



**Initiative for Policy Dialogue
Macroeconomics Task Force**

**Macro-Policy Issue:
Dealing With an Economic Downturn**

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A country faces a downturn in the demand for its exports. The slowdown in exports has translated into an overall economic slowdown for the economy. As the unemployment rate increases, its tax revenue fall, and though it has only a very limited welfare program, expenditures there have increased, so that its overall budget position has turned negative. The country has a primary surplus, and even, given its limited indebtedness, a zero structural deficit *so long as it can finance its deficit at a reasonable interest rate, given appropriate real accounting conventions*. The country has a moderate inflation of 8%, a debt GDP ratio of 40%, and pays an interest rate of 12% (on domestic loans,). Thus, its interest payments amount to 4.8% of GDP. With tax revenues amounting to 20% of GDP, interest payments amount to close to a quarter of all tax revenues. The government realizes, however, that with inflation, the real value of its debt is shrinking at 8%, so that its real interest burden amounts to only a third as much, just 1.6% of GDP, well within its coping ability.

Though the slowdown in the economy has reduced imports, exports have fallen more, so that the trade deficit has increased, to seemingly unsustainable levels, as a percentage of GDP. The government has intervened in the exchange market, worried that a devaluation would increase inflation, and that a weak currency would undermine confidence in the country. To strengthen the exchange rate and to ward off speculators, it has also raised the interest rate, and this too has contributed to the economic slowdown.

What is the country to do? The standard textbook remedy for a closed economy is to lower interest rates and increased government expenditures (fiscal and monetary stimulation) to return the economy to full employment. The country worries though about the consequences for its budget, and how it will finance the deficit. It worries that

an increase in the deficit will force it to pay higher interest rates on its already outstanding debt, and that will start a vicious negative budgetary cycle. It turns to the IMF for advice, and is provided with the standard prescription:

THE IMF STRATEGY

Cut expenditures and raise taxes, to restore fiscal balance. Some adjustment in the exchange rate is advised, but accompanied by a strong warning concerning the inflationary consequences, and to ward off these—and to prevent excessive devaluation—interest rates are increased. With fiscal balance restored, market confidence will be restored, and with that, confidence will return, investment will surge, and the economy's strength will quickly be restored.

The country asks, which countries have followed that advice, with the successful predicted outcomes, and how long did it take? What were the driving forces in the recovery?

Mexico's case is cited. But the country notes the special circumstances of the Mexican case: a huge bail-out (which the IMF is not offering now); access to the large American market, which at the time was booming, with the close integration of the two economies being recently furthered by NAFTA; and because of the close integration, Mexican exporting firms did not have to rely on Mexican banks for finance.¹ The country is worried about the paucity of other examples; the IMF says that its advice would have worked in many other cases, but there was inadequate follow through by the country, sometimes because the fiscal austerity that was imposed led to riots and overthrew the government.

{Are there other examples? }

Underlying this advice are certain assumptions about *expectations* and *dynamics*. A more detailed analysis requires taking into account (i) export and import price elasticities and adjustment lags; (ii) firm, government and overall country balance sheets, including foreign dollar denominated debts, especially short term debts; (iii) ability of the government to impose effective controls on capital outflows; (iv) government's ability currently to raise capital on the domestic or foreign market; (v) dynamics of inflation; and (vi) the government's ability to manage its trade deficit.

Critique of the IMF assumptions

Investors, both short and long term, lack confidence that the IMF policies will work, either because they are unsure of the IMF economic model, or because they are uncertain of the political sustainability of the policies. Given that elections are coming up in the country, there is no way that the country can provide assurances on the latter.

¹ For further discussions of the Mexican case, see Perry et al. **reference**. **Also get data on the size of fiscal**

As a result, they take a wait-and-see attitude. They do not immediately pull their money out of the country, but neither do they put more money into the country. The immediate impact of the contractionary monetary and fiscal policies is then to reduce domestic investment and GDP, exacerbating the economic downturn, and increasing unemployment. Assume initially that expenditures and taxes were 20% of GDP. GDP has fallen by 10%, public expenditures have remained fixed, so that they are now 22% of GDP, while taxes fall 1.2% of GDP for every percentage decline in GDP. Hence tax revenues have declined 12%, and are now only 18% of GDP. There is a 4% of GDP shortfall. Assume the government reduces expenditures by 4% of GDP in an attempt to narrow the fiscal deficit. With a multiplier of 2, GDP falls by 8%, and tax revenues fall 9.6%. Expenditures are now 17.3% of GDP, and revenues are now only approximately 16% of GDP. The budget gap has been narrowed, but far from eliminated.

But this ignored the impact of the increase in interest rates, and the increasing investor and consumer pessimism as the economy goes into a deeper recession. Assume that these lead to a modest 2% decrease in “autonomous” aggregate demand. With a multiplier, GDP has now fallen an additional 4%, tax revenues an additional 4.8%. While government expenditures have not increased, as a percentage of GDP they have— to 18.1%, while tax revenues have decreased, to less than 15.5%. (check numbers) The fiscal gap has hardly been closed. And if aggregate demand falls 4%, then expenditures increase to approximately 19% of GDP, while tax revenues fall to slightly less than 14%—the fiscal gap has actually increased.

Seeing the slight progress in restoring fiscal balance, and the amplification of the recession, the confidence of domestic and foreign investors evaporates. Moreover, they become increasingly convinced that the exchange rate is not sustainable, and to compensate them for the expected depreciation of the currency, they insist on higher interest rates. As their confidence evaporates, they also insist on higher interest rates to compensate them for the risk of default. Interest rates increase from the 12% that they were before to 18%, adding another 2.4% of GDP to the fiscal deficit. This adds a new element in the downward vicious cycle. A set of policies that was supposed to eliminate the fiscal deficit has led to a 50% increase. The only good news is that the trade deficit has narrowed. As GDP falls, so do imports.

Confidence in the government also evaporates—it has failed on both its promise to restore fiscal balance and the economy. It receives a strong lecture from the IMF on how it has not taken strong enough measures, and the country’s political turmoil is further blamed. The country is urged to get its act together. But a careful look at the above arithmetic shows that no amount of fiscal prudence would have done the trick.

This analysis has focused on the *demand* side responses to the IMF policies, but there can be an equally adverse supply side response. The high interest rates in the IMF program intended to stave off a large devaluation forces many firms with only normal indebtedness into financial stress. The increasing number of bankruptcies weakens banks as well. They are less willing and less able to provide funds. There is a contraction of lending, and firms have less working capital to finance production, and

less retained earnings to finance investment. Thus, firms are less able to produce, and less willing to bear the risks of production. As production and employment decrease, there are further reductions in aggregate demand. As firm's shadow price of capital increases, as their funds for investment get reduced, the demand for capital goods is reduced, and there is thus another round of reduction in aggregate demand. There is a vicious downward spiral of downward shifts in aggregate demand and supply.

Meanwhile, export performance weakens, both because exporters cannot find finance, and because importers cut back on their demand, worried by the high bankruptcy rate that firms in the country will not fulfill their commitments. Because incomes have plummeted, imports have decreased, but the net improvement in the balance of trade is less than was expected.

Is there any case where the IMF scenario works out well?

One could imagine an alternative set of dynamics/expectations where the IMF scenario turns out more positively. Investors, seeing the resolve of the country to address its problems, have *confidence* restored, and as they do so, the influx of short term capital allows the government to lower interest rates. This stimulates domestic investment, and the overall confidence in the economy strengthens foreign investment, and the two work together to restore the economy to full employment, leading to a fiscal surplus. This allows the government to restore the budget cuts.

