should we be focusing on intermediate variables, such as exchange rates or inflation rates, or on variables that should be our ultimate concern—those that measure the well-being of the people in the countries, such as GDP, unemployment, poverty rates, and measures of health status and education? Did the framework employed by decision makers help contain the contagion, or did it exacerbate the economic downturn in the crisis countries and help it spread to other countries? And if there were adverse effects, should they have been anticipated, and are they likely to occur if this same framework is applied elsewhere? In some cases, poor outcomes stemmed from difficult judgment calls in which reasonable people could differ in their estimates of the probabilities of various outcomes. In addition, there was inadequate research applicable to the situation at hand. But even here, I argue that a more formal decision-theoretic framework could well have led to different choices—and better outcomes.

Economists have increasingly recognized the importance of political economy: Policy makers and those who most influence their decisions often have interests that differ markedly from those of the citizens whom governments are supposed to serve. A focus on political economy, on incentives, forces one to ask some hard and disturbing questions: Did various participants in the “bailouts” and the other actions related to various stages of the crisis—not only the governments of the affected countries but also governments of the countries bringing assistance and the international financial institutions—have incentives that, if not leading to the misguided decisions, at least made such decisions more likely? Would different decisions have been made if the decision-making process—including the participants in that process—had been different? I conclude with some speculative notes on these matters.⁴

⁴ For a fuller discussion, see Stiglitz (1998, 1999).

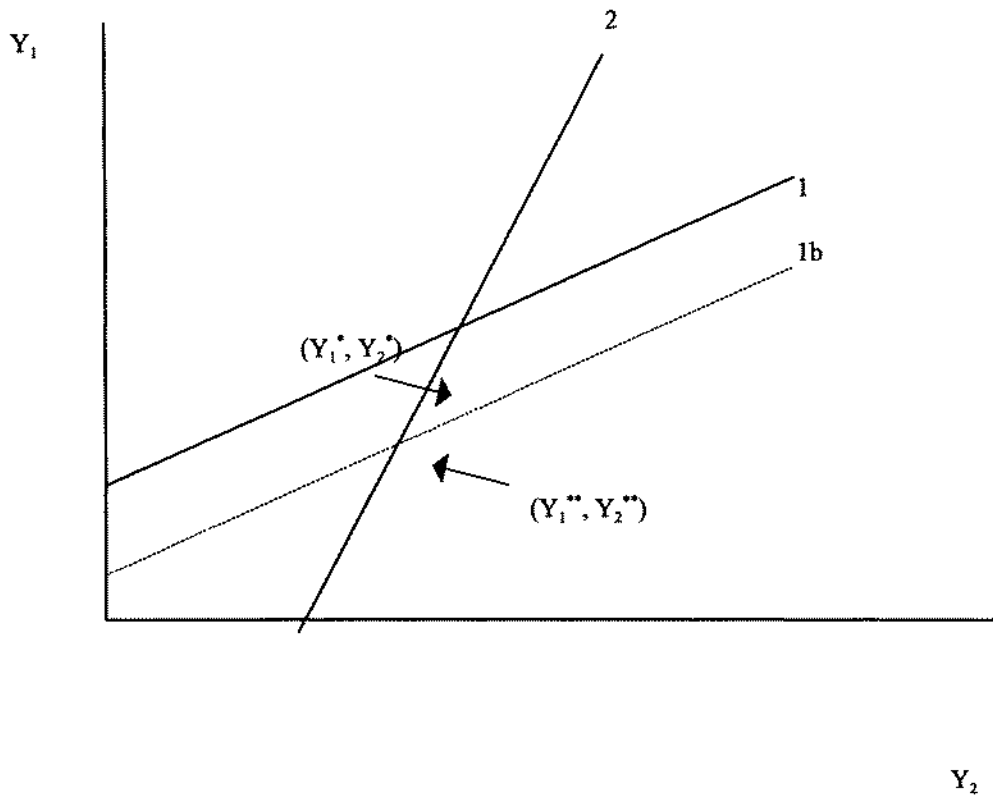


Figure 1. International Equilibrium in a Two-Country Model. Each country's income depends on that of the other as a result of international trade. An economic downturn in one country (the downward shift in the first country's reaction function) leads to a decrease in the income of both countries.

2. Beggar-Thy-Neighbor Policies

The economic architecture that emerged after World War II—GATT and the Bretton Woods Institutions—was designed to reduce the likelihood of a repetition of the Great Depression. The Depression, from which the Western economies seemed to have been rescued in part by the war itself, was of course fresh in the minds of their leaders.⁵ As was widely recognized at the time, one cause of that global Depression was the beggar-thy-neighbor policies that the countries pursued. The effects of such policies are illustrated in Figure 1, which depicts a standard Keynesian model for a two-country world where the first country's output is a function of investment (I), government expenditure (G), and exports (X) (which in turn depends on the other country's imports and thus on its income) and where s is the saving rate, t is the tax rate, and m is the marginal propensity to import.⁶

⁵ For a recent reminder of the founders' intent, see Cassidy (1998).

⁶ We assume, for simplicity, that $C = (1 - s)Y^d$, $M = mY^d$, I and G are exogenous, C is consumption, M is imports, and Y^d is disposable income $= Y(1 - t)$.

$$\begin{aligned} Y &= (1 - s)(1 - t)Y + I + G + X - m(1 - t)Y \\ &= [I + G + X]/[1 - (1 - s - m)(1 - t)]. \end{aligned}$$

But one country's exports are the other country's imports, yielding the text equation.

$$Y_1 = [I_1 + G_1 + m_2 Y_2 (1 - t_2)] / [1 - (1 - s_1 + m_1)(1 - t_1)]. \quad (1)$$

The international equilibrium occurs at the point $\{Y_{1^*}, Y_{2^*}\}$, where the two reaction functions intersect.⁷ The “story” of the Great Depression is illustrated then by, say, a marked decline in investment (caused by “adverse animal spirits”), together with a failure of monetary and fiscal policy to offset its effects. (See Figure 1; downward shifts in the consumption function, which would exacerbate the problem, are ignored in this simplified exposition.) The new equilibrium is $\{Y_{1^{**}}, Y_{2^{**}}\}$, but policy makers in country 1 view their economy’s low level of equilibrium income as unsatisfactory. Rather than stimulating its own economy, however, country 1 employs beggar-thy-neighbor policies of import restrictions, which lower m_1 to m_1' ; Y_1 increases, but at the expense of a decrease in Y_2 :

$$Y_{1^{***}} > Y_{1^{**}} \quad (2a)$$

but

$$Y_{2^{***}} < Y_{2^{**}} \quad (2b)$$

Country 2 reacts in kind, lowering its m_2 , with the resulting shifts in the two reaction functions depicted in Figure 2. The new equilibrium is now unambiguously inferior to the original equilibrium: Income in both countries has fallen (and their real income has fallen even more than this picture describes because of the distortions in consumption profiles).

Competitive Devaluations

Countries employed another, seemingly only slightly less pernicious beggar-thy-neighbor policy during the Great Depression. That policy was competitive devaluation: The first country did not raise tariffs but lowered its exchange rate, making the other country’s goods more expensive. At first blush, the effects would appear to be the same because the import coefficients of both countries fall as a result. But there is a fundamental difference between competitive devaluations and dueling tariff increases. Under the gold standard, when country 2 retaliates against country 1 by devaluing its own currency, the exchange rate returns to its original value, and accordingly so do the import coefficients (see Figure 3). But the increased value of gold means that the country is (or feels) wealthier, and the wealth effect leads to increased consumption and thereby a lower savings rate. Thus, competitive devaluations in this simple model lead to increases in both countries’ incomes. Although intended as beggar-thy-neighbor policies, the devaluations in fact serve to restore global prosperity.

There is one important caveat to this story. The process is typically not well coordi-

⁷ We can solve the two equations simultaneously to yield equilibrium income

$$Y_{1^*} = (a_1 b_2 + m_2 a_2) / (b_1 b_2 - m_2 m_1)$$

(and similarly for Y_2), where

$$a_i = I_i + G_i \quad \text{and}$$

$$b_i = 1 - (1 - s_i - m_i)(1 - t_i).$$

Note that in the case of symmetry, the equilibrium income level Y of each country is given by

$$Y^* = (ab + ma) / (b^2 - m^2) = a / (b - m),$$

implying that a reduction in m leads to a reduction in Y^* .

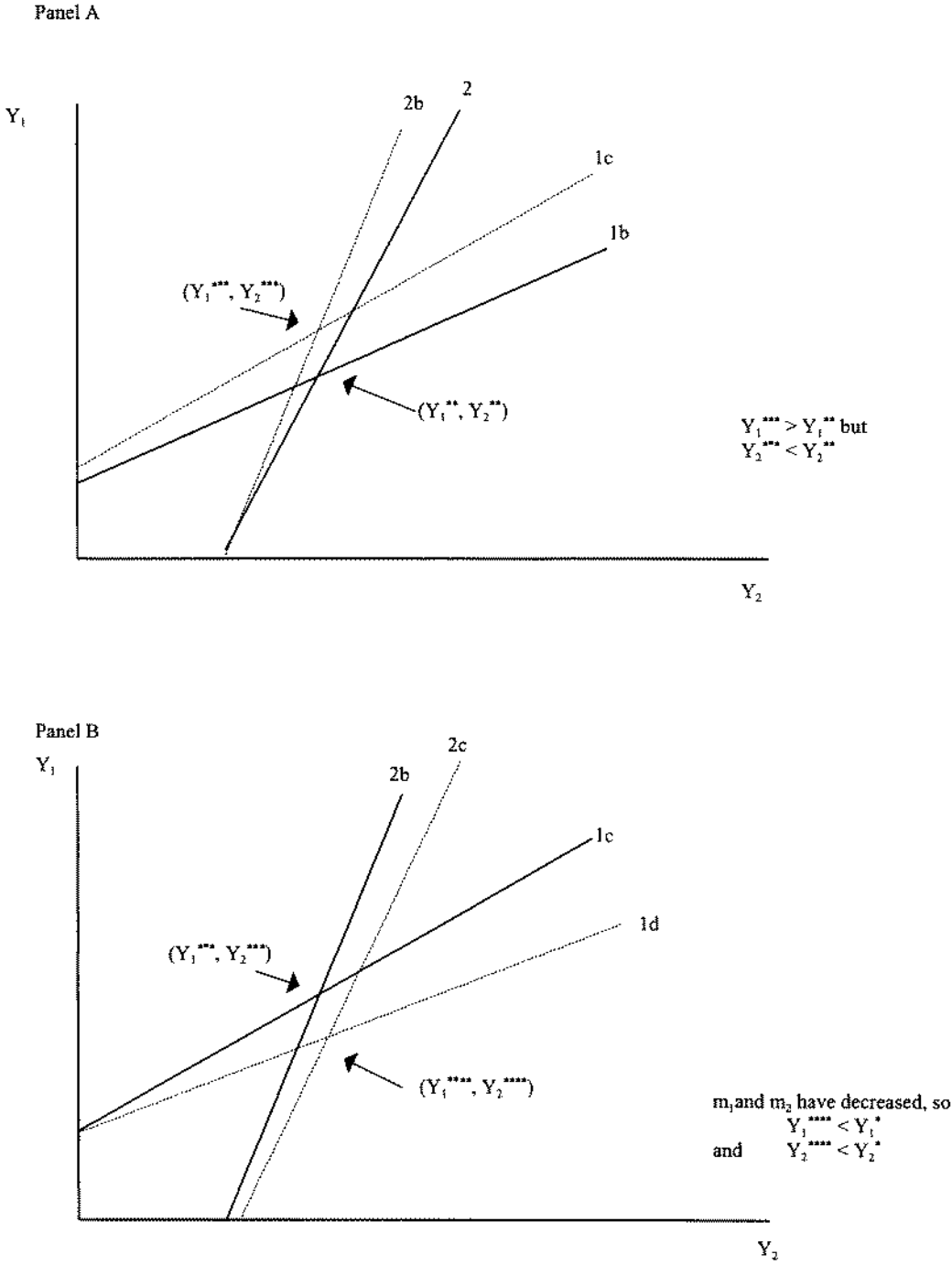
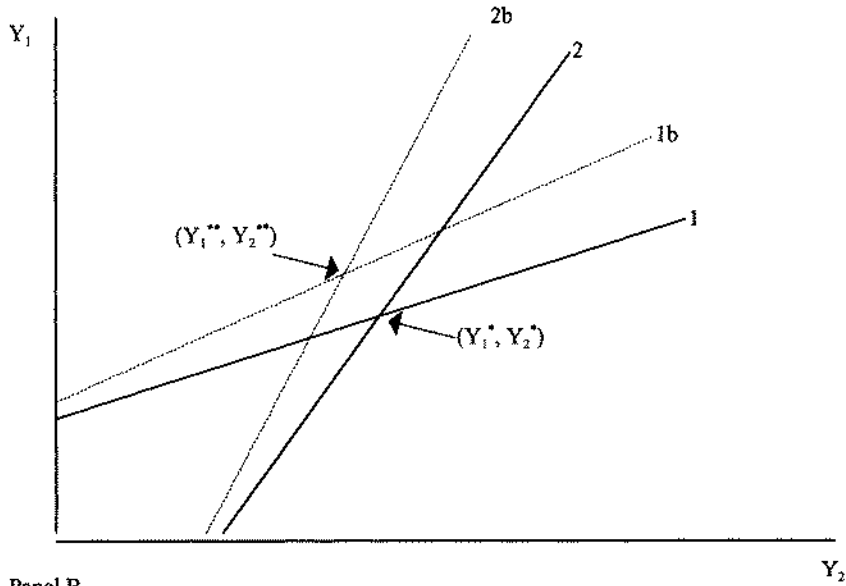


Figure 2. Beggar-Thy-Neighbor Policies. (A) The government of the first country, rather than stimulating its output through expansionary monetary and fiscal policies, contracts imports (m_1 is reduced). This lowers country 2's income. (B) But country 2 responds in kind (its reaction function shifts to the right). The new international equilibrium entails a lower level of output in both countries.

