The Dollar and the Policy Mix Redux¹ Barry Eichengreen and Yung Chul Park March 2004

1. Introduction

One thing that can certainly be said about the recent debate over exchange rates and global imbalances is that it has generated more heat than light. What that discussion lacks in coherence it makes up for in intensity. Thus, the United States has rightly abandoned its strong dollar policy in order to address its gaping current account deficit. Or no it hasn't, and it has no reason to do so given that its current account deficit is perfectly sustainable courtesy of Asian central banks' insatiable appetite for dollar reserves. Asia should abandon its strategy of undervaluation sustained by foreign exchange market intervention and massive accumulation of dollar reserves and let its currencies float upward in order to share the pain of eliminating global imbalances. Or no it shouldn't, since curtailing its accumulation of dollars and allowing its currencies to float would mean capital losses on its reserves, higher interest rates and weaker demand in its principal export market (the United States), and undermine its strategy of export-led growth. Europe should restore fiscal discipline by rebuilding its shattered Stability Pact, and the ECB should cut interest rates in order to prevent the appreciation of the euro from getting out of hand. Or no it shouldn't: the continent is better off now that it has put this pro-cyclical engine of fiscal perversity behind it and that it has a European Central Bank that is serious about price stability.

In this paper we argue that this exchange-rate-centered debate has been inconclusive, even counterproductive, because it has not focused on fundamental

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problems, concentrating instead on symptoms. Those fundamental problems are the policy mix in the three regions.

- In Asia ex Japan, monetary policy is too loose while fiscal policy is too tight.² This combination encourages inefficient investment and periodic property-market overheating. The explanation is that the region remains wedded to a strategy of export- and investment-led growth predicated on low exchange rates and low interest rates and that it is reluctant to contemplate larger budget deficits, having just eliminated the involuntary deficits forced on it by the financial crisis of the 1990s.
- In Europe, the problem is the opposite: fiscal policy is too loose while monetary policy is too tight. The villains in this case are structural reform making for an interim period of slow growth, which limits the expansion of government revenues; political pressure for social spending, which limits the scope for cutting expenditure; and a new-minted central bank playing a noncooperative game with national fiscal authorities.
- In the United States, the problem is that fiscal policy is so loose and projected to remain loose for so long that the Fed will have to raise interest rates further and faster than is healthy for the economy if the dollar continues to fall. An overly loose fiscal policy and excessively tight monetary policy are the opposite of what the economy needs if its productivity miracle is real. They are an inversion of

 $^{^{2}}$ As will be clear, the Japanese case is special, and very different from that in the rest of Asia. Among other things, this is one reason why we are skeptical about the advisability of a collective currency peg for Asia, since basic economy logic suggests that macroeconomic policies and therefore exchange rates must move in opposite directions in Japan and the rest of the region. Unless explicitly stated to the contrary, when we refer to Asia below, we should be understood as meaning Asia ex Japan. We also discuss the Japanese case in more detail at the appropriate point.

what the Fed and the Administration should be doing in order to encourage the private investment needed to exploit the growth opportunities afforded by surging productivity growth.

Recent movements in exchange rates should be seen as symptoms of these problems with the policy mix. The dollar is falling because investors forecast U.S. budget deficits as far as the eye can see. They anticipate that the portfolio effect that pressures the dollar to decline in order to limit the value of the U.S. treasury securities that international investors have to add to their holdings will increasingly dominate the domestic aggregate demand effect of the deficits that initially worked to push the dollar up. And what participants in the foreign exchange market anticipate for the future has a tendency to start happening now. Asian currencies are not rising because Asian central banks are intervening in an effort to preserve export competitiveness. The euro is rising strongly against the dollar because European fiscal policies have burst their Stability Pact bounds, rendering the ECB reluctant to cut interest rates. In all three cases, then, exchange rate movements are symptoms of these deeper problems, not causes in and of themselves.