This happy ending shows that prudence and patience pays off, but it requires several strong assumptions. Most importantly, the responsiveness of foreign direct investment and short term capital has to be large and quick—it is their expectation that the deficit will be reduced that leads them to be willing to put more money into the country, an expectation which may or may not be satisfied. As we have seen, however, simply cutting government expenditures and raising interest rates to attract more capital need not reduce the deficit, and rational investors will know this.

In a sense, *what is required is that the “confidence” multipliers be greater than the traditional “Keynesian” multipliers, and that investors be willing to make their bets before they see the results.* Evidently, history provides us with relatively few examples of where that is the case.

ALTERNATIVE POLICY SCENARIOS

There is an alternative scenario that the country could have adopted. It could have allowed the exchange rate to fall significantly, lowered interest rates, and increased government expenditures, following standard Keynesian orthodoxy. The problem it confronts is how to finance the deficit? Critics worry that any way of financing the deficit will be inflationary, that the resulting inflation will be worse than the original disease, and that as the economy moves towards full employment with the Keynesian policies, the trade deficit will increase to an unsustainable level. In the sections below, we argue that there are alternative ways of financing the deficit, not without risk, but that the risks associated with these alternative policies are far less—from the perspective of the economy as a whole—than those associated with the IMF strategy.

A. Suspending payments on outstanding debts and allowing the exchange rate to float relatively freely

In the first—and most extreme—strategy, the government imposes a standstill on payments, and uses an expedited bankruptcy process (superchapter 11) for private firms that are unable to meet their debt obligations. This is the framework that the IMF is now discussing, as an alternative to its failed big bail-out strategy, and it is important to think through how things might work out under that strategy.

The government realizes that if it suspends payments on its outstanding debt, it saves 4.8% of GDP. It can use the proceeds to finance increased *real* expenditures. Given an output multiplier of 2, this increases GDP by 9.6%, with a corresponding drop in unemployment. With the economy quickly restored to close to full employment, the government's deficit has disappeared, and it is once again able to resume payments. Slight adjustments in expenditures and taxes enable it to repay the arrears with interest.

If what the country saves in paying interest payments (combined with monetary stimulation) is not enough to stimulate the economy back to close to full employment, there are low cost ways of borrowing that may do the trick. These are described below.

Allowing the exchange rate to float relatively freely will enable exports to grow, and this too will strengthen aggregate demand. (On the other hand, bankruptcy and standstills reduces some of the strongest downward pressure on the currency, so that the magnitude of the decline in the exchange rate is far less than would otherwise have been the case.) A significant decrease in the exchange rate will have the further affect of allowing lower interest rates (through interest rate arbitrage)², since the presumption will be that the exchange rate will be appreciating in the future.

² While the capital controls are imposed, interest rate arbitrage will not work; but the fall in the exchange rate will put less pressure on the system of capital flows, and indeed, such controls may not have to be imposed at all.

Underlying this analysis is the recognition that not every dollar of government expenditure has the same effect in stimulating the economy. Restructuring expenditure patterns towards “high” multiplier activities can thus lead to higher GDP. Moreover, there are other government interventions (e.g. increased taxes on imported luxuries) which reduce the magnitude of “leakages” and thus again lead to higher GDP.

Typically employed accounting frameworks do not provide an accurate picture of the impact of government expenditures or deficits on aggregate demand (and, accordingly, on the “inflationary” threat associated with such expenditures or deficits. It is important for governments to work towards accounting frameworks that are more relevant for macro-economic management.

Underlying the analysis below are three further hypotheses: First, the welfare loss from the economic distortions associated with underutilization of resources are of a magnitude larger than any Harberger triangle associated with, say, tax interventions. Second, capital markets are not well described by the standard competitive equilibrium model, and accordingly, there are many interventions which might seem to lead to significant resource misallocations which do not, and, conversely, some of the IMF seemingly market based interventions actually impair the functioning of the capital market. And third, it is impossible to restore confidence in an economy that is experiencing a deep recession.

The discussion below also relies more on the analysis of balance sheet and cash flow effects of various price changes than has been traditionally the case in macro-economic discussions. Research in recent years has emphasized the importance of these variables.³

IMF Critique

The IMF argues that the policy will result in a complete loss of confidence in the country. What little foreign investment was flowing into the country will be halted, and what capital that is there will flee. As capital flees, the exchange rate will fall further; as investment is halted, the GDP will collapse further. Moreover, the devaluation will set off an inflationary spiral. The inflationary spiral will scare investors away, and undo the effect of the devaluation. If the country has large foreign denominated debt, the collapse of the exchange rate will increase the value of those debts in the local currency, forcing many firms into bankruptcy. The supply interruption will further exacerbate the economic downturn. The attempt to stem capital flows will also fail, but long term investors will be scared by the obvious hostility to capital and the breaking of the rules of the game.

Meanwhile, the loss of investor confidence in the country from the suspension of payments on outstanding debts undermines long term investor confidence, which hurts growth in the long run.

³ References

Evaluation of the IMF critique

Each of the phenomena which the IMF says may occur may indeed occur. There are policies which the country can put into place to mitigate the adverse effects. These may or may not work. There is thus some downside risk. But there is an upside potential. Critics of the IMF policies argue that the downside risk is smaller than with the IMF policies, and the upside potential greater.

The country, aware of these potential risks, announces a modified inflation target, one which raises real interest rates as inflation increases, but which pays some attention to the level of unemployment. It accompanies the suspension of payments with a temporary capital exit tax, tightly designed to focus on short term speculative money, making it clear that long term investors can take their money out freely. (Malaysia provides the model.) The exit tax also inhibits the shifting of deposits abroad, and the revenue raised by the exit tax improves the fiscal position.) The devaluation of the currency, moreover, has reduced if not eliminated speculative pressure against the currency. (The controls are mainly put into place to prevent the overshooting which sometimes occur in exchange rate adjustment processes.)

Long term investors respond to the greater stability of the economy by maintaining, and even enhancing their investment. The tax on short term capital flows allows real interest rates to be lower than they otherwise would have been, and this stimulates domestic investment. The devaluation leads to increased exports, and the higher returns in the export industry contribute to a further increase in investment.

With these protective measures in place, there is a good chance that the Keynesian measures work exactly as predicted, without the adverse side effects.

In the paragraphs below we evaluate more closely each of the concerns raised by the IMF critique, in an attempt to identify the circumstances in which they might be most relevant.

a. Access to capital

i. Threat of loss of access to short term capital in the short term

The IMF is correct in one aspect of its diagnosis: the export tax combined with the suspension of the payments makes the country an unattractive place for short term capital. But the pessimistic outlook for the country meant that there were no capital inflows before the imposition of these measures, and considerable outflows. The IMF is thus wrong in its diagnosis of the short run impact: impeding the capital outflows strengthens the currency, and, given any target exchange rate, allows a lower interest rate.

ii. Threat of loss of access to capital in the long term.

The IMF is wrong, however, in its diagnosis of the long run impact. Markets are forward looking. Capital asks now what was the return in the past, but what will the return be in

the future. The lower interest rates mean that the government's fiscal deficit is lower; its financial position is improved. Moreover, the number of the firms that are forced into bankruptcy is lowered, both because of the lower interest rates and because of the improved overall economic performance of the economy. Thus government tax revenues are increased—again improving the fiscal position of the government. Moreover, to the extent that the government gets involved in restructuring, the amount of restructuring required will be less, and again the fiscal burden will be lowered. And because there are fewer defaults, the supply side of the economy is stronger (with less adverse effect both on the corporate and financial sector.) All of this means that the government's financial position is stronger going forward, making it more (not less) likely that creditors will be willing to provide finance. (There is a counterargument, that the country will obtain a reputation for defaulting, but there is some question about the appropriateness of such reputation models to the situation on hand. Reputation models make most sense when past behavior conveys information about an otherwise hard to observe characteristic of an individual, from which one can infer likely future behavior.