Panel A



Panel B

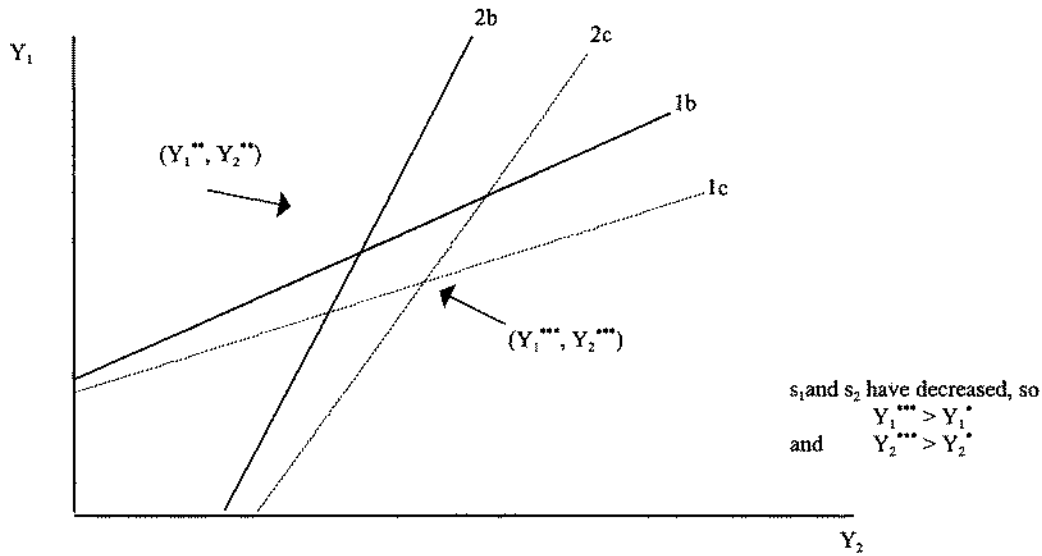


Figure 3. Competitive Devaluations under the Gold Standard. (A) The government of the first country devalues its currency. This contracts imports and expands exports (m_1 is reduced and m_2 is increased), simultaneously shifting both reaction functions and leading its income to increase but that of the other country to decrease. (B) When the other country matches the devaluation, the import coefficients return to their original value, but because of the real balance effect, each country's reaction function has shifted out relative to its original position: Equilibrium output has actually increased in both countries.

nated, and marked changes in relative prices may result from the devaluations. These changes in relative prices can cause marked disturbances to the economy—redistributions that affect both aggregate demand and supply, as I discuss later. But the lesson that emerges here is that if attempts at competitive devaluations have adverse effects, this is largely due

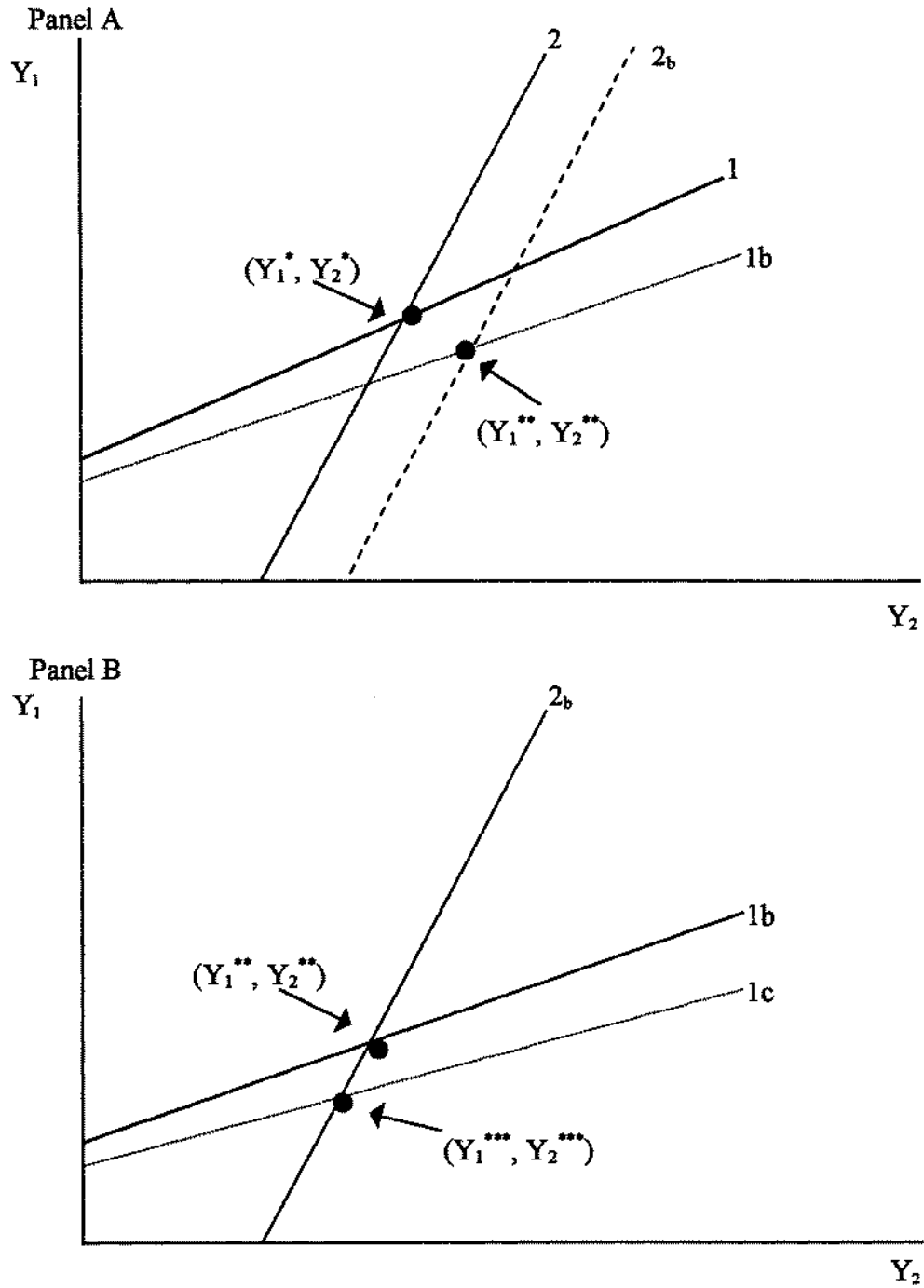


Figure 4. Beggar-thyself Policies. (A) An initial shift in, say, preferences leads to a balance-of-payments deficit by country 1. This results in a crisis. (B) The country is forced to eliminate its deficit by contractionary monetary and fiscal policy, shifting its reaction curve further downward. Both countries are worse off.

to the transition process, the dynamics of which are not well captured in the equilibrium analysis.

A General Equilibrium Perspective

Indeed, standard competitive equilibrium theory has a great deal of trouble dealing with many of the issues that are central to recent policy debates. In a world of perfect wage and price flexibility, exchange rates do not matter: A change in the exchange rate could or should be immediately offset by corresponding changes in wages and prices. Exchange-rate policies matter because of certain market imperfections (relative to this neoclassical ideal). Specifically, economies may have wage and price rigidities, and contractual arrangements (not fully indexed to the exchange rate) may be denominated in local currencies such that there are real consequences to the changes in wages and prices.

Two traditions have focused on these two sets of imperfections. One has emphasized the failure of wages and prices to adjust,⁸ the other the consequences of the adjustments given the imperfections of indexing.⁹ Improvements on one score may make matters worse on the other. For example, there was in fact considerable wage and price flexibility during the Great Depression, with prices falling in the United States by more than a third. But large adjustments such as this increase the consequences of the contractual rigidities, as debtors have to repay lenders more in real terms than they had expected, contributing to bankruptcies and the associated economic disruption and thus shifting the aggregate supply curve to the left. This shift is exacerbated by several other factors. First, the bankruptcies sharply increase the share of non-performing loans, weakening the banking system and leading to a credit contraction. Second, because most firms do not produce to order, production is a risky decision. Thus, given the imperfections in risk markets, the reduced net worth of firms—resulting from the increased real value of their debt payments—lowers their ability and willingness to bear risk and thus reduces production.

Economists like to have a neat separation between demand and supply factors, but in this scenario the two are intimately intertwined. The same factors that induce lower production lead to lower investment in plant and equipment, less willingness to hire new laborers, and a decreased willingness to hold inventories. Thus, at the same time that the aggregate supply curve is shifting to the left, so is the aggregate demand curve. And the resulting decrease in production leads to further bankruptcies, reinforcing the downward vicious cycle.¹⁰

To formulate sensible policies, policy makers must have a clear understanding of these alternative explanations for why exchange rate policies matter. Using a neoclassical model is of little help because it is only because of the deviations from that model that the exchange rate matters at all. To be sure, “practical” men may look at reduced-form relations—at the

⁸ This tradition grew perhaps out of Hicks’s simplification of Keynes’s model and has been at the center of the fixed (or sticky) price literature attempting to explain why economies seem to differ so systematically from the neoclassical ideal. For discussion, see Hicks (1936).

⁹ This tradition dates back to Fisher’s theory of debt deflation and has been revived more recently by Greenwald and Stiglitz in a series of papers (see Fisher 1933; Greenwald and Stiglitz 1988, 1993; Greenwald, 1999; Stiglitz 1989).

¹⁰ The importance of the aggregate supply effect is brought home forcefully by the example of a small, open economy. Presumably, such an economy should face in effect a horizontal demand curve for its product, and aggregate demand should never be a problem (see Greenwald 1999). Of course, in reality even small countries face downward-sloping demand curves for their products—underlining the importance of imperfect competition, another gap in the standard neoclassical model—but the aggregate supply effects are clearly central, as has since become apparent in East Asia.

positive and negative consequences of alternative policies—and try to infer from past experiences what policies are most likely to be beneficial in the future. But without a clear sense of the underlying structures, they are not likely to notice the underlying features of the economy that might cause a policy that once was successful to fail miserably in different circumstances.

3. Worse than Beggar-Thy-Neighbor Policies: Beggar Thyself

As insidious as beggar-thy-neighbor policies are, there is something even worse: the beggar-thyself policies that seem to have become part of orthodox crisis response. A country becomes a “problem” in the international arena when it (or private firms within that country) cannot meet its foreign debt obligations, at least without undue depreciations of its currency. Before I discuss the typical policy response to this problem, it is worth pausing to note the ambiguities in both parts of this sentence. First, in virtually all cases, the net worth of a country far exceeds its foreign obligations; what is typically meant, in the case of sovereign debt, by “cannot meet its debt obligations” is that it cannot do so without raising tax levels to an “unacceptably” high level.¹¹ Similarly, what is meant by “undue depreciation” is ambiguous. In some cases, the concern is apparently that the exchange rate would fall below an equilibrium level (a concern that betrays a lack of confidence in market processes). In other cases, policy makers are aware of the large distributive (and thus real) consequences of large changes in exchange rates, even if such changes are “equilibrium.”