The factors influencing repayment, in this case, are easy to observe; and little if any additional information is conveyed, particularly since the decision to default is a political decision, and the political context can change dramatically in the space of a few years.)

Empirically, there is little evidence in support of the IMF position.⁴ Russia returned to the market within two years of its default, which was admittedly a “messy one” involving no prior consultation with creditors, and on that accord roundly condemned. Korea, which forced a rollover, somewhat more gracefully than Russia (creditors were given a choice of either rolling over the loans or not getting repaid, and recognizing them as in default. While in terms of cash flow, the two alternatives look little different, many firms would prefer not to have to recognize the loss, so that the alternative of roll overs looks more attractive.)

The argument that markets will punish any defaulters ignores the central distinction between competitive markets and monopolies. There may be a public interest among creditors in providing conditions which will ensure that debtors repay, but such an environment is a public good, and it is not in the interests of any small creditor to bear the cost of providing that environment.

Under certain circumstances, it is conceivable that creditors might be able to act collusively; that is, creditors engage in a large number of cooperative activities, involving, for instance, sharing information; it is conceivable that the creditors could exclude from the “club” any creditor who did not go along with sanctions imposed on a defaulter. However, it is not clear that such coercive actions by the creditors collectively would withstand anti-trust scrutiny, nor is it clear that the value of the cooperation is sufficiently great to induce many firms who might otherwise find it profitable to lend from doing so. Thus, in practice, it is apparent that the threat of credit being cutting off appears not to be effective.

⁴ see if one can find empirical studies, references

Of course, it makes sense for an institution which is charged with trying to make credit markets would more effectively (and particularly from the perspective of the creditors themselves) to try to convince borrowers that should they default, or engage in a standstill, they would have to face a high price for this bad behavior, including the cut off of credit. The fact that many countries act as if they seem to believe this message means suggests that the threat is taken seriously. (and it may make sense for a risk averse politician, since *if* the IMF were correct, there might be serious long term downside risks.)

iii. Desirability of openness to short term capital as a discipline device

Even though it is recognized that one cannot invest in factories or create jobs on the basis of short term capital, there are those who argue that the openness to foreign capital provides an important discipline, helping create an environment which is conducive to investment. This argument is dealt with more extensively in the capital market liberalization policy paper, where the contrary argument that short term capital flows represent a capricious disciplinarian, often punishing countries even when they perform well, and imposing a particular set of perspectives about what is “good” economic policy, which may or may not conform to the policies which either maximize growth or which the country might want to pursue on other grounds. More to the point, if the country is concerned with long term investment, it should subject itself to the discipline of long term investors, listening to what they care about, which may or may not coincide with the interests of short term speculators.

iv. Desirability of long term financial capital.

Some would argue that even if there were a loss of access to long term credit, the adverse effects would not be significant.⁵ A distinction is made between these financial flows and foreign direct investment which brings with it management, technology, and access to markets. In some cases, access to the additional resources can be important. But in other cases, its benefits may be more ambiguous: (i) if a country already has adequate savings (as was the case in many of the East Asian countries) there may be problems in investing the additional funds well; (ii) the inflow of funds puts upward pressure on the exchange rate, and the appreciation can create a version of the Dutch disease problem. If the bottleneck in investment is the important of foreign capital goods, then the inflow of funds is positive, for it then simply provides the foreign exchange required to finance the investment, and the exchange rate does not appreciate.

b. Induced bankruptcy and corporate stress: devaluations and interest rate increases

The IMF recommended policies attempt to limit the reduction in the exchange rate by large bail-outs combined with large increases in interest rates. It is based on the argument that such large depreciations are bad because they cause large levels of

⁵ **Studies showing impact on growth of long term financial inflows**

corporate stress (because devaluations increase the real value of debts in local currency, beyond debtors' ability to cope) and induce inflation. The high levels of bankruptcy may be a concern either because of the impact on the overall economy, or because of its impact on foreign creditors. But raising interest rates to high levels and increasing the country's indebtedness also has adverse effects. It may lead to high levels of bankruptcy as well.

There are two related questions: (a) Can the government limit the degree of devaluation, in particular by raising interest rates? and (b) what are the costs to the economy of trying to limit the devaluation, who bears those costs, and how do they compare with the costs of allowing the devaluation.

The logic of the IMF strategy? Can a temporary intervention lead to long term effects?

Before explaining why raising interest rates to stabilize the exchange rate is likely to be countereproductive, we turn to a more fundamental problem, a seeming flaw in the logic. The argument is that a *temporary* increase in interest rates can lead to a *permanent* strengthening in the currency as a result of a restoration of confidence; and because the increase in interest rates is temporary, there is no long run damage. In effect, those who hold this view seem to be saying that an intervention that leads to a movement along the demand curve for the country's currency leads to a shift of the demand curve for the country's currency. There is a change in *beliefs*. Why there should be a change in beliefs, however, is typically not spelled out. On the contrary, if investors know that the reason that the exchange rate has moved in the indicated direction is because of the intervention, there is no reason for them to alter their beliefs about the underlying structures. They can continue to believe that the exchange rate will remain at the higher level so long as the intervention continues, and that it will fall to a lower level when the intervention is stopped. To be sure, there may be other factors affecting beliefs. They may have believed that the moderate devaluation that was allowed would lead to high inflation, and when that does not occur, their confidence that the real devaluation will be sustained may increase. Changes in economic circumstances may lead to a concurrent change in the behavior of government and firms, such that the government removes the intervention at the same time that the private sectors confidence increases. It might appear that the intervention *caused* the increase in confidence. What caused the increase in confidence was, however, something else. In the case of Mexico, for instance, the real devaluation led to an increase in exports, and the gradual strengthening of the economy restored confidence in their economy. There is no evidence that the bail-out packages (including the high interest rates) directly led to a strengthening of confidence.⁶

There has been relatively little research on the process of expectation formation in circumstances such as those of concern here.⁷ *Rational expectations* models, however, provide some guidance in how to evaluate the arguments. A shift in the demand curve occurs as a result of a change in beliefs, which in turn is the result of information which

⁶ Reference to Perry et al paper

⁷ references

has been conveyed, i.e. *signaling*.⁸ But signals convey information only when they are costly, so that the argument that there is little cost from a temporary rise in interest rates but nonetheless the signal conveys information makes little sense.⁹ In the case of the Latin American countries that were pursuing loose monetary policies, the switch to tight monetary policy might convey a change in regime, particularly when accompanied by institutional changes, and this in turn could affect expectations. On the other hand, in East Asia, where monetary authorities did not pursue loose monetary policies, it is hard to see why tightening monetary policy would convey information about a new monetary regime; on the contrary, the use of such inappropriate policies to address the problems, policies which actually exacerbated them, may signal a lack of competence on the part of the monetary authorities, and thus shift the demand curve for the currency in the other direction.

Evaluation of the argument that higher interest rates leads to capital inflows and strengthens the exchange rate

The IMF argues that the higher interest rates make it more attractive for individuals to put money into the country, and the induced capital inflow strengthens the exchange rate. Moreover, the higher interest rate makes speculating against the currency by borrowing in the local currency, converting into dollars, and repaying with devalued dollars, less attractive.