Consider now the typical recipe for a country facing such a crisis and asking for a bailout. (Clearly, if the country simply let its exchange rate float, no additional foreign exchange would be required.) As a condition for the bailout, the country agrees to redress its balance-of-payments deficit, but it is proscribed from imposing tariffs or engaging in (further) devaluations to achieve this goal. These constraints leave just one instrument (in the short run) at its disposal: reducing income in order to reduce the demand for imports. The policy framework is thus turned on its head: The economy is forced into a recession in order to restore “confidence” through an elimination (or reduction) of a balance-of-payments deficit.¹²

The implications for the world equilibrium are both clear and disastrous. Consider an initial situation such as the one depicted in Figure 1 and assume that the initial values correspond to a full employment situation. Country 1 experiences an adverse shock that leads to rising imports and an adverse balance of payments. Here I simplify by assuming that there is a sudden shift in preferences toward imported goods, so that m_1 increases, shifting down country 1’s reaction function, shifting up country 2’s function, and leading to a lower level of equilibrium income for country 1.¹³ (The effects on country 2 are ambiguous: The first-round effect—an increase in exports—is clearly positive, but the equilibrium effects, taking into account the decline in

¹¹ Occasionally, as perhaps in Russia today, the fiscal competencies of the state may limit the amount of revenues the government can actually extract from the private sector.

¹² In principle, there are alternative mechanisms available: A country could so improve its productive efficiency and lower its prices that exports increase without a devaluation of its currency. But typically, such productivity adjustments take far longer than the “quick” responses demanded by the crisis.

¹³ In practice, of course, many shocks affecting net trade flows are external to the country (see, e.g., Calvo, Leiderman, and Reinhart 1993). For example, in the recent crisis, countries such as Chile and Russia have been strongly adversely affected by falling commodity prices. And many countries have been adversely affected by the increases in the interest rates they have to pay on outstanding debt, increases related to the rise in risk premiums for emerging-market debt in general, and not to events in their own country.

the first country's income, are indeterminate. For plausible values of the parameters, however, country 2's equilibrium output is increased.)

Now assume that, for some reason—perhaps unrelated to this particular shift in preferences—country 1 is called on to eliminate its trade deficit and is told not to impose tariffs or to devalue. Given that country 2's imports are not under country 1's control, the only way for country 1 to achieve trade balance is to reduce its income (Y_1) through contractionary monetary or fiscal policy. Assume that it does so by cutting G . Its reaction function shifts further downward, leading to lower levels of income for both countries. To restore its balance of payments (perhaps viewed as necessary to maintaining its exchange rate), country 1 has engaged in what I call "beggar-thyself" rather than beggar-thy-neighbor policies. As bad as beggar-thy-neighbor policies are, beggar-thyself policies are Pareto inferior, for the reduction in imports is no less, but rather than reducing imports by diverting aggregate demand from others to oneself, beggar-thyself policies accomplish this objective by reducing global aggregate demand.

The Global Equilibrium

This becomes even more apparent once one recognizes the fundamental identity of balance-of-payments deficits: They must sum to zero. Let us switch now to the more realistic situation of our world economy with many countries. Assume, for simplicity, that one of the countries (Japan) "insists" on a balance-of-payments surplus (more accurately, the country has a high savings rate relative to its country's investment opportunities, so that domestic savings exceed investment). Assume also that another region (Europe) insists on a policy of tight monetary policy and small government deficits, such that, given its savings rates, it too has a surplus. The arithmetic means that the rest of the world must be in trade deficit. Assume now that the country with the worst deficit has a "crisis" to which it is forced to respond by cutting its trade deficit to zero. If the surplus countries refuse to reduce their surpluses, the actions of the crisis country must be reflected in an increased deficit elsewhere. The contraction of its output reduces another country's exports, worsening its trade balance. In this way, the deficit is like a hot potato, passed on from one country to another. Now there is a new country that faces a large or larger trade deficit. Assume that it too then faces a crisis (perhaps because short-term speculators decide that the country with the largest trade deficit is the most likely candidate for a devaluation).¹⁴ The international community comes forward with a rescue package, but because of worries about the threat of competitive devaluation, they again insist that the "unsustainable trade deficit" be eliminated. In the process, they force that country into a recession too, until its trade deficit is eliminated, and the hot potato is passed along.¹⁵ The result, it is apparent, is a global economic downturn.¹⁶

¹⁴ If all investors believe that other investors believe that there will be a speculative attack against the country with the largest trade deficit to GDP ratio, for example, then in equilibrium such an attack may take place. It pays each investor to try to pull his money out of the country before others do. If all investors do so, then their predictions of the unsoundness of the country are verified, even if there was nothing fundamentally wrong with the economy and even if, in the absence of the speculative attack, the trade deficit would have been sustainable. See Diamond and Dybvig (1983) for an analysis of such multiple rational expectations equilibria in the context of bank runs.

¹⁵ To be sure, the deficits of most of the affected countries, as a percentage of world GDP, are small and could in principle be absorbed through a small increase in the deficit/GDP ratios of the United States or Europe. As a practical matter, however, the reductions in income in each of the East Asian countries weakened its trade partners and thus may have contributed to the "passing along" of the crisis.

¹⁶ Note that the externality effects of these beggar-thyself policies will typically be felt more strongly by the crisis country's

This problem can be seen dramatically in our two-country example. Assume that both countries take policy measures focused around the balance of payments equilibrium, each insisting that it not have a deficit. Then the only possible equilibria are those for which

$$m_1 Y_1 = m_2 Y_2. \quad (3)$$

But, without coordinated action, any pair of incomes $\{Y_1, Y_2\}$ satisfying Equation 3 is a possible equilibrium. Assume that incomes are at one such pair, well below the full employment level for both. Then assume that country 1 decides that it would like to increase its income through stimulatory policies, but it is constrained from either imposing tariffs or devaluing its currency and is under “international” discipline to prevent its balance-of-payments situation from going into deficit. Under these strictures, it has no room to maneuver: It cannot take expansionary monetary and fiscal policies by itself. The only solution is a coordinated global expansion by which the two countries increase their incomes together.

Especially more effective than global contraction is expansion in surplus countries that have incomes below their full-employment potential. More broadly, perhaps the world community should bring as much pressure to bear on surplus countries as on deficit countries, especially when those surpluses are the result either of less-than-full-employment policies or of distortionary policies (rather than of “natural” imbalances between domestic saving and investment).

Justifying Beggar-Thyself Policies

All of this seems so self-evident that one wonders why anyone would construct a policy stance around beggar-thyself policies. Two and one-half explanations have been put forward. First, there is the worry about competitive devaluations, thought to have contributed to the global economic downturn of the 1930s and to continue to threaten the stability of the international monetary system. Second, and related, is the fear of contagion: Exchange rate instability (devaluations) is a disease that, if not halted immediately, will spread quickly from country to country. And behind all this is half an explanation: a concern that if devaluations become acceptable, crisis countries will not be able to honor their international debt obligations (denominated in foreign exchange). Default on such claims will undermine international capital flows and violate the central principle of modern capitalism: the sanctity of contracts; together, these effects will weaken the prospects for global economic prosperity (or at least the prosperity of those who derive their incomes from promoting international capital flows).

Competitive Devaluations without the Gold Standard

Earlier we saw that the view that competitive devaluations played an important role in the global crisis of the 1930s was questionable. In terms of the standard models, such devaluations helped stimulate global output. Their negative effects were associated with the adjustment pro-

trading partners (typically neighbors). In a sense, then, beggar-thyself policies are truly beggar-thy-neighbor policies, just as the trade restriction policies were. Given this effect, is it surprising that the “contagion”—the hot potato of increasing deficits—was felt first by one of Thailand’s neighbors, then by other neighbors? And is it surprising that as they all engaged in these contractionary policies, they found their exports far less responsive than might have been expected after large (30% or more) devaluations? Finally, is it surprising that as each country found itself with excess capacity, competition led to falling export prices, thus exacerbating their difficulties? And what should we expect now that the beggar-thyself policies have shifted to another continent?

cess, implying that it is not the devaluations themselves but the uncoordinated way in which they occur, combined with rigidities in the market economy, that should be the focus of concern. In any case, it is deviations from the neoclassical model that should be the focus of attention, and reliance on that model is unlikely to provide useful insights into the appropriate policy stances.

Under the regime that has prevailed since the United States suspended the gold standard in 1971, the very term “competitive devaluations” becomes questionable. Exchange rates are simply relative prices. It is not possible for all countries to lower their prices relative to one another. (To be sure, if they were all to attempt to do so, the dynamic process might give rise to disturbances of the kind I have noted here.) The East Asian devaluations were changes in prices (exchange rates) relative to the dollar (and other major currencies). It is plausible that these countries were seeking not to gain competitive advantage relative to one another but to realign their exchange rates relative to the dollar or yen.

Indeed, there is a more fundamental issue. Clearly, prior to July 2, 1997, the Thai government had been interfering in the foreign exchange market. But assume that the government discontinued direct intervention. In such a case, it is not the government that sets the exchange rate (and that engages in competitive devaluation, if that is even a meaningful concept) but rather the market. Government policies can affect the exchange rate, of course, but presumably the government should be setting those policies in a way that maintains the economy at full employment while letting the market determine prices. Indeed, policy stances (e.g., imposing high interest rates) that lead the economy into severe recessions can be thought of as interferences with the natural workings of the market, just as direct interventions in the foreign exchange market are.

Of course, one might question whether the “market” overshoots or whether, left to their own devices, market forces lead quickly to a long-run equilibrium value. But once one admits that the market may not generate the “right” price of foreign exchange, how can one be confident that the market will generate the “right” price of other assets? Is there a theorem (or empirical evidence) that market failures are limited to the foreign exchange market? Are there features of that asset (other than the persistent government interventions themselves) that inherently make market processes less prescient and less effective in foreign exchange markets than elsewhere? To my knowledge, there is no coherent argument to this effect. It is true that excessive volatility in this market may have more serious economic consequences than in other markets, and thus there may be a greater imperative for government intervention. But note again the intellectual inconsistency: The argument for further capital market liberalization is based, presumably, on the doctrine of the efficiency of markets, yet crisis-response policies clearly recognize the importance of market failure.

The fear of competitive devaluation was simply misplaced.¹⁷ It was based on a misunder-

¹⁷ Concern about competitive devaluations in the Asian crisis is reflected in such statements as the following: “[E]xcessive devaluations would help the crisis spread worldwide. The IMF was set up in part to prevent a repetition of that disastrous syndrome and we will not ignore the systemic implications of actions taken under programmes we support” (Fischer 1997b). But the questions being raised in this paper are, Were the systemic implications of the aggregate demand reductions ignored, and could those effects be every bit as serious as those associated with exchange rate devaluations? How do we know that the exchange rate adjustments are not part of the market’s equilibrating process, and is there, in this argument, an implicit lack of faith in the market? Do we really want to exchange the judgments of market players, who are risking their own capital, for those of government (national or international) bureaucrats? And if one does lack faith in markets, what are the full implications of this position, and does it point to a failure of intellectual consistency as well as a failure of markets?

standing of exchange rates—and the exchange rate determination process—in the post-gold-standard world. Assume that the United States did not like the devaluation of the currencies relative to the dollar. What could it do within the confines of the international rules of the game that circumscribe imposing tariffs or other trade impediments (unfortunately, an all-too-real threat)? It could lower its interest rates or decrease its fiscal deficits, both of which would serve to weaken its exchange rate. Assume, moreover, that the United States was already at full employment. Then its optimal policy mix would be clear: lower interest rates and reduce the fiscal deficit. This mix, if engineered in the right proportions, would both weaken the dollar and maintain the economy at full employment.¹⁸ If the United States pursued this strategy, then the crisis country's attempt to export its way out of an economic downturn would fail. That country would have to resort to more traditional measures—expansionary monetary and fiscal policies—that could at the same time worsen its balance of payments.

More interesting, however, is the situation in which country 2 (here the United States) is not at full employment. If it responded to the appreciation of its exchange rate by lowering interest rates—trying to prevent the competitive devaluation—then its output would at the same time increase as a result of the easing of monetary policy. The crisis country (country 1) would then benefit from the leakage. Competitive devaluations, offset by successive cuts in interest rates, would serve as a mechanism for restoring the strength of the world economy. As a caveat, I should note that if investment proved unresponsive to the lowering of interest rates or if one country has already lowered its interest rates to near zero, this process may have limited success in bringing the world out of a global recession. In that case, it might be necessary to resort to other instruments.

Contagion

The second argument in favor of beggar-thyself policies is that the alternative—allowing a depreciation and choosing not to induce a recession—will lead to the spread of the virus, undermining the strength of the international monetary system. How might this occur? I have just described one mechanism—that of “competitive devaluation.” But I have shown (ignoring for a moment the short-run dynamics, to which I will return) that the process will not have such detrimental effects on global output. Instead, it is either benign (because retaliatory devaluations simply rob country 1 of the gains that it would otherwise have had) or actually stimulative (if rivals lower interest rates and thus help the global economy emerge from a global slowdown).

A second mechanism works through asset and capital markets. The instability (read “devaluation”) in one market “reminds” investors of the instability of foreign exchange markets, especially in small, developing countries. Or it may be that although investors always recognized the potential volatility, the instability in one market may suggest that circumstances have changed and that the world is moving into a phase in which such instabilities will arise in others. With such fickle belief systems, a devaluation in one country can lead to a reduced willingness to hold assets in other supposedly similar countries—though the degree of similarity may be no greater than that they are both treated as “emerging markets” by portfolio managers.

¹⁸ There is a long standing controversy about whether larger deficits lead to a weaker or stronger exchange rate, with most economists siding with the latter, most financial market participants (including Greenspan) with the former. For our purposes, the only thing that matters is that there exists some combination of fiscal and monetary policy which will maintain the economy at full employment and adjust the exchange rate in the desired way.

Indeed, today's recommended medicine seems to be that the second country, worried about the potential withdrawal of capital, should self-inoculate by putting itself into a recession. Capital asset values—or at least some capital asset values, especially claims by foreigners—are preserved, but at the expense of the economy's health. (Indeed, domestic asset values are often devastated, as the high interest rates combined with the contractionary fiscal policies lead to collapses of equity values.) Proponents of the policy would argue, however, that the recession to stave off capital flight is far better than the much deeper recession that would occur in the event of the withdrawal of capital.

At this juncture, we can note a few important features of this argument: (i) It recognizes the importance of externalities, mediated through short-term capital movements. The second country, the victim of contagion, could be pursuing perfectly sound economic policies, but it must put itself into a recession simply because of the disturbance in the capital market in another country. (ii) It recognizes the risks that such capital flows impose on an economy, forcing them to face the dilemma of an allegedly small recession today or a larger recession in the future. (iii) It recognizes a high level of market volatility, if not an explicit irrationality of market participants, in which beliefs about returns in one country can be affected by seemingly unrelated events in another in a significant way.¹⁹ To be sure, the vulnerability of a country to these reversals of capital flows depends on the strength of its financial system and more broadly its economy's ability to absorb such large risks. The adverse consequences might be mild in some countries and disastrous in others.

But how can one, on principle, take the view that contagion represents a serious threat to the stability of the world's economic system while at the same time resisting measures that attempt to address the underlying cause, which has so much to do with short-run capital movements? At a practical level, one can argue that a particular proposed measure might have such adverse side effects that the benefits—in terms of reduced risk exposure—are more than offset by the disadvantages of the measure. This is an empirical issue, and it has to be addressed on a case-by-case basis. But the basic proposition in economics about externalities—that one wants to take measures to combat activities that generate significant negative externalities—should create a presumption in favor of government intervention. And if such interventions lead to less of the externality-generating activity—in this case, a diminution of short-term capital flows—so much the better. No one should complain that a tax on the pollution of steel companies may lead to a decrease in the production of steel; the reduction is just a reflection of the consequence of bringing private and social costs into alignment. So too with capital flows.

Clearly, one wants to be careful to identify the precise nature of the externality generated so as to devise appropriate corrective actions. To the extent that the externality is associated with the instability of the flows, corrective actions should be directed at stabilizing them—as Chile has tried to do in recent years—rather than stopping them. A well-constructed dam does not stop the flow of water from the mountains down to the ocean, but it does minimize the

¹⁹ Most would argue, for example, that the default on the part of Russia said little about the likelihood of a default by Argentina. Yet that country, together with virtually all other developing countries, faced soaring interest rates (and in many cases, simply a lack of availability of credit) in the aftermath of the Russian default. Attempts to develop a link—such as that investors came to believe that the Russian default made such defaults more acceptable than was previously the case—seem unpersuasive, and even more so as calm has been restored to the market—without any real change in the global architecture. Still, the large shifts in beliefs could be consistent with the existence of multiple rational expectations equilibria. If investors believed that other investors would respond by pulling their money out of the country, then leaving one's money in a country did become a riskier proposition.

death and destruction caused by the occasional floods. And by stabilizing the flow, it converts what otherwise would have been a source of devastation into a powerful source of productivity. In the same way, well-designed interventions hold out the hope of converting what has been a source of enormous suffering and devastation into a potential source of growth.

To sum up: It has become increasingly apparent that the stance that seemed to be prevalent until recent months—first, that countries should implement full capital account liberalization, including removal of all barriers to short-term capital flows, and, second, that international action in the form of bailouts are required to prevent contagion with its adverse economic effects—was intellectually incoherent.

How serious is contagion? There are many economists who are skeptical of the presence and importance of the contagion effect. In general, they think there is more rationality in the market than significant contagion would suggest. Destabilizing speculation is unprofitable, in their view, and market processes will select against those who engage in it.²⁰ These skeptics argue further that even if contagion does occur and spreads, and there is capital flight, and it does cause a disturbance, there are ways of responding that limit the damage to the country. They note that the machines and other capital goods that the country has purchased with the borrowed capital remain within the country. When the country's currency devalues, foreigners who invested in that currency may experience a capital loss. The withdrawal of (foreign) deposits from the country's banks could presumably reduce the money supply and lead to higher interest rates, with adverse effects on the macro-economy. But the exchange rate devaluation would stimulate exports, and policy makers could use standard monetary and fiscal policy instruments to keep the economy on an even keel.

The recent events have persuaded all but the most diehard skeptics that contagion is a reality, though the channels may be more diverse than previously thought and remain imperfectly understood.²¹ And now-conventional responses to these increasingly frequent and deep crises²²—the beggar-thyself policies—exacerbate rather than ameliorate at least the short-run consequences of contagion. Those who defend such policies argue that the consequences of pursuing alternative policies would have been even worse, but the evidence for this position seems far from clear. To me, several overriding facts do seem clear.

- There are huge costs associated with exposing a country to short-run capital volatility, and even countries following what appear to be good, or at least reasonable, economic policies are not immune from those costs.
- Given the globalization of the world economy, contagion is inevitable. As it turned out, the “contagion” effects from decreased trade and falling prices contributed significantly to the regional downturn.

²⁰ There is some debate about the general validity of Friedman's proposition (see Friedman 1972). Others have argued that “a fool is born every moment,” and while fools may lose money, in the process they can have large adverse effects on the economy. See Farrell (1970) for a discussion of the efficacy of evolutionary processes in this context.

²¹ For example, there is some evidence that although the losses from Russia as a percentage of global capital were miniscule, such losses were concentrated in the same firms that were active in investing in emerging markets. Institutional features of capital markets (capital market imperfections) may play an important role in the transmission of contagion. If so, this point simply reinforces the general message of this paper: The neoclassical models, which assume away these capital market imperfections and the importance of these institutional features, do not provide an adequate basis for the design either of the international financial architecture or of policy responses to these increasingly prevalent and deep crises.

²² Caprio and Klingebiel (1996) show that in the past two decades, at least 69 countries have suffered financial crises; of course, this number has increased substantially since their study came out.

- Allowing devaluations would at least have set in motion economic forces to restore the strength of economies that, as we will see, were predictably entering severe downturns. Moreover, “competitive” reactions achieved through lower interest rates could have served to stimulate the economies still further.
- Any adverse consequences that might have been anticipated from the balance sheet (real wealth) effects of devaluation were dwarfed, almost surely, by the huge real wealth effects of the higher interest rates imposed in a vain attempt to prevent devaluation.
- Macropolicy could—and, I would argue, should—aim to prevent a recession rather than using beggar-thyself policies to try to create one. Even if the high-savings countries of East Asia were temporarily cut off from inflow of new capital, how much worse off would they be? Recall that several of these countries managed to grow rapidly without the influx of such capital in the past. (In this respect, they are in a markedly different situation from the many other countries that are heavily dependent on foreign funds for investment.) And how long after the restoration of economic strength and confidence will it be before foreign capital once again begins to show an interest?
- As it was, the successive imposition of contractionary policies in one country of the region after another had profoundly harmful effects. These countries not only traded heavily with one another but also produced many similar commodities for international markets, and their robust growth was partly based on the expansion of production capacity of many commodities with short-run inelastic demand and supply curves. As a result, the contractionary policies led not only to beggar-thy-neighbor trade contraction but also to rapidly falling commodity prices, with profound macroeconomic consequences throughout the world.

The Threat to the Integrity of International Capital Contracts

I suspect that the real concern is not the succession of macroeconomic disturbances that contagion might bring—after all, the inoculation against contagion seems itself to be a succession of macroeconomic recessions—but rather the threat that it poses to lenders and, more generally, to suppliers of capital. A large devaluation may make it impossible for a country to repay foreign-denominated debt. No lender likes his borrower to go into default, and the lender is typically quite willing to have the borrower bear a considerable amount of pain if it increases the likelihood that he will receive payment.

The Central Role of Bankruptcy in Capitalist Economies

Bankruptcy has been a central feature of modern capitalism. Indeed, Greenwald and Stiglitz and others²³ have argued that without limited liability and bankruptcy, the growth of modern industry would simply have been impossible. What investor would be willing to turn her money over to a large corporation such as General Motors if she knew that in doing so she could lose not only that investment but all of her wealth if the company took sufficiently large risks? The possibility of bankruptcy provides an important discipline in this limited-liability context: Lenders know that they are not assured of repayment, and this risk provides them with an incentive

²³ It is perhaps remarkable how little attention was placed on bankruptcy despite the fact that the absence of bankruptcy played such a key role in many of the central results of modern economics. For early discussions of that role and the implications for standard economic theorems, see the work of Stiglitz (1972, 1974), which was based on a lecture presented in Hakone, Japan, in 1970.

to look carefully at the borrower's prospects for fulfilling the contract, to write in clauses restricting the borrower's actions and allowing the lender to demand repayment if conditions are not fulfilled, and even to monitor the actions of the borrower. The threat of nonrepayment is an essential part of the incentive system of modern capitalism, and it is what has made lending institutions so important as monitors of the use of capital. Berle and Means (1933) drew attention to this in their classic study early in the 20th century, and I recast the issue in terms of modern principal-agent theory almost 15 years ago in my address before the Western Economics Association.²⁴ (I argued there and elsewhere [Stiglitz 1982] that with diverse equity ownership, shareholders were unlikely to exercise effective discipline, partly because of the free-rider problem associated with management as a public good.)²⁵

Much recent discussion has focused on the moral hazard problem associated with the bailouts in East Asia and elsewhere, and there can be no doubt that this problem exists. Bailouts have clearly reduced investors' and lenders' incentives to gauge accurately the quality of projects or firms in which they are investing. The counterargument that investors have, in these instances, still lost money does not answer this charge. Moral hazard exists whenever incentives are distorted, and if bailouts result in investors getting paid more than they otherwise would have, there is moral hazard. Although investors may not make a loan on the assumption that they will necessarily be bailed out, even the recognition of a probability of such a bailout affects their calculus and makes them more willing to make the loan than they would be otherwise.

The Real Moral Hazard Problem

But one might argue that there is an even more important moral hazard problem than the one caused by bailouts: The attempt to stave off bankruptcy by those who have borrowed abroad by preserving exchange rates—at the expense of the domestic economy, workers, and small businesses within the economy—reduces the incentive for lenders to exercise due diligence in making loans and to monitor borrowers. It is not just the bailouts themselves, but the entire rescue package—including the policy stances—that give rise to the moral hazard problem. It is the threat of bankruptcy that provides strong incentives for lenders. If bankruptcy had been viewed as a real threat, lenders would have engaged in more due diligence and closer monitoring, both before and after making the loan, and therefore international capital markets would arguably have been far more stable. Thus, the very rationale for many of the bailouts—enabling the borrowers to repay the loans—betrays a lack of understanding of the basic workings of a modern capitalist economy. (To be sure, if one could take actions that strengthen a company in order to stave off bankruptcy, one would do that; and if the firm went into bankruptcy and such actions were available, those are the actions that the new managers would undertake. But in the recent episode, the actions taken to stave off the defaults on private loans ended up weakening the overall economy and imposing huge costs on others.)