Furman and Stiglitz [] and others, however, argue that there is little evidence that raising interest rates *in general* has the desired effect. To the extent that the weaknesses in the exchange rate are caused by speculation, the higher interest rates may stem that, but the cost to the *real* economy and to the government is large, and these real costs often predominate.¹⁰ There are two reasons that increasing rates may prove ineffective. Both are related to the fact that investors are worried about the risk adjusted expected return, not the “promised” return. Increases in the nominal interest rate may lead to a lowering of the risk adjusted expected return.

1. When firms inside the country are heavily indebted, with short term loans, or loans with variable interest rates, then the increased interest rates induces corporate stress; even firms that are not forced into bankruptcy face significant losses in net worth, and thus contract production. The weakening of the economy may be so great that the *risk adjusted expected returns* is actually lowered. Thus, capital starts to move out, rather than flow in.
2. When governments are heavily indebted, the increase in interest rates worsens their fiscal position, forcing them either to cut back expenditures, raise taxes, or

⁸ references

⁹ Stiglitz [] has also argued that one needs to ask who bears the costs of the signal; increasing the independence of the central bank may imply that central banks bear less of the cost of interest rate increases, so that changes in interest rates become a less effective signal, or lequivalently, there have to be larger change sin interest rates. Independence requires more volatility in interest rates.

¹⁰ In the case of East Asia, the IMF argued that speculation did not play an important role in the crisis. If this *were* true, it would have further undermined their argument for raising interest rates.

- borrow more. Fiscal contraction exacerbates the economic downturn, worsening confidence in the economy; but failure to cut expenditures or raise taxes lead to increasing market worries about the ability to finance the increasing deficit. Both lead to decreasing confidence in the country, a possible lowering of the risk adjusted expected returns, and a capital outflow that weakens the currency.
3. The higher interest rates typically leads to lower asset prices, and the lower asset prices lead to a deterioration of both firm's willingness to produce (aggregate supply), willingness to invest (aggregate demand), and willingness to hire. Similarly, lower employment rates, decreasing asset values, and overall increasing uncertainty lead to a reduction in consumer demand. Thus, aggregate demand and aggregate supply both decrease, leading to a further decrease in GDP, an increase in bankruptcy, an increase in overall riskiness, a lowering of tax revenue, a worsening of government fiscal position, and---on all accounts---a lowering of the risk adjusted expected return.
 4. The above effects are likely to play out especially within financial markets; as firms default on their loans, and firms appear in increasingly precarious position, banks and other financial institutions may be increasingly unwilling to lend. Just as foreigners see a decrease in the risk adjusted expected returns, so too do domestic lenders.
 5. The impact on firm balance sheets of increasing interest rates may differ markedly across firms, and the less transparent firm balance sheets are, or the more important are non-marketed assets within the balance sheet, the more uncertainty there will be about the position of different firms.
 6. These effects are exacerbated if the government strictly enforces risk adjusted capital adequacy standards; for the increased amounts of non-performing loans and the increased default rates will require banks to put aside more money into reserve and raise new capital, or cut back on loans. During the economic downturn, it will be difficult to raise new bank capital, and under standard procedures, the government will lack the wherewithal to provide additional capital to banks.¹¹
 7. As a result of the factors listed above, lending rates may increase even more than interbank rates, and there may be credit rationing. Perceived risk of lending will increase because of the increased risk of default and the increased uncertainty about the state of firms' balance sheets. The ability and willingness of the financial system to bear risk and to supply capital will be impaired.
 8. As a result, even firms that might otherwise have been able and willing to produce and sell more (e.g. increase exports as a result of devaluation) cannot obtain the finance to do so, or can obtain finance only at terms that make it unattractive for them to increase production.. There is some controversy over the importance of credit rationing (discussed in appendix B).
 9. There are a number of other supply side and demand side effects that appear significant in extreme cases, such as in East Asia. There may be supply side impacts on the transportation system, raising costs of production, and making it more difficult to export. On the demand side, the increased probability of default

¹¹ Stiglitz [?] has described how the government can provide finance for recapitalization of banks in a low cost way.

makes firms in the country unreliable suppliers, so that the demand for their exports may decrease, in spite of the large devaluation. The high interest rates combined with the devaluation may make the purchase of foreign capital goods more expensive; to the extent that foreign capital goods are complements with domestic capital goods, this will lead to a decrease in domestic aggregate demand (to the extent that they are substitutes, it could offset the adverse effects described earlier.)¹²

This analysis makes clear that the possibility of adverse effects of increasing interest rates markedly is more likely

- The greater the indebtedness of firms
- The greater the indebtedness of government
- The greater the impact of interest rate increases on asset prices
- The less the transparency of government, firms, or financial institutions
- The weaker financial institutions

Even when increasing interest rates does not lead to a capital outflow, and a further weakening of the currency, the net strengthening may be limited, since the increase in the risk adjusted expected returns will be far smaller than the increase in the nominal interest rate.

Note that there are some limiting cases where the adverse effects will be limited. If a government has little indebtedness and if firms traditionally rely on self finance (so they too have little indebtedness), then the short term capital market is relatively unconnected to the real economy, so the adverse effects may not arise.

There are some cases where there may be some positive effects. Increasing interest rates may lead some local businessmen who large amounts of funds abroad to bring their money back, as the cost of borrowing at home soars. In many cases, however, this effect seems weak, because of the lack of credible enforcement of bankruptcy. The owners, who may owe the bank considerable amounts, believe that the bank will not foreclose. The threat of exacerbating the economic disruption and the refusal of courts to enforce bankruptcy when the problems are viewed to be macro-economic problems beyond the control of the firm puts existing owners in a strong bargaining position. The bank would rather roll over the loan rather than to declare the loan non-performing. Thus, while the entrepreneur may not borrow more from the firm, neither will he risk more of his own money. He will play a waiting game, hoping that their will be a bail-out of some kind, at least a partial debt-forgiveness. Moreover, in many countries, the owners can engage in a process of assert stripping (or tunneling) diverting assets

¹² In the case of Mexico, and other countries, it appears that the cash flow effects, credit rationing, and the interest rate effects predominate, so that there market decreases in investment. See Perry et al

to their own account and away from the corporations, so that should the bank foreclose, there will be relatively few assets left.¹³

There is one other positive effect of increasing *deposit rates*: it increases incomes of savers, who then increase their aggregate demand. The question is, will the increase in deposit rates be translated into an increase in lending rates? And if so, how adverse an effect will this have on investment, and thus aggregate demand? In the case of Thailand, in 2001, the Thai government seemed to take the position that the positive effect of increasing deposit rates more than offset any possible adverse effect of increasing the lending rate, possibly because lending rates were set (as in the usual credit rationing models) to maximize (risk adjusted) expected returns, and were therefore relatively insensitive to deposit rates. While policy analysts should be aware of this possible effect, it would appear that in relatively few circumstances is it likely to be sufficiently large as to reverse the normal presumptions.