In a world with floating exchange rates—the regime that we have lived in for almost three decades—investors should have recognized that exchange rate risks represent one of the key risks faced in cross-border lending. And they cannot avoid those risks simply by lending in their own currencies, as the probability of that country's default is still related to the exchange rate risk. Even without exchange rate risk, lending to different companies within a country

²⁴ See Stiglitz (1985).

²⁵ See also Grossman and Hart (1980).

represents an exposure to correlated risk, as macroeconomic shocks are likely to affect all borrowers in that country; exchange rate risk has the same effect.

The Problematic Nature of Bankruptcy in East Asia

Our main argument has been that the failure to understand the incentive role of bankruptcy has led not only to moral hazard associated with bailouts—a factor that has received extensive discussion in the popular press—but also to moral hazard created by maintaining non-market-determined exchange rates, often at great expense to the rest of the economy. But the failure to understand the nature and function of bankruptcy may continue to play a role in dragging these economies down. The prevalence of bankruptcy partly induced by misguided macropolicies—by one recent estimate, two-thirds of Indonesia's firms are bankrupt—has generated economic paralysis. At the same time, the methods of resolving bankruptcy are those prevalent in countries in which bankruptcy remains a relatively rare event and are unsuited to the systemic bankruptcy that has developed in several of the countries.²⁶ Moreover, given the important macroeconomic consequences of systemic bankruptcy, a quick resolution is important, yet the policy framework is one that engenders delay, with high social costs.

Curiously, although staving off bankruptcy—avoiding a debt moratorium or whatever euphemism one prefers—was one of the main objectives underlying the rescue packages, in three of the four recent cases the rescue package failed to attain even that objective. And indeed it was not until Korea and Indonesia instituted what were in effect debt moratoriums as a prelude to rescheduling that there was any significant stabilization of the exchange rate.

The key concern today is that the delay in resolving bankruptcies is having large macroeconomic consequences; rough justice may be far preferable than a fine-tuning of claims, especially from the perspective of society as a whole.²⁷ But even if there were no macroeconomic implications, it would be desirable to have a quick resolution. Indeed concern about the length of time needed to work out a bankruptcy and the attrition of asset values during that interval is one of the reasons that lenders typically agree to a quick reorganization. Under these arrangements, management usually stays in place, and existing owners retain a larger share than they might seem entitled to under the terms of the loan contract (where there should receive nothing as long as creditors are not fully repaid.) Presumably, given the uncertainties about the bankruptcy process in the Asian crisis countries, lenders should have faced even greater incentives for a quick resolution had they not expected²⁸ a bailout that might have preserved their asset values better, for example, through government assumption of corporate liabilities. Note, by the way, that such bailouts represent the nationalization of private liabilities, the flip side of the privatization of national assets that has taken center stage in the economic reforms of recent decades. Again, given the systemic nature of the crisis, concerns about stripping of assets, at least in the case of Indonesia, are being raised at the macrolevel: The capital goods may actually

²⁶ Some, in the policy debate, have even argued that government should not intervene in the bankruptcy process—failing to note that governments, through the bankruptcy law, essentially define the entire process. There is no escaping the role of government, as much as the ideology of some participants in the debate would like to minimize that role.

²⁷ Note that the existence of these macroeconomic effects implies the existence of an externality: Each individual creditor, in determining his bargaining stance, ignores the impact of the failure to reach resolution on others. The existence of these externalities—the importance of which increases as their aggregate impact increases—by itself provides a strong rationale for government action to try to expedite bankruptcy resolution.

²⁸ This expectation was perhaps engendered by what had happened in some previous bailouts and reinforced by the failure, in each of the successive bailouts, to force lenders to take any "hair-cut" at the time the bailouts occurred.

be getting shipped abroad. This raises the concern that at the end of the crisis the country's capital stock will actually be lower than at the beginning, and not just as a result of depreciation exceeding investment.

The backdrop to a Chapter 11 reorganization, in which management remains in place with a rearrangement of ownership structure and creditor claims, is the threat of a more massive corporate reorganization. Such wholesale changes are especially warranted when the bankruptcy appears to have resulted from incompetence on the part of management. But in the current situation, the bankruptcies were largely a result of macrodisturbances that were beyond those that any reasonable manager should have been expected to contemplate. Thus, there should have been a presumption that existing management should continue in place (except in those instances where, say, firm corruption contributed importantly to the problem). Such a presumption would have made the workouts easier than in the standard case.

On the other hand, several factors made a workout especially difficult (beyond the hoped-for nationalization of private liabilities.) One problem has to do with trusteeship: Typically, in the presence of bankruptcy, the firm is placed under the supervision of a trustee to prevent asset stripping and other actions that might erode the claims of creditors. Would lenders trust a trustee appointed by the courts within these countries to act in a fair and judicious manner? Perhaps not, but that was (and perhaps was) one of the risks that lenders should have taken into account (and perhaps did) in making the initial loans. A related problem concerns conflicts among creditors: The differences in interests among the stakeholders (e.g., foreign and domestic banks) may have been larger than is typically the case in bankruptcy, thereby impeding a quick resolution to the problem of sorting out and addressing the claims of various parties.

An important manifestation of this problem was associated with ascertaining with the appropriate valuation²⁹ of domestic versus foreign claims: What exchange rate should be used? There is precedent for overriding the terms of a contract when the price changes are of an order of magnitude greater than could reasonably have been anticipated.³⁰ In some cases, the fact that controlling interest in many firms would have been transferred to foreign banks was obviously troublesome.³¹

The institutional arrangements for systemic bankruptcies, especially when they entail cross-border capital flows, are far from ideal. One of the silver linings in the current crisis is the seeming willingness of participants in the international capital market to begin to address this problem.

²⁹ There are other difficult valuation issues arising from the systemic nature of the bankruptcy: Many of the assets of the enterprise are claims on firms that are themselves bankrupt, thus giving rise to a complex simultaneous equation problem.

³⁰ The analytic argument is that these represent contingencies for which, had the parties to the contract thought about them ahead of time, they would have written special provisions. In general, bankruptcy law can override provisions of contracts that run contrary to it; what is required is a new "chapter" of the bankruptcy code that deals with massive changes in exchange rates and possibly interest rates. One aspect of the policies aimed at speeding up corporate reorganization is the provision of incentives—carrots and sticks—to accept an "equilibrium" exchange rate.

³¹ I am not sure how serious a problem this should have presented. The foreign banks would presumably not have wanted to keep their "shares" in the firms, and in many cases these shares might have been purchased by other firms in the industry, either within or outside the country. Although paying due attention to antitrust considerations, "control" shares would have been of most value presumably to an interest that saw itself increasing the productivity of the firm. Again, there are some important caveats: The controlling interest might have tried to strip the assets or to garner for itself advantages at the expense of minority shareholders. These issues, which arise in any capitalist economy, have been brought to the fore by what has gone on in countries such as the Czech Republic. To address them, one would have needed to ensure that there were effective laws in place to protect the interests of minority shareholders.

So Why Beggar Thyself?

In short, all three of the justifications for beggar-thyself policies are questionable. Most doubtful is the first: the assertion that competitive devaluations represent a threat to the stability of the global economic architecture. It is not clear whether the countries were engaging in competitive devaluations rather than simply leaving it to the market to determine exchange rates. Moreover, the dynamic reactions may in fact lead to a strengthening of the global economy.

Second, it is not clear how seriously to take the contagion effects that beggar-thyself policies were intended to ward off. In any case, beggar-thyself policies themselves give rise to externality (contagion) effects—effects that, at least in East Asia, proved to be of first-order importance.

Third, there is the concern about avoiding defaults on international contracts. But the policy response to this concern had perverse effects: It increased defaults among domestic firms that had been pursuing perfectly reasonable economic policies. This response is based on a failure to understand the place and role of bankruptcy in modern capitalism, and it led to potentially serious moral hazard problems.

What is clear is that beggar-thyself policies, whether by design or not, have protected some economic interests at the expense of others. In the conclusion, I return to some aspects of the political economy of the crisis responses.

4. Beyond the Neoclassical Model

Repeatedly, I have argued that the neoclassical model provides us with little insight into the appropriate policy frameworks. If that model were correct, then the adjustments would have been far easier than they were in actuality. More important, all the central features on which I have focused—bankruptcy, the externalities associated with contagion, the disturbances associated with incomplete contracting, and the rigidities in adjustments—should take us beyond the neoclassical model. That model has led some into an overenthusiastic endorsement of capital and financial market liberalization without encouraging them to pay due attention to many crucial issues: how those markets differ from other markets in the economy, why all successful economies rely heavily on financial market regulation, why financial market regulation must extend beyond simply insisting on capital adequacy standards, and how excessively rigid implementation of capital adequacy standards can weaken economies, just as undue forbearance without adequate supervision can. Liberalization inspired by this naive reliance on the neoclassical model has been identified as one of the major sources of the increased frequency and depth of crises that have plagued the global economy in the past quarter century³² and has been concretely related to the East Asian crisis.³³ And naive reliance on that model has also been identified as one of the explanations for the failures in the crisis responses.

³² See Demirgüç-Kunt and Detragiache (1998), Diaz-Alejandro (1985), and Kaminsky and Reinhart (1998). The increasing prevalence of financial crises should at least lead to the question, Is there something wrong with the international financial architecture? When a single accident occurs on a road, one might be inclined to blame the driver; but when the same curve in the road becomes the site of repeated accidents, one should at least explore the possibility that there is something wrong with the road itself!

³³ See Furman and Stiglitz (1998a).

The Importance of Financial Markets

Before examining those responses, I want to review a set of ideas that has been at the center of much of the development of macroeconomic thinking during the past two decades. In older theories (both classical and Keynesian doctrines), financial markets were a sideshow, one of such little importance that their entire impact could be summarized in a single variable, the interest rate, which was determined through a money demand equation. Those theories paid little attention to equity markets, and indeed in one strand of thought the firm's corporate financial structure made no difference.³⁴ Neoclassical doctrine held that capital markets were perfect, and in such a world a firm's net worth or cash flow was simply of no consequence. Investment depended solely on future prospects of returns to new capital goods. During the past two decades, the theory of imperfect information has explained why corporate finance matters, why capital markets are imperfect, and how these imperfections have real consequences at both the micro- and the macrolevel.³⁵

Real Wealth Effects

Here I want to focus on the real redistribution effects associated with devaluations and interest rate increases—effects that are central to understanding the impacts of these policies on the economy. Earlier, I referred to the debt-deflation models, which held that the underlying market imperfection was the lack of appropriate “indexing” of contracts, so that when prices fell (or rose less than anticipated), debtors lost at the expense of creditors. Such redistributions have real effects that go beyond the distributive consequences because of imperfections in the economy's ability to distribute risk. Greenwald and Stiglitz (1993) point out that imperfect equity markets (which themselves can be explained by imperfect and costly information and especially asymmetries in information that are costly to overcome) mean that such redistributions may deplete the equity of a firm. Thus, even if the redistributions are among firms in the economy, with some firms gaining and others losing, the non-linear relationship between economic activities and net worth results in significant aggregate supply effects. For example, whereas firms that lose net worth take less risky positions—by producing less, investing less, hiring fewer workers, and holding smaller inventories—firms that gain net worth do not expand their activities in a fully offsetting way.³⁶

These effects are exacerbated through two other channels: Bankruptcies lead to a destruction of informational and organizational capital, and they also raise the share of non-performing loans in bank portfolios. Thus weakened, banks cut back on their lending activity.³⁷ Many companies will face credit rationing, and the withdrawal of preexisting lines of credit leads to

³⁴ See Miller and Modigliani (1961). Stiglitz (1974) showed, within a general equilibrium model, that Miller and Modigliani's results were more general than they had demonstrated but also far more restricted. In particular, he emphasized the importance of bankruptcy and capital market imperfections.

³⁵ See, for example, the extensive discussion on neoclassical investment functions. Despite earlier research showing strongly that cash flow mattered, for two decades empirical research denied its importance. With new theories making it acceptable to include such variables in econometric specifications, the importance of the facts became apparent (see Stiglitz 1988; Calomiris and Hubbard 1990).

³⁶ See Greenwald and Stiglitz (1988, 1990b, 1993).

³⁷ For a more extensive discussion of these channels, see Greenwald and Stiglitz (1990b).

further disturbances to the economy. Although these real wealth effects occur in any economic downturn (and were described extensively in our work written before the recent crisis), the crisis itself has afforded a rich opportunity for tracing out these effects on a massive scale.³⁸

Real Wealth Effects of Devaluations

The devaluations led to huge real wealth redistributions, largely between domestic firms and foreigners. The net worth of the companies in aggregate was weakened, and this would have been anticipated to have induced a large shift in the aggregate supply curve to the left. But at the same time, the crisis had marked effects on aggregate demand for two reasons. First, consumption and investment declined because of real wealth effects that were most obviously manifested in declines in stock market values but were evident too in the declines in present discounted value of expected profits of unlisted companies. Second, the crisis had more conventional negative effects on investment, as the real estate bubble burst and future growth estimates were scaled back. Greenwald has emphasized the importance of supply effects (and the imperfections in goods markets), pointing out that if, as standard theory would have it, small countries faced horizontal demand curves for their product, the deficiencies in domestic aggregate demand could fully be offset by an increase in exports. (Because sectoral mobility is not perfect, of course, unemployment might still increase.) Contrast this neoclassical framework with the evidence from East Asia. There, not only did the export response fail to compensate for the loss in domestic aggregate demand, but it was decidedly anemic: In dollar terms, exports failed to grow at all.³⁹ In part this unimpressive showing stemmed from weaknesses in neighboring economies—weaknesses to which the beggar-thyself policies contributed and that should have been taken into account as each policy package was adopted—and in part it resulted from falls in commodity prices. But if there really were a horizontal demand curve for export products, given the small size of these countries relative to the global marketplace, the effects of those weaknesses would surely have been swamped by the huge devaluation of the exchange rates. The obvious culprit is the supply-side effects.⁴⁰

Real Wealth Effects of Interest Rate Increases

Perhaps even more important than the supply-side effects that followed from the devaluations were the losses associated with interest rate increases. The huge increases in real interest rates—in economies in which firms had high debt-equity ratios and heavy short-term indebtedness—had precisely the effects that our earlier work predicted that it would. Bankruptcies soared, as I have already noted.⁴¹ And even firms that did not go bankrupt saw their net worth decrease, further increasing the already excessive debt-equity ratios. As the share of nonperforming loans increased, banks' balance sheets worsened and credit became more constricted, further exacerbating the downturn. These supply-side factors—operating through increased

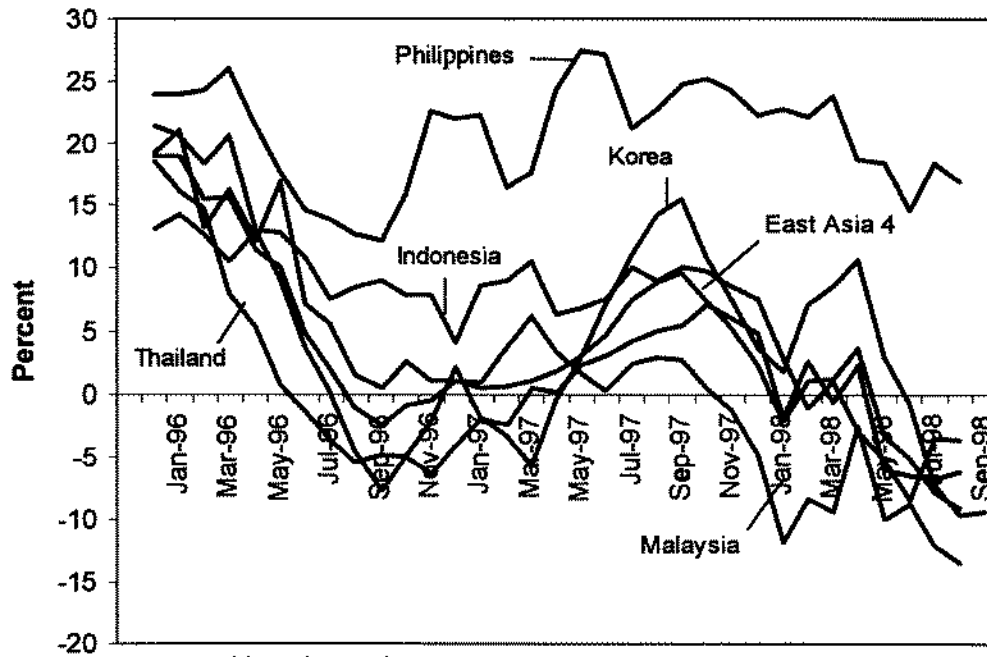
³⁸ Greenwald (1999).

³⁹ See Chart 3. Somewhat more accurately, the rate of expansion of exports was lower than it had been before the crisis, and in several of the most adversely affected countries, there were actually periods of export decline.

⁴⁰ Even if there had been a large export response, unemployment would have grown, as it is not easy to shift resources from one sector (e.g., construction) to another. Yet the transition of the United States from a war economy to a peacetime economy after World War II shows that dramatic transitions can occur with remarkable smoothness, provided there is adequate aggregate demand.

⁴¹ See, for example, Bognini, Ferri, and Ham (1998).

Chart 3: Export Growth in Crisis Countries



Source: World Bank Development Prospects Group

bankruptcy, reduced net worth of surviving firms, and the reduced credit flows from the resulting weaknesses in banks—and the more conventional demand-side factors fed on each other in a vicious circle.⁴²

In addition, the high interest rates reduced output through other channels. They lowered stock market values and the values of other assets, thus reinforcing the downward trend in consumption. Because even under quite transparent accounting systems it would have been difficult to tell how each firm was affected by the huge changes in induced asset values, the huge increase in interest rates contributed to the uncertainty concerning each firm's net worth. This uncertainty reduced aggregate demand and aggregate supply both directly and indirectly, as the increased uncertainty had a chilling effect on the flow of credit.

The interest rate policies, it was argued, were only temporary. But even temporary increases in the interest rates—at least of the magnitude seen in East Asia—can have long-lasting effects. It takes a long time to rebuild the net worth that was destroyed, not to mention the organizational and informational capital that were dissipated along with that net worth.⁴³

⁴² In the case of Indonesia, the manner in which banks were closed down may have contributed to the run on the private banks, exacerbating the credit problems in that country (see Sanger 1998). For a fuller discussion of bankruptcies and the credit crunch in East Asia, see Domec and Ferri (1998) and Bognini, Ferri, and Ham (1998).

⁴³ There is a certain irony here. Much of the popular discussion focused on the lack of transparency—the lack of information concerning firms' balance sheets. Yet the high-interest-rate policy, because it generated huge changes in asset values, was itself a major source of uncertainty about asset values. For a fuller discussion of transparency, see Furman and Stiglitz (1998a).

Modeling, Forecasting, and the Design of Policy Responses

Most of this paper is concerned with arguing against beggar-thyself policies, which seem to have become the recipe du jour for dealing with crises. The policy responses were at least partially based on an incomplete understanding of the nature of modern capitalist economies and of the role that bankruptcy plays. But some of the excessively contractionary policies resulted also from a combination of poor forecasting and a failure to use the tools of modern statistical decision theory; here too inadequate and outdated models of the economy may have played a role.

Failed Forecasting: Elementary Macromodeling

It should have been obvious, using any standard macro-forecasting model at the beginning of the crisis, that the economies in the region were headed for a severe downturn. The low initial levels of inflation—for example, Korea's inflation had fallen from 5½% to 4% in the 18 months before the crisis—suggested rough macrobalance. The collapse of the real estate bubble itself in Thailand would have suggested a collapse in investment in this area; a number of OECD economies had gone through a similar dynamic of real estate boom and bust followed by investment decline in the late 1980s and early 1990s.⁴⁴ The collapse of stock market prices (in Thailand, they fell by more than half in the year preceding the crisis) could have been anticipated to lead to marked declines in consumption and investment. All this evidence suggested a marked fall in domestic aggregate demand. And although the depreciation should have led to more exports, policy makers should have noted two limitations even early in the crisis. First, devaluation typically increases exports only after a long lag.⁴⁵ Second, the main economy in the region, Japan, had been in the doldrums for years, and the increase in consumption tax imposed in 1997 (combined with the failure to address the weaknesses in Japan's financial system) was widely anticipated to lead to continued economic weakness there.⁴⁶ Although there were reasons for optimism about exports—specifically, the flexibility of markets and the outward orientation of these countries—some of their principal exports fell in a limited range, and in some export markets these countries had more than a negligible share. This fact counseled strong caution in expecting exports to increase quickly enough to offset the immediate decrease in domestic aggregate demand.

Failed Forecasting: Incorporating Financial Markets

All of this is what one would have expected had one used old-fashioned forecasting models, and it is hard to see how one could come up with a more optimistic scenario.⁴⁷ But this analysis

⁴⁴ Higgins and Osler (1997).

⁴⁵ See, for example, Krugman (1991).

⁴⁶ Japan's GDP accounts for 73% of the region's total output excluding China and 64% including China. (Calculated from 1998 World Bank World Development Indicators). In May and June, the IMF and the OECD had forecast 1997 growth rates for Japan of 2.2% and 2.3%, respectively (International Monetary Fund 1997a; Organization for Economic Cooperation and Development 1997), with 2.9% growth forecast for 1998 by the IMF. By October, before the crisis hit full conflagration, the IMF's forecasts had fallen to 1.1% for 1997 and 2.1% for 1998 (International Monetary Fund 1997b). Moreover, a recent study suggests that these official forecasts have generally been overly optimistic in recent years—although, to be fair, not in the case of the Asian developing economies (Artis 1996).

⁴⁷ Note that one might have expected a marked decrease in resource utilization—an increase in unemployment—with the economy operating significantly below its potential, even though output itself might not decline, if one forecast high rates of productivity increase. Even if an economy is growing, significant resources are wasted if it operates below its potential and the social problems that result from rising unemployment remain large. Moreover, in an economy geared to high growth, a growth slowdown can have as disruptive effects as an actual downturn can have in an economy geared to low growth.

ignores the financial and real wealth effects that were at the heart of the problem in most of the Asian crisis countries. As we have seen, these effects provide at least part of the justification for government interventions to prevent the marked deterioration of the exchange rate. Once one recognized the importance of real wealth effects, the short-run prognosis for the economies should have been even more pessimistic: The declines in production and investment and inventories should have been anticipated to be even more pronounced than in a “normal” cyclical adjustment. And once one recognized that these declines would contribute to the hollowing out of the financial sector, one should have anticipated credit constraints that would dampen these economies’ ability to respond quickly to potential export demand. The result would be an adverse supply shock that would reinforce the adverse domestic aggregate demand effect rather than offsetting it.

What is remarkable is that anecdotal data supporting these pessimistic forecasts became quickly available, as car sales plummeted and construction came to a halt.

Failed Policy Responses: Decision Making under Uncertainty

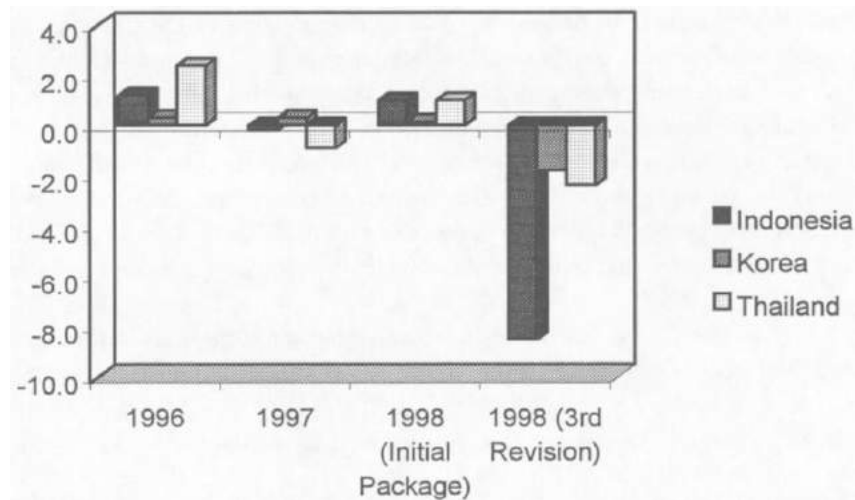
All policy decisions are made under uncertainty. We look at the world through a cloudy crystal ball, and we are even uncertain about the consequences of the policies we undertake. Any course of action entails risks. One of the major advances in recent decades is the formulation of the decision-theoretic framework providing us insights into how to approach such complex problems. Modern statistical decision theory, which focuses on sequential decision making, takes into account such factors as irreversibilities, hysteresis effects more generally, lags, and option values. Several factors—the fact that it is harder to pull an economy out of a recession than to push it into one, the significant probability of a substantial economic downturn, the absence of any recent history of inflation in these countries, and the long lags associated with stimulating demand—suggest that an expansionary monetary and fiscal stance would have been appropriate in the initial stages of the East Asian crisis. Although all sides to the policy debate recognized that revisions would be made as new information came in, initial crisis response policies should have focused on keeping open the possibility of revision. With expansionary policies, should the economy have proven stronger than anticipated, it would have been easier to rein it in more quickly than if the converse had proved to be the case.