Assessing the adverse effects of devaluation

How much effort should the government put in in trying to stave off a large devaluation? What are the costs of a devaluation? A devaluation is, of course, nothing more than a change in the relative price of the currency, relative to other currencies. The effects depend on the balance sheet of the country: (a) If the country as a whole is heavily in debt to those abroad, the devaluation will increase the burden of the debt (measured in domestic currency), and this adverse effect on balance sheets of households and firms will decrease aggregate demand, decrease aggregate supply, and lead to higher nominal interest rates, to compensate for the increased risk. If the country is in a net creditor position (such as Japan), then the devaluation will have positive balance sheet effects, stimulating consumption, investment, and production. Malaysia's central bank had imposed restrictions that limited the dollar denominated debts of corporations, so that the adverse effects of devaluation there were likely markedly less than in country's with greater foreign exchange exposure. (b) To the extent that the debt is held by firms with an uncovered foreign exchange position, it will lead to an increase in bankruptcy. If the debt is held by exporters, then they gain in exports (in the present discounted value of future profits) some of what they lose on their formal balance sheet. If firms are rational and risk averse, then their exposure will be limited. But it is an empirical question. In the case of Thailand, the debt was heavily held by those in the real estate sector, where the bubble had already burst. These firms were already bankrupt, so that the *incremental* cost of devaluation was nil. (c) To the extent that the government is in debt, the devaluation will worsen its balance sheet. To the extent that the government derives revenue from natural resources, like oil, that are priced in dollars, the devaluation improves their balance sheet (and cash flow) measured in local currency. For resource dependent country, this effect can be important (cf. Russia, Venezuela)

These adverse effects have to be set against the positive effects, as well as the adverse effects associated with trying to prevent the devaluation. Among the positive

¹³ These problems occurred, for instance, in Ecuador.

effects are those associated with the increased exports. The importance of this effect will depend, of course, both the size of exports and the elasticity. The elasticity of exports (in the short and medium term) differs markedly across countries. Countries which face quotas may not be able to export more, but prices of these goods may be fixed in dollars, so that the revenues obtained (in local currency) may increase.

Assessing the long run adverse effects of attempting to prevent a devaluation

It is thus clear that the magnitude of the adverse (or positive) effects associated with large devaluations differ markedly across economies. But, as we have already noted, there can be large costs associated with attempting to prevent a devaluation, say by increasing interest rates. In addition, there are long run costs associated with government intervention, of any type. In particular, if those inside the country come to believe that if enough of them borrow in foreign currency, the government will bail them out or otherwise act to prevent a major exchange rate change, their incentive to purchase insurance against this risk will be reduced, and hence, the government's freedom of action (or, in any case, the costs of allowing the exchange rate to devalue will be increased.) This, in turn, will mean that there will be more economic volatility, and this in turn will mean that the country will be a less attractive place to invest. Moreover, it makes debt riskier, and given the absence of equity markets, this too will impair debt financed growth, forcing firms to rely more on self-finance. Thus the overall efficiency of the capital market will be impaired, and the rate of growth decreased.

There are particularly large long run adverse effects associated with relying on interest rates to prevent devaluations. The adverse effects of increasing interest rates persist long after the interest rates are reduced. There are important hysteresis effects. The high interest rates force some firms into bankruptcy, as we have noted, and lower interest rates does not unbankrupt them. There can be a permanent loss of informational and organizational capital, and if the bankruptcy procedures are prolonged, the asset stripping can even lead to the effective destruction of physical capital. But even firms that have not gone bankrupt will see their net worth eroded, and it will take a long time for that net worth to be restored. These adverse net worth effects have thus persistent impacts both on aggregate supply and aggregate demand.

Similarly, the high interest rates are likely to have adverse effects on the government's balance sheet, as it is unable to restrain expenditures to offset the higher costs of borrowing (and if it does, GDP falls even further). Moreover, if the government bears some of the costs of restructuring financial institutions and corporations which are forced into bankruptcy because of the high interest rate policy, as it almost surely will, then again the government's balance sheet will be adversely affected. Finally, for any given level of aggregate demand stimulation, the higher interest rates force greater reliance on fiscal measures, so that there is likely to be more government borrowing, again with adverse effects on the government's balance sheets.

Balancing off the costs and benefits

While the benefit of increasing interest rates may be limited, the costs may be large. The previous section spelled these costs—in terms of the weakening of the balance sheets of households, firms, and government. On the other hand, for some countries, the costs of a devaluation may be small—and in the case of some countries, there may be benefits. The evaluation of these costs and benefits has to be done on a country by country basis. Still, some generalizations emerge: the risks of the high interest rate policy (relative to the benefits) are large for countries with high levels of corporate indebtedness, such as those in East Asia; and the benefits of preventing a devaluation were likely especially limited for Thailand and Malaysia. In such countries, reliance on corporate bankruptcy proceedings (especially if there is a super chapter 11 provision) by itself may suffice to prevent an overly large devaluation. On the other hand, for countries like Brazil, in which firms have limited indebtedness, but in which the government has a high level of indebtedness, a high interest rate policy may have an especially adverse effect on the government's balance sheet, unless the government resorts to one of the low-cost ways of borrowing (associated with exploiting the possibility of segmenting the capital market), described below.

Equity concerns and the relationship between economic stability

While the analysis so far has focused on *aggregate* impacts, it has been clear that different policies impact different groups differently. Devaluations affect those who have large amounts of foreign debt; increases in domestic interest rates affect those who have borrowed domestically. Unemployment affects workers.

Normal social welfare functions associate higher social costs with adverse impacts on those who are poorer, and less capable of absorbing the shock. Thus, it stresses the costs on workers forced into unemployment or small businesses forced into bankruptcy more than the costs of large firms that might be forced into liquidation or foreign lenders that might not get loans fully repaid.

But there are two further dimensions: the crises in East Asia were, in some sense, *caused* by excessive borrowing in foreign denominated short term loans. There is a fundamental inequity in making innocent bystanders bear a disproportionate share of the costs, though they get none of the benefits. The lenders, had they exercised due diligence, would have restricted lending. The borrowers, had they acted prudently, would have bought cover for their foreign exchange exposure. In these cases, the bail-outs and attempts to maintain the exchange rate at a high level, not only induce an inequity, but induce a longer run moral hazard problem (attenuating incentives to engage in due diligence in lending or to obtain cover when borrowing.)

The second is that when citizens see billions of dollars going to bail out foreign banks, or the government borrowing billions to maintain an exchange rate at a high level, allowing the rich to take their money out of the country at more favorable terms, but are then told there is no money left for minimal subsidies for the poor, they perceive a grave injustice has been created, and this can give rise to political and social turmoil, and such turmoil

can make the country an unattractive place for investment. Perceptions about *fairness* cannot be separated from economic policy.

The Risks and Consequences of Overshooting

One of the arguments for government (IMF) intervention in the exchange rate market is that, left to itself, the market will overshoot. There are many examples of this (e.g. Brazil.) Note that overshooting, by itself, does not necessarily imply a market inefficiency; there is no theorem that says that efficient dynamics entails monotonic convergence.

Overshooting has one major benefit. With overshooting, the markets expectations are that there is likely to be an appreciation of the currency, and this allows domestic interest rates to be lower than they otherwise would have been. And this stimulates the economy. Moreover, the overshooting can lead to an upsurge in the demand for exports, again strengthening the economy.

The main worry about overshooting is that it will give rise to an inflationary episode. But if there is really overshooting, the market will come to expect an appreciation, which itself will serve to dampen inflationary expectations, and it is these inflationary expectations which lead to inflation inertia. The overshooting in Brazil did not lead to a significant inflationary episode.

c. Inflationary threat

More generally, one of the arguments against allowing the exchange rate to depreciate much is that it may give rise to inflation. The critical issues here are (i) the magnitude of the pass through and (ii) persistence. The first depends in part on the magnitude, the structure of the imports, and the competitiveness of markets. If imports are a small fraction of GDP, then the impact on overall inflation is likely to be small. If imports are mainly final luxury consumer goods, and markets are very competitive, then again the magnitude of the pass through may be limited. If markets are not very competitive, firms setting prices as a mark-up over costs, and the imports are at an early stage of production, then there can be significant pass through.