But in fact the crisis countries were induced to adopt substantially contractionary policies; the extent of the contraction is depicted in Chart 4.⁴⁸ Curiously, some supporters of the contractionary policies claimed that all they were advocating was a balanced budget (taking into account the interest costs on the financial restructuring)! But at least since Herbert Hoover, most economists have rejected the view that an economy should maintain a balanced budget in a recession. Furthermore, I would argue that it is inappropriate to look at an economy’s fiscal position through the distorted lens of a rapidly slowing economy beleaguered by soaring interest rates. A more balanced perspective would look at the primary deficit as well as at the structural deficit calculated on the assumption of “normal” interest rates.⁴⁹ From these perspectives, the policies pursued were contractionary. Moreover, the reductions in the fiscal deficit (relative to

⁴⁸ See Chart 4.

⁴⁹ There is not consensus among economists how best to treat the interest component of the structural deficit in an open economy. If the purpose of the analysis is to identify the role that the government is playing in stimulating the economy, large transfers abroad in the form of interest payments do not have any effect on domestic aggregate demand, though they may have effects on the exchange rate.

Chart 4: Central Government Fiscal Balances in Crisis Countries



what it otherwise would have been) may well have contributed to the weakening of the exchange rate.⁵⁰

Although there is little question about the adverse effects of excessively contractionary fiscal policies in this situation,⁵¹ it is somewhat more complicated to assess the monetary policy stance taken by the crisis countries. That it contributed to the downward trend in domestic aggregate demand (and in fact in some cases contributed to a leftward shift in aggregate supply) seems clear.⁵² The controversy is over a more complicated issue: Without the increase in interest rates, would the exchange rate have fallen more, and would the fall in the exchange rate have had even more adverse effects?

Here again I would argue that the policy response was based on a fundamental mistake in understanding financial markets and the role of bankruptcy. What investors care about is not the promised interest rate but the risk-adjusted expected return, taking into account the probability of default. The fact that lenders were unwilling to roll over loans paying high interest rates is testimony to the concern about bankruptcy (default). Policy changes—including increases in the interest rate—were likely to, and in fact did, increase the number of bankruptcies for reasons that I have already spelled out. And let us be clear: These increases in interest rates were huge by any perspective. I am reminded of the debates within the United States over whether the Fed should raise or lower interest rates by 25 or 50 basis points. The Fed's recent decision to lower the rate by first 25 basis points and then by another 25 was greeted with a sigh of relief. Yet in Korea, interest rates were raised from about 12% just before the crisis to

⁵⁰ See Furman and Stiglitz (1998a).

⁵¹ Some defenders of these policies point out to other factors that contributed to the economic slowdown. The fact that these factors were known at the time these policies were put into place reinforces the view of a policy mistake: Policy should have been "leaning against the wind" and was, in any case, leading to an economic downturn. The more important and the more apparent these factors were, the greater the apparent mistake in the policy stance.

⁵² For recent evidence on the existence of a credit crunch, see Ding, Domag, and Ferri (1998).

25% in December.⁵³ And even then advocates of high interest rates said this was not enough: They wanted the ceiling on interest rates to be raised to 40%—this in an economy in which inflation was running at 4% just before the crisis hit. And producers faced even tighter money than this calculation would imply. The relevant inflation rate for them was the change in the producer price index, not the consumer price index. With the worsening terms of trade, producer prices were even falling in some instances; thus, real interest rates faced by producers were even higher.

Moreover, for those inside the country, the adverse turn in macroeconomic conditions meant that investing at home became less attractive, providing them with greater incentives to ship their funds abroad. Taking a portfolio perspective, one that includes both human and physical capital, reinforces this view. The increased risk associated with an increased depth of economic downturn, the correlation between the returns on human capital and other capital, and the lack of easy mobility of human capital would suggest that a rational response to the economic downturn would include at least some capital flight.

It is clear, then, that increasing the nominal interest rate ran the risk of actually lowering the certainty-equivalent expected returns and, more generally, of leading to capital outflows rather than increased capital inflows. Once we realize this, we recognize that the trade-off often posited by those advocating high interest rates was a false one: They argued that countries had a choice of high interest rates or excessive devaluations, and although both were bad for the economy, the latter was worse. In the circumstances of East Asia, with highly leveraged firms burdened by large amounts of short-term debt,⁵⁴ there was a reasonable likelihood that higher interest rates would not support the currency—which is what in fact happened.⁵⁵ To be sure, this outcome was not certain at the time. One had to make a judgment concerning the market's assessment of how much the probability of default had increased, and reasonable people might have differed in this judgment. Given the distribution of debt-equity ratios and given different assumptions about the contraction or expansion of sales and increases and decreases in prices of inputs and outputs, what fraction of the firms would in fact go bankrupt if interest rates remained at a particular level for a particular length of time? These were empirical issues on which facts and rational discussion could have shed considerable light. But unfortunately, there was no public discussion of the possibility that there might, in fact, not be any trade-off: Raising interest rates could, and likely would, actually contribute to reduced flows of funds into the country and an increased flow of funds out. There was thus no opportunity to marshal evidence on these issues.

But assume that there was a trade-off; then how should that trade-off have been viewed? It was presumed that preserving the currency was more important than maintaining lower interest rates—and so it might have been, if decision makers saw their objective as preventing defaults on external debt or preserving the vestiges of the fixed exchange rate system. But both objectives seem questionable at best, and the judgement calls about whether the policies pursued

⁵³ World Bank (1998a).

⁵⁴ Several other factors also made the countries far more sensitive to increased interest rates than the countries of Latin America (see Furman and Stiglitz 1998a).

⁵⁵ As always, there is a problem with counterfactuals: Perhaps the devaluations would have been even greater. There is little if any evidence that the rescue packages per se arrested the slide in the crisis countries' currencies. Instead, the continued declines are consistent with the view that market participants doubted that the policy packages—which included the bailout funds, high interest rates, and fiscal austerity—would be effective in making the countries more attractive to investors.

were the best way of achieving those objectives seemed *ex ante* doubtful and from an *ex post* perspective even more dubious.

The key issues in maintaining the exchange rate were (i) did one believe in markets?, (ii) was there a danger of competitive devaluations?, and (iii) how serious was the problem of contagion? I have already raised serious concerns about the last two questions; let me say a word here about the first. There is a curious intellectual inconsistency or incoherence here. Recall that I discussed one such inconsistency earlier: Many observers see contagion—a form of externality—as important and believe that government should work to mitigate the consequences of contagion, but they reject actions to address the causes of contagion as undue interference with well-functioning markets. Here we find a parallel inconsistency: There is broad agreement that whereas markets in general should be left to themselves—because they allocate resources efficiently—for some reason the market for foreign exchange does not work well and requires persistent government intervention. Although that may in fact be the case, and although there is in fact considerable evidence concerning imperfections in asset markets,⁵⁶ there is no body of theory or evidence that suggests that these market imperfections are limited to currency markets.

But assume that one took the objectives as appropriate. Assume, for example, that one placed greater value on the repayment of external debt contracts than on the maintenance of the social contract—that one was inclined to place little weight on the adverse effects of policies on workers and small businessmen, most of whom had not borrowed abroad and had perhaps benefited little from the opening of their capital markets. Then how should one assess the relative magnitude of the adverse effect on the economy as a whole from a devaluation versus an interest rate increase? There is some cross-sectional evidence: One study of financial crisis shows clearly a large negative effect from interest rate increases but no significant effect from devaluation.⁵⁷ Thus, in the absence of detailed data concerning the country, the presumption should be that one should worry more about the consequences of interest rate increases than about the effects of devaluations.

A closer look at each of the countries might add nuance to this view: Clearly, the high leveraging and high levels of short-term debt prevalent in East Asia would increase the risks of high interest rates. For a country such as Malaysia with low external indebtedness, the danger from devaluation was clearly lower than for countries with greater exposure. But exposure is not the only relevant variable: In the case of Thailand, where there has been a careful study of the consequences of the crisis for firms in different positions,⁵⁸ it is clear that in general exporting firms were the firms with higher foreign indebtedness. For these firms, the devaluations (in the absence of the adverse effects of a credit crunch) would have ambiguous effects, yielding gains on the sales side and losses on the asset side. By contrast, those misguided firms in the nontradable sector that had borrowed heavily abroad would clearly be harmed by devaluation. But both equity and incentive considerations suggest that it is fairer and in the long run more efficient for the brunt of the crisis to fall on these firms than on others that had borrowed

⁵⁶ For example, the possibility of bubbles arising so long as there are not futures markets extending infinitely far into the future (as there are not) was widely discussed in the 1960s (see, e.g., Hahn 1966; Shell and Stiglitz 1967; Samuelson 1967). One outgrowth of that literature was the recognition of the possibility of a multiplicity of rational expectations equilibrium (see, e.g., Stiglitz 1973).

⁵⁷ See Demirgüç-Kunt and Detragiache (1998a).

⁵⁸ Dollar and Hallward-Dreimeier (1998).

reasonable amounts.⁵⁹ Taking on foreign exchange exposure was an unnecessary risk, and a government bailout—if only in the form of maintaining the exchange rate—creates an internal moral hazard problem as serious as the external moral hazard problem on which much of the popular discussion has focused. Defense of the exchange rate imposes huge stresses on more prudent businesses as a result of interest rates that soar intermittently—even when their economies pursue good economic policies. This in turn will have a chilling effect on the development of financial markets and thus on economic growth.⁶⁰ In short, simply asserting that there is a trade-off between higher interest rates does not mean that there is; nor does it resolve the question about how that trade-off should be addressed. It can be argued persuasively that if one saw as one's objective as maintaining the strength of the economy, one would have not have pursued a high-interest-rate policy.

5. Concluding Remarks

Ralph Waldo Emerson said that “a foolish consistency is the hobgoblin of small minds.” Keynes argued that practical men are too often the “slaves of some defunct economist” of a bygone era.⁶¹ If so, those scribblers of the past failed to develop an intellectually consistent framework for addressing the problems of today, and today's debate is marked more by a foolish inconsistency than a slavery to a consistent intellectual framework. But without such a framework, where do we turn for intellectual structure? In a rapidly changing world, the remedies of the past may be inappropriate for the situation of today. The 1990s crisis in Asia has differed from that of Latin America in the 1980s. Which of the policy prescriptions that may (or may not) have worked in the latter case are relevant to the former?

That many of the policy prescriptions in the East Asian crisis did not work well is by itself not necessarily a criticism. For, as I emphasized earlier, decisions are made under uncertainty: Even decisions that are “good” may probabilistically fail. My concerns are, I hope, deeper. I worry that there was a failure to use the best available models and information, that is, that decision makers would have made better choices if they had taken into account advances in economic thinking bringing modern finance theory into macroeconomic analysis (recognizing, e.g., the importance of bankruptcy) and had they made use of the lessons of modern statistical decision theory.

Why did these mistakes occur? Was it simple ignorance? Another example of a failure in public policy? Or were there incentive effects at play, so that the policies that were chosen were those that reflected the interests of, and risks faced by, some groups more than those of others? Economists have of late emphasized the role of incentives faced by each of the participants in the decision-making process, and it is hard to resist the temptation to apply such political economy analysis to the situation at hand.

⁵⁹ Moreover, much of the borrowing for nontradables was for speculative real estate; firms in this sector were likely to go bankrupt in any case, with or without further devaluation. There are few adverse effects from being “more bankrupt.” Moreover, the macroeconomic consequences of these bankruptcies, in the short run, was likely small, as investment in this sector clearly was going to dry up in any case. Clearly, the marginal bankruptcy costs of high interest rate policies were far higher than those associated with allowing further exchange rate devaluation.

⁶⁰ Levine and Zervos (1998) show that financial depth has a large and significant positive effect on economic growth.

⁶¹ “Practical men, who believe themselves to be quite exempt from any intellectual influences are usually the slaves of some defunct economist. Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribblers of a few years back” (see Keynes 1964).

Any crisis of this magnitude has huge distributional effects. One of the remarkable features of the East Asian miracle was that, for all the allegations of crony capitalism, the fruits of the region's growth were widely shared: Poverty rates fell from 6 out of 10 in 1975 to 2 out of 10 in 1995 for the region as a whole. Even in the country where the charges of crony capitalism are expressed most strongly, poverty rates fell from 64% in 1975 to 7% in 1997.⁶² Yet there is little doubt that the workers and small businesses have shared in the pain of adjustment much more than they did in the fruits of the short-term capital flows earlier this decade. Alternative policy responses would have had other risks and different distributional effects: Surely, at least in the judgment of those making the decisions, the responses that they took were not Pareto dominated by the alternative responses that were broached at the time and have subsequently received increasing attention. Indeed, as I have emphasized repeatedly throughout this paper, there were risks associated with any course of action. But a fundamental insight of modern Bayesian analysis is that forming the subjective probability judgments required to evaluate alternative courses of actions requires specifying a loss function; these are not technical matters that can be addressed by technicians divorced from the political process. And the loss functions of a New York or London banker, a bureaucrat within an international financial institution, an official of a G-7 treasury, a worker or small businessman in Jakarta, and an international businessman in Bangkok are all different (even if some of these might have difficulty describing in full richness their loss functions.)

Clearly, too, those who bore some of the largest downside risks had little or no effective representation at the tables at which these decisions were made. Would wider—one might say more democratic—participation in the process have resulted in different outcomes? Those participating in the decision making typically claim that in the time of crisis there simply was not time to engage in such broad discussions. But the crises have unfolded over months. Moreover, these were not the first crises, and at the very least the periods between crises provide an opportunity for a debate about these issues. Indeed, that is why I am raising these issues for discussion here.

Paul Krugman has argued that amateur psychology played a role in the crisis response: trying to predict market psychology, that is, how market participants, from Jakarta, Bangkok, and Seoul to London, Paris, Frankfurt, and New York, might react to various actions that might be taken.⁶³ Economists went beyond the disciplines of their profession into a quagmire and without even the discipline that rational expectations imposes on “reasonable” beliefs.⁶⁴ The naivete of the market psychology analysis is epitomized in those discussions that anthropomorphized the market. Analysts would say, “The market expects . . .” or “The market demands . . .”. Who is this Mr. Market? As I interacted with investors throughout the world, I saw a very different picture—different investors with different expectations, in different circumstances, with predictably different reactions. Clearly, in retrospect, many of the policies seemed to have paid too little attention to the reactions of investors within the crisis country. These investors rationally and predictably sent their money out of the country as they saw their risk-adjusted expected returns—including their returns on their human capital—plummet.

In the same way, economists have increasingly ventured into another domain: that of

⁶² World Bank (1998). For a more extended account, see Radelet and Sachs (1998).

⁶³ Krugman (1998).

⁶⁴ The fact that there may be multiple equilibrium rational expectations means that even with rational expectations, one cannot get a unique prediction.

political science. Modern political science looks at the incentives of various political actors and how, within the rules of the political game, those incentives play out. More traditional political science has assigned a greater role to ideology and personalities. And clearly, in many cases, these strands get intertwined: An ideology can help provide an intellectual framework that justifies actions that serve the interests of a particular group, and a person who has staked his career in advancing a particular intellectual framework has an incentive to see that it works or that it is at least perceived to work. It seems clear in retrospect that East Asia hardly needed the additional capital flows that opening its capital markets brought and that such capital flows brought with them high risks (especially given the state of their financial markets) that more than offset the potential benefits. These contrasting views were in fact debated within the “halls of power,” especially in the context of pressures on certain East Asian countries to further liberalize their financial markets. But in the short run, the gains to Western capital markets were clear, and the decision to liberalize was consistent with those interests being more effectively addressed than broader global interests. Similarly, in the crisis responses the downside risks of deep recession were presumably balanced against the risks of disturbances to the global capital market as well as the risks to the asset values of lenders who might be harmed by a debt moratorium or rescheduling. (Of course, in the case of Indonesia and Korea, effective moratoriums followed in any case shortly thereafter.) To reiterate, there were clearly risks on which reasonable people could have come to different conclusions. The question is, Who bore these risks, and whose interests were reflected in the decision-making process?

Jeff Sachs and others have raised a far more disturbing set of questions: To what extent did the rhetoric with which the crisis was addressed contribute to the crisis, but even more important, from a longer-run point of view, whose interests did this rhetoric serve?⁶⁵ By focusing on allegedly deep-seated problems—such as crony capitalism and a collapsing financial system, both problems that presumably could not be addressed in a few months even if work on these programs was begun immediately—did the crisis-response packages in effect yell “Fire” in a crowded theater and thereby contribute to the rush to the exit? And if investors believed this rhetoric about deep-seated problems, was there any hope that they would return to the crisis countries in the short run before seeing concrete progress in addressing the problems—when evidence of such progress could not possibly be available very soon? And in any case, did such rhetoric help move the economy to a lower-level equilibrium (a quasi-rational-expectations equilibrium) where everyone believed that others believed that these economies were rotten and therefore not places to put one’s money? Look at the issue from the perspective of fund managers: If they invested in these countries and they lost, they would be severely criticized—they had been warned about the problems. Given the dire characterizations of these economies’ problems, the upside potential did not justify putting one’s career at risk.

Even more interesting than the debate about whether Sachs’s analysis is correct, however, is the debate about the motivation of the policy stances and the rhetoric itself. In the early stage of the crisis, that rhetoric placed the blame squarely on the countries themselves. The same interests that had promoted financial and capital market liberalization had an incentive to deflect attention from potential problems with the system: The problem was within the borrowing countries, they argued. Lenders had an interest in shifting blame for the bad loans: It was weaknesses in the borrowing countries’ financial systems, plus a lack of transparency, that was to blame.

⁶⁵ See Radelet and Sachs (1998).

It took some time before the general theorem that I had put forward—that every loan has a borrower and a lender, so that the lender must share equally in the blame—began to resonate. Indeed, I went further and noted that many of the foreign lenders were marginal: They were lending into a situation where, for example, Korean banks already had huge debt-equity ratios. Furthermore, these lenders were supposedly well regulated and had sophisticated risk management systems. Given these considerations, foreign lenders perhaps should have taken on a larger share of the blame: They were at fault for giving the loans or at least for not insisting on higher interest rates (which would have discouraged the borrowing) that reflected the true risks. The involvement of foreign lenders also shed new light on the argument that loans were made as a result of crony capitalism, for those foreign lenders were not responding to government pressure. Was the suggestion that bad loans in the West are simply a reflection of normal business risk taking, whereas elsewhere they are simply the reflection of excessive government interference?⁶⁶

A further word on crony capitalism and transparency: It is true that governments did play a role in affecting the allocation of capital in some countries, though probably this did not account for the real estate bubble in Thailand, where the crisis started.⁶⁷ But the focus on transparency had one immediate implication: Blame would fall not on lenders and investors who should have done due diligence before investing but on crisis countries that were not transparent enough. This blame shifting ignored the fact that the problems of transparency were well known and that, if anything, transparency had increased in recent years, not decreased.⁶⁸ It ignored also the fact that the causal connection between transparency and crisis had not really been established; remember, for example, that the last set of financial crises had occurred in the highly transparent countries of Finland, Norway, and Sweden. By raising these issues, I do not mean to deny the importance of increased transparency but only to identify the interests of those who were served by the emphasis on this problem—a problem that could clearly not be addressed overnight—as the crisis spread. By the same token, the emphasis on these issues again raises the political economy issues: Were these official interpretations of the crisis reflecting special or particular interests?⁶⁹

But there was an even narrower sense of self-interest that may have been reflected in the rhetoric: When a doctor's prescription fails to work, there is often a tendency to try to blame the patient for failing to execute the prescription faithfully. Can there be in these situations a conflict of interests between the patient and the doctor, given that the doctor has an incentive

⁶⁶ Indeed, there may have been a form of Gresham's law at work. Weak banks in some industrialized countries had an incentive to look for high (and thus likely risky) returns abroad. Thus, weaknesses in foreign banks, combined with inadequate regulatory oversight there, were central to the problem of "excess borrowing." Weak banks in one country lead to financial weaknesses elsewhere in a form of contagion. And weak banks everywhere, through their willingness to make riskier loans at more favorable terms than will sound banks, help drive out the sounder banks (see Stiglitz 1992b).

⁶⁷ It is often difficult to ascertain precisely the carrots and sticks governments use to accomplish their purposes. This is especially true with discretionary regulations: there may be an implicit understanding (or hope) of "greater understanding" on the part of the regulator. The Federal Reserve's role in the bailout of Long Term Capital Management might appear "subtle." We will probably never know whether there were implicit understandings of greater discretionary favors for those who cooperated in the bailout.

⁶⁸ See Furman and Stiglitz 1998a.

⁶⁹ There is another dimension of interests: the interests of the political leaders. With constrained budgets, political leaders in the more advanced countries had an interest in identifying a problem that could be addressed without large expenditures on their part. The fact that at the same time they aligned themselves with a politically powerful group within their own country (and with which the agencies responsible for addressing the problem were closely allied) made a strategy of focusing on transparency doubly attractive.

to maintain his credibility?⁷⁰ In a competitive market, the opportunities for blame shifting are limited. Patients might search for a doctor not only whose prescriptions on average work well but also one who, when the prescription fails, quickly changes the therapy; that competitive pressure would limit the extent to which blame shifting occurs. But in the absence of strong competitive pressures, the doctors' incentives may be distorted.⁷¹

Where will the debate end up after the crisis is resolved? Already, those who still advocate capital market liberalization are reasserting their long-term agenda—even without some of the caveats that earlier accompanied that movement, though perhaps by now they are so well understood that they need not be repeated.⁷² Still, I do believe that the center of debate has shifted: There is a greater awareness of the risks of short-term capital movements, a greater skepticism of the gains, a greater worry about the dangers of inappropriate responses, and a greater awareness of the importance of providing stronger safety nets and of building institutional infrastructures such as those underlying the market economies.

As the crisis grew from the problem of a small country into a global conflagration, one that threatened even countries with good economic policies, the rhetoric has fortunately changed. Is it because, as good Bayesians, decision makers and advisers have revised their strongly held priors? Is it because the earlier positions have become simply untenable in the weight of the new evidence? Is it that the interests have changed in light of the new global situation? Is there a worry that unless more reasonable stances are taken, the backlash against unfettered and misguided liberalization will be so great that the interests of those pushing for that agenda are best served by a more moderate course? In short, are the changes in views being driven by the new knowledge, the learning that has come from this very costly experiment, or by a changed perception of self-interest?

Let me confess: As an economist, I have a strong preference for believing that it is incentives—self-interest—that for the most part drives both the policy and the rhetoric behind it. But perhaps that belief is no more than a reflection of our discipline's own self-interest.

I want to end on a more positive note and to come full circle to the main theme of this paper. As academics reaching beyond the narrow confines of our own discipline, we know and believe that there is much beyond self-interest. We speak, for example, of the pursuit of knowledge for its own sake. In my own work on development, I have been convinced that as important as economics is for successful development, it is necessary but not sufficient: The transformation of society involves more than the solution of the technical resource allocation problems on which economics more narrowly defined has focused. In my work in the public sector for the past six years, I have seen hundreds of dedicated public servants, working long hours and motivated by a public spiritedness that went well beyond their own self-interest. Thus, self-interest alone cannot explain misguided policies; ideas and ideologies also matter. It is precisely because I believe that misguided ideas can play and have played as important a role in shaping misguided policies as the forces of special interests that I have spoken at such length and with such passion on this topic: These misguided beggar-thyself policies are having a devastating effect on the lives and livelihoods of millions of people. The impacts are not fully grasped in

⁷⁰ The concept of escalating commitment from the organizational literature may be relevant here: It is in the interests of the "doctor" to see to it that his therapy works. Recognition of the failure—evidenced by its abandonment—will harm his reputation. Thus, he may stick with the regimen longer than would be in the interests of the patient.

⁷¹ For a fuller discussion of the incentives of advisers, see Stiglitz (1999).

⁷² Contrast, for example, M. Camdessus' address before the annual meetings in Hong Kong in 1997 with his address in Washington in 1998 (see Camdessus 1997, 1998).

the statistics on unemployment or GDP on which we as economists tend to focus but are more fully reflected in data on social indicators, already seeming to show, in the case of Indonesia, in declining school enrollments and lower caloric intakes. I may not be able to do much about the special interests that may have shaped such policies, but I hope I can do something about the mistaken ideas that have informed them.

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