The persistence of the inflationary pulse depends on the inflationary process, including the nature of expectation formation. If individuals perceive the price adjustment as a one time event, then there is no reason that it would set off an inflationary spiral. On the other hand, the belief that the change would initiate inflation momentum can be self-fulfilling. Tightness in labor and product markets may affect this inflationary momentum. If the unemployment rate is high, then wages may not rise, even though workers see that their cost of living has gone up. If firms see themselves competing in highly competitive markets, then the opportunity for raising prices will be limited.

One case of continuing concern is that were the inflation leads to further devaluation, which gives rise to the expectation of future inflation, which gives rise to wage demands, which ensures that those expectations of future inflation are realized. The worry is that this can give rise to an ever increasing spiral of inflation. There are three separate issues, dealt with at greater length in the policy paper on inflation¹⁴: (a) Are there significant adverse effects on growth associated with moderate levels of inflation? The evidence is that there are not,¹⁵ and there is even some theory which argues that there needs to be some inflation for the economy to adjust smoothly to changing circumstances, changes which are particularly important in developing and transition economies. (b) Is there inflation momentum? Once inflation starts, does it pick up speed? Is there a “precipice”? Again, the evidence is that there is not.¹⁶ (c) Finally, if inflation does pick up, is it costly to reverse? Are these costs disproportionate with the benefits associated with the pick-up in inflation? That is, does the economy have to “force” a much higher rate of unemployment to disinflate a given amount than the lower rate of unemployment it enjoyed during the period in which inflation picked up? Again, the answer seems to be that the costs of disinflation are limited.¹⁷

Recent episodes, such as those in Brazil and East Asia show little evidence that even large devaluations will give rise to significant inflationary impulse.¹⁸

Note that for countries facing deflation pressures, the inflationary impulse may be a net benefit. Deflations can have adverse effects, increasing bankruptcy and corporate stress, as the real value of what is owed is larger than was “anticipated.”¹⁹

d. Trade Deficits

Many countries facing a crisis face not only a fiscal deficit, but a trade deficit. In some cases, IMF policies seem more focused on the trade deficit than on the fiscal deficit. In the case of Thailand, where the country clearly had a structural surplus, one of the arguments put forward for contractionary fiscal policies was that it was necessary to bring the trade deficit back into balance.

The existence of a trade deficit means, of course, that a country has to finance the trade deficit, which in turn means that there must be capital inflows. (There is a basic identity, that trade deficit = capital inflows.) There is a crisis if the country cannot finance its trade deficit.

The sense of crisis is quite different, of course, in a fixed exchange rate regime than in a floating exchange rate regime. In a fixed exchange rate regime, firms have the “right” to buy foreign exchange at a fixed price, to buy imports. If the supply of foreign exchange

¹⁴ cross reference

¹⁵ reference

¹⁶ references

¹⁷ reference

¹⁸ literature. Chart showing magnitude of devaluation, increase in inflation rate 12, 24, 36 months after devaluation.

¹⁹ Fisher (debt deflation), other references

(at those fixed prices) exceeds the demand, there is a problem, a crisis. But in a flexible exchange rate system, the exchange rate depreciates, making imports more expensive and exports cheaper. This naturally leads to a decrease in imports, and thus a decrease in the trade deficit. There is a crisis only if the required adjustment of the exchange rate is viewed to be excessive. It is the unwillingness to accept the requisite change in the exchange rate that a trade deficit represents a problem under a flexible exchange rate system.

Elsewhere in this report (references) we have discussed the costs and benefits of “large” exchange rate adjustments. We now turn to the question, if, for one reason or the other, the government does not wish to allow a full exchange rate adjustment, are there other mechanisms to which it can turn. But before turning to that question, we need to ask one other:

Are large trade deficits necessarily a problem?

Large trade deficits have traditionally been viewed as a serious problem, a precursor to a crisis, something that should be dealt with quickly. And there is ample experience suggesting that large trade deficits *may* be a problem. But there are circumstances in which it may not be, and an understanding of these circumstances is important for thinking through alternative ways of reducing trade deficits.

Two examples illustrate the kinds of situations where trade deficits, even large trade deficits, may not represent a problem. In 2000, Iceland ran a large trade deficit, close to 9% of GDP. The deficit was not caused by any government intervention in the market, but rather by consumers’ demand for cars, combined with the willingness of foreigners to finance the car purchases. Presumably, when the stock of cars has been fully adjusted to the desired level, the surge of imports will end, and with that the deficit. If foreigners lose confidence in the ability of those in Iceland to pay back the loans, they will stop lending, and those in Iceland were then reduce their importation of cars. The credit is linked directly with the car purchases.

The second is where a country borrows to finance an investment, and the investment yields a return far in excess of the interest which it has to pay. This would typically be the case for private investment—why otherwise would firms borrow (unless there is some form of hidden government guarantee)?

The standard criticism of large trade deficits is that they are not sustainable. Countries cannot continue to borrow year after year to finance an excess of imports over exports. The situations described represent situations where even though the country may do so for an extended period of time, there are, in a sense, automatic adjustment mechanisms. When Iceland became saturated with automobiles, its demand for automobiles would decrease, and the capital inflows required to finance them would similarly disappear. Countries financing imports of productive capital goods will grow, and eventually will be transformed from borrowing countries to countries which are repaying the loans. These are part of the natural evolution of the economy.

The systemic problem of deficits

Deficits are, in a sense, endemic to current economic arrangements. The sum of the surpluses in the world must equal the sum of the deficits, and if China and Japan insist on having surpluses, then, in aggregate, the rest of the world must have a deficit. When Korea reduces its deficit, it must show up as an increase in the deficit of some other country.

Alternative ways of addressing trade deficits

Trade deficits are also equal to capital inflows, and capital inflows are equal to the difference between domestic investment and domestic saving. *At full employment*, this means that the trade deficit can only be lowered by lowering investment or increasing domestic saving, and domestic saving can only be increased either by government increasing its surplus (reducing its deficit) or by the private sector increasing its savings. The most obvious way of addressing a trade deficit is for the government to reduce its fiscal deficit, but this is not the only way, and in many cases, alternatives make far more sense.

In the case of Thailand, for instance, there was a huge need for public investment (roads, education). The private sector was clearly overinvesting in real estate. The government could have dampened this overinvestment by a variety of mechanisms, e.g. tax policy (an increase in capital gains taxes, a tax on empty office buildings) or banking regulatory activity (restricting lending for real estate.)

In the case of Iceland, the government could have imposed a tax on automobiles, which might have reduced the demand for automobiles, with some of what would have been spent on automobiles going into savings.

Alternative ways of supporting the exchange rate

The above macro-identity is sustained through an equilibrating adjustment of exchange rates. If the government wants to limit the extent of the devaluation, there are means other than increasing interest rates which it may employ. For instance, it can try to restrict imports (e.g. by imposing excise taxes on commodities which are imported or which have a large import content), or to encourage exports (through preferential access to credit.) The government can redirect some of its own expenditures to less import intensive areas (technologies). While critics might say that this introduces an inefficiency in the economy, the whole argument that the government should be concerned about the exchange rate is predicated on the belief that there is some market distortion, some reason that competitive market determination of exchange rates will not lead to efficient resource allocations. *If that is the case*, then it makes sense for the government to think of a whole panoply of interventions by which the exchange rate can be supported (in effect the shadow price of foreign exchange is not equal to the market price).

The argument that such interventions lead to economic inefficiency and should therefore be avoided has to be balanced against the arguments put forward earlier that large devaluations impose large costs, and that other instruments intended to limit devaluations themselves impose large distortions on the economy—including leading to massive underutilization of resources.

B. Alternative scenario: Avoiding Default

The scenario just described assumed that the government was willing to impose a standstill, in effect to default on its debt. We began with that scenario, because it, in some sense, it presented the greatest risk. Yet a close examination of the arguments suggested that the adverse consequences were greatly exaggerated, compared to the benefits. In this section, we enquire what governments might do short of such a default. The easiest case is that where they have access to collateralizable assets

Borrowing against the future

Such is the case for a country, like Bolivia, that has the potential for large revenues associated with natural resources. Given the disparity between borrowing and lending rates, it makes sense for most such countries to create a stabilization fund, which they can draw upon in the event of an economic downturn. But even when countries have not had the opportunity or foresight to do that, it makes sense for them to borrow against their future income. As a back of the envelope calculation, assume that they spend \$100 million on an investment, and the multiplier is two. The investment yields a 10% return on its own, but in addition, there is a 100% social return as a result of the utilization of underutilized resources. This can be looked at another way. Assume that the investment entails 10% foreign exchange. The opportunity cost of the rest of the resources (the domestic resources) is zero. Hence, with the *real* resource cost but a fraction of the market price, the rates of return are phenomenally high.

There is a further advantage: later, when the economy has recovered, it will be worried about currency appreciation resulting from the inflow of capital (the Dutch disease problem). It will want to modulate the flow of capital into the capital. It does this by spreading the inflows over time—by borrowing against future income.

Thus, even if the implicit interest rates that it has to pay are quite high, it makes sense to borrow against the future to finance deficits that will restore the economy towards full employment.

Low cost domestic borrowing

There are ways, however, that governments can obtain low cost financing even when they do not have natural resources to sell forward. One is through the domestic banking system. If there is excess liquidity in the banking system, as there often is in a recession, increasing reserve requirements can increase the seignorage that the government obtains,

without have an undue adverse effect on the private sector. Similarly, the government can require banks to hold a certain amount of government paper, and this requirement will lower the costs of government borrowing. It could require them to hold a certain amount of zero coupon government paper. Under standard accounting, this would reduce the government outflows, but under mark to market accounting for banks, the increase in the value of the bonds over time would show up as income. The government could also borrow directly from the Central Bank at a low interest rate.

The objection that such interventions lead to inefficiency in the allocation of capital is misguided. It fails to distinguish between infra-marginal lending and marginal decisions, and it fails to note that capital, in any case, is not allocated by means of an auction market or its equivalent.

Of more concern is the worry about inflation. If the government borrows from the Central Bank, for instance, money is being created. The increase in money, of course, need not be inflationary; after all, since the economy by assumption has large excess capacity, the increased aggregate demand could simply be reflect in increased output.

The simple monetary equation $MV = PQ$ provides a framework which is often used to assess inflationary pressures. If the velocity is constant, the increase in money will be inflationary if the percentage increase in the money supply exceeds the percentage increase in output. In the multiplier is 2, and output is 5% below capacity, then a deficit of 2 ½% of GDP would suffice to restore full employment. If $M/PQ = .5$, this means that $\Delta M = .025 \text{ GDP}$, or $\Delta M/M = .05$, which is exactly equal to the increase in GDP, so there are no inflationary pressures. If monetization in the economy is very small—less than .5, then there will be inflationary pressures *if V is constant*. But in such economies, money typically does not play the role it does in more advanced industrial economies, and there is little reason to believe that V will be constant. Moreover, the government can control the spread between deposit rates and, say, T bill rates, so that the willingness to hold money increases (velocity is reduced), so that the monetary expansion is not inflationary. It should be clear, however, that in low monetization economies, there are risks of the government not confronting the issue. If they believe that inflation is going to increase, their willingness to hold monetary assets will decrease, so that velocity increases, exacerbating the inflationary pressures. If the movement out of money leads to increases in prices of producible goods, then aggregate demand will increase, and the extent of deficit that the government needs to restore the economy to full employment will be reduced. But this need not be the case, e.g. if the movement out of money leads to increases in prices of land. But then the inflationary pressures may be felt more in such asset prices than in the price of produced goods, so that inflation (as conventionally defined, e.g. the consumer price index) is relatively little affected.²⁰

²⁰ The conventional analysis assumes that money is just used for income generating activities, not asset transactions, and assumes that money is non-interest bearing. It also assumes that all transactions are mediated by means of money; ignores the role of credit. None of these assumptions are correct, providing part of the explanation for the observed instability in V in many countries. Government interventions can affect all of these variables.

Moreover, to the extent that the government can succeed in stimulating the economy without financing a deficit through monetary emissions (see below), GDP increases without an increase in money supply, and this will be deflationary. Thus, the government can pursue a balanced course, financing a substantial deficit, without incurring large inflationary pressures.

When measures are taken to discourage speculators by raising interest rates, the overall social costs of such measures can be ameliorated by taking advantage of the possibility of market segmentation. Thus, the government could impose a tax on short term lending for speculative purposes, but exempt longer term lending and lending for purposes of trade. While there is likely to be some “leakage,” with some borrowing allegedly for trade purposes being used for speculative purposes, provisions which would impose high taxes on large increases in lending (unaccompanied by large increases in imports or exports) would surely dampen borrowing for speculative purposes almost as much as an increase in interest rates, without the adverse macro-economic effects.

As the economy expands towards full employment, there will be an increase in the demand for imports, and some exports may be “crowded out,” leading to a deterioration of the exchange rate. The magnitude of these effects can be

Low cost stimulus

The government can also restructure its programs to provide large stimulus to the economy at low budgetary cost. Direct government lending programs may be particularly effective when firms face credit constraints. Such programs can lead to large increases in expenditure and income with no budgetary cost. Net investment tax credits provide high marginal incentives with low budgetary costs. Linking longer carry-back provisions with investment (so that only firms that increase investment are entitled to longer carry-back provisions) simultaneously improves the efficiency of the tax system (since in principle there should be long lived carry back and carry forward provisions) and at the same time provides a strong stimulus at relatively low cost. Unemployment insurance programs typically provide money to those who otherwise would have been forced to cut back consumption.

Some countries may be able to avoid a crisis, and avoid having to use standstills and defaults, by borrowing against future income, by restructuring their borrowing, to rely more extensively on low budgetary costs of borrowing, and by restructuring expenditures and other programs to employ some low cost stimulus measures. Given the seeming risks associated with standstills and defaults, we suspect that most countries that can employ such measures would be advised to do so, before turning to the actions described in part A.

Systemic Responses

The arguments given so far look at the consequences from the perspective of an isolated country. But the international community has to be sensitive to wider ramifications. We describe these briefly below.

Contagion and competitive devaluation

One of the arguments against allowing devaluation is that it will lead to contagion. The evidence on that is weak (e.g. neither Brazil nor Argentina led to contagion)—and the theory is even weaker. There is no apriori reason to believe that an intervention in Indonesia that supports that country's exchange rate should shift the demand curve for another country's currency in a way which is stabilizing. There are even reasons to believe that such interventions could have adverse effects, within a rational expectations model.²¹

Contagion did occur in the context of Russia, and the mechanism, through balance sheet effects on particular firms that were active in other emerging markets, is very special, and is unlikely to occur more generally.

There is a form of contagion that arose from the deflationary/recessionary policies, when pursued in more than one country, as these measures have adverse general equilibrium effects through the usual trade channels (including through effects on prices of traded commodities.)

The argument concerning fears of competitive devaluations are also, for the most part, exaggerated. The devaluations represent changes in exchange rates relative to hard currencies, such as the dollar. If other neighboring countries devalue, it may reduce the competitive advantage that a country has vis a vis its neighbors, but it will still typically have the desired effect, because even when they all devalue, they will export more to the advanced industrial countries and import less.

Moral hazard and induced speculation

We have already drawn attention to the systemic effects associated with bail-outs: the reduced incentives for due diligence in lending and reduced incentives by borrowers to obtain cover for foreign exchange fluctuations.

Speculation, which has been at the center of some of the exchange rate fluctuations, with their adverse macro-economic impacts, also is fed by the interventions. Such (destabilizing) speculation would be a zero sum (risky) game were it not for government intervention. The bail-outs provide the funds that feed the speculative sharks.

Increased default premia

There is a concern that if many countries pursue the strategy described in A., interest rates to developing countries will increase, because of the fear of default. But we have

²¹ Stiglitz reference

suggested that the social cost associated with these debts is high, and reduced borrowing that may result from higher interest rates may in fact be good economic policy over the long run. This is especially the case where the funds do not go to finance high return investments.

Collateral Problems

Unfair contracts

In some cases, the economic plight of the country has been aggravated by contracts which are, or would appear to be, unfair. For instance, corrupt governments have sometimes signed take-or-pay contracts at high prices, which in effect transfer large amounts of money abroad. Sometimes such contracts may have been signed simply as a result of bad advice. In any case, crises represent occasions for renegotiations of such contracts. Under the current regime, where governments have sometimes provided sovereign guarantees through the MIGA (the World Bank), government's ability to renegotiate may be greatly impaired. While governments undoubtedly need to take that into account as they proceed, the international community needs to think more carefully about the nature of the guarantees that are provided.

Bank Runs

Several countries have had their downturn exacerbated, if not precipitated, by a lack of confidence in the banking system, leading to larger transfers of money abroad, reducing the availability of credit. The broader issues of regulating banking systems will be addressed in another paper; here, we simply note that the government needs to be aware of the impact of policies on the stability of the banking system, and it must be ready to take appropriate measures.

Summary

The analysis of this paper has identified a number of country specific factors which are relevant in determining the answer to the question of how the country should respond to its economic slowdown. Even when there is detailed knowledge of the particular situation of the country, there remain a number of uncertainties, for instance, concerning the reaction of domestic and foreign investors, and the price setting behavior of firms. No policy is free from risk. Key issues involve the magnitudes of the risks, and who bears them. It would appear from the above analysis that for most countries, the risks associated with following the standard IMF austerity response is far greater than the risks associated with alternatives. For countries that can gain access to foreign capital markets or restructure debt, to reduce the interest rate burden, the resources freed may provide the requisite finance for expansion fiscal policy. For countries with large private foreign indebtedness, making more extensive use of bankruptcy, especially a super chapter 11, may be an important part of the response strategy. For countries that can

administer effectively exit taxes and are willing to bear the criticisms of the financial markets, with the possible cut off of supply of credit, the imposition of such taxes (or other interventions that control the outflow of capital) would appear to be advisable. Even with an involuntary debt restructuring, countries can regain access to international banks relatively quickly, but countries should carefully weigh the costs and benefits of international indebtedness. For many countries, especially those with moderate savings rates, the costs—when viewed over the longer term—may well outweigh the benefits, and policies designed to limit the inflow of especially short term capital may be desirable.

Warding off problems

We have noted several of the factors which have made adjustment to the decline in exports more difficult. A heavy level of indebtedness is one factor, but heavy indebtedness in foreign currency makes matters even worse. In the case of Russia, as the country faced increasing problems, it was encouraged by the IMF to borrow in foreign currency, because the interest rate was so much lower. Of course, however, if the IMF had believed in well functioning capital markets, in which interest rate arbitrage occurs, it would have recognized that the difference between the two represented the actuarial value of the devaluation (plus an estimate of the difference in default probabilities between domestic and foreign denominated loans.) An appropriate accounting framework would have “scored” the extra contingent liability associated with the dollar or mark denominated bonds, but as is so often the case with standard macro-accounting frameworks, they provide inadequate information for judging the country’s economic circumstances (though to the extent they come to be taken seriously by market participants, the incomplete information can have real effects; those lenders might be fooled into thinking the country’s financial position was better with foreign-denominated borrowing than with domestic borrowing; in the case of Russia, this does not appear to be the case. Only the IMF seems to have been fooled. There is also (an admittedly) risky political economy argument: that the higher level of foreign denominated indebtedness, by making a devaluation more costly, reduces the likelihood of a devaluation; and given that, it lowers the risk premium on domestic bonds. But it also means that, should a devaluation be deemed necessary, the requisite size of the devaluation to restore balance will be larger—since the benefits on the export side are offset by the costs on the balance sheet side—or the magnitude of the default will have to be larger, and all of this increases the risk premium).

Similarly tying the exchange rate to the dollar (as Argentina did) represents a triple hazard: first, it eliminates one of the important adjustment variables, forcing larger adjustments in other variables. Second, it means that when the US increases interest rates, the country will be adversely affected both directly—as those interest rate effects get passed on to all other markets; but also indirectly, as the dollar appreciates. But as the dollar appreciates, it means the sustainability of the peg becomes more questionable, and so the risk premium associated with a potential devaluation increases.

Policy regime change

The analysis here was predicated on the IMF's providing funds conditional on the countries imposing contractionary fiscal policies. There is an alternative scenario, in which the IMF returned to its original mission of providing deficit financing for countries facing an economic downturn. In that case, we might envision the following outcomes: Given the additional financing, the economy expands, closer to full employment. Given that the country was assumed to have a zero structural deficit, as the economy returns to full employment, its need for borrowing decreases. It borrowed a large amount—5% of GDP—so that its debt GDP ratio has increased to 45%. Small adjustments in taxes and expenditures allow it, however, to finance these extra interest payments, and its ability for managing its way through the economic downturn has increased investor confidence, so that the economy's growth is enhanced.

CONCLUDING REMARKS

Developing countries have, as a whole, had pro-cyclical fiscal policies, not because they have not understood the basics of Keynesian economics, but largely because they often have found it difficult to obtain finance, they have turned to the IMF, which has forced them to undertake pro-cyclical policies, and they have been afraid of taking some of the stronger measures discussed in this paper. This paper has set forth a set of policies which are an alternative to the standard IMF prescriptions. It has tried to delineate the circumstances under which such policies could be easily implemented, outlined the risks, and provide a framework for thinking through how these risks can be assessed relative to the risks of the standard IMF strategies. At the very least, it should be clear that there exists alternatives, and that the impacts, including the risks, of the alternatives presented here on different groups is markedly different from that of the IMF strategy. The IMF policies are not pareto dominant. And given that that is the case, the choice of alternative strategies should be a matter which should be addressed by the country's political processes, neither delegated to outsiders, such as the IMF, or relegated to particular insiders, such as the finance ministries or central banks. The responsibility of outside advisers is to present as clear a depiction of the alternative strategies, the risks, who benefits and loses, and who bears the risks, as they can. That has been the intention of this paper.