Adjustments in the policy mix in all three regions would go a long way toward resolving this problem of macroeconomic imbalances and be beneficial for each of these regions. In the U.S., addressing the fiscal problem now would obviate the need for a much tighter monetary policy later. It would moderate how far the dollar had to fall in order to limit the country's current account deficit, thereby relieving the pressure on the Fed to significantly raise rates as the weaker exchange rate begins to translate into higher prices. It would relieve the pressure felt by Asia and, most especially, Europe. It would

also make for a more investment-friendly environment than the combination of loose fiscal policy and tight monetary policy that will otherwise be inevitable down the road, enabling the economy to better exploit the private-sector investment opportunities created by its surging productivity.

In Asia, curtailing foreign exchange market intervention would cause exchange rates to rise, but growth would not necessarily suffer if fiscal policy was used to provide macroeconomic support. The resulting allocation of resources between traded- and nontraded-goods sectors would be more efficient. Threats to the stability of local financial systems due to lending for property-market speculation and would be less.

In Europe, tighter fiscal policy in combination with more relaxed monetary policy would make for a more competitive exchange rate and a more investment-friendly policy mix, especially if deficits were cut by curtailing public spending (instead of via further increases in an already heavy tax burden). With more investment in technology and capacity, European growth could get back on track.

Before elaborating this argument, we should explain how it relates to three existing literatures. First, there is a literature criticizing efforts by policy makers to manage exchange rates and arguing that currency movements are a symptom rather than a cause of macroeconomic problems. A recent statement of this view is Calvo and Mishkin (2003). We are squarely in this tradition.

Second, there is a series of articles by Dooley, Folkerts-Landau and Garber (2003, 2004) arguing that the current constellation of policies does not pose a problem for the world economy. The United States, as the leading supplier of international reserves and the leading market for exports of other regions, can run current account deficits

indefinitely because Asia is happy to finance them. Asia must export in order to grow, and not continuing to buy the U.S. treasury bonds that indirectly finance those exports would be to bite the hand that feeds it. Europe may be in a more difficult spot, but it is a side-show.³ Its residents have shown a remarkable tolerance for slow growth; there is no reason to think that their political capacity to do so will be more limited in the future than the past. This perspective suggests that there is no reason why the current constellation of current account balances and capital flows, and therefore the current policy mix in the U.S., Asia and Europe, cannot be sustained indefinitely.

Our view is more in line with Stein's law, the late Herbert Stein having famously remarked that "something that can't go on forever generally won't." We think that failure to adjust the policy mix may lead to uncomfortable asset price movements sooner rather than later, compounding macroeconomic difficulties in all three regions.

Third, our title recalls at least two earlier articles with the title "The Dollar and the Policy Mix." The first, by Robert Mundell (1971), appeared around the time of the breakdown of Bretton Woods. Mundell argued that adjustments in the policy mix were needed to restore order to the international monetary system. The United States needed to commit to tightening monetary policy to defend the dollar, but there was no reason why this needed to precipitate a serious recession if fiscal policy was used to provide macroeconomic support.⁴ The second, by Jeffrey Sachs (1985), was written as the industrial world was settling into the international monetary regime that succeeded Bretton Woods. The U.S. had used a combination of tight monetary and loose fiscal policies to bring down the inflation to which it had succumbed in the late 1970s while at

³ One recalls the late Rudi Dornbusch referring to it as one big theme park.

⁴ Mundell's recommendation is not unlike what we recommend for Asia now, although the context there is strong currencies rather than a weak one.

the same time recovering robustly from the early-'eighties recession. The question was whether this policy mix, which achieved the desired result by driving up the dollar, was facilitating adjustment in the United States at the expense of the rest of the world.

We write in this tradition as well although, compared to 1971 or even 1985, the world economy is now a more multi-polar place. The dollar may still grab most of the headlines, but now the policy mix matters not just in the U.S. but also in Asia and Europe. Our analysis and therefore the organization of our paper reflect this fundamental fact.

2. Asia

Much of Asia has been maintaining a mix of loose monetary policy and tight fiscal policy, although the point is not usually put this way. A more conventional statement would be that central banks are intervening heavily in the foreign exchange market in order to prevent their currencies from rising against the dollar (Table 1), while governments are committed to fiscal prudence. But it is important to recognize that this set of policies implies a loose monetary stance. U.S. monetary policy is loose – we saw in Section 2 that the Fed cut the federal funds rate to unprecedentedly low levels in response to the recession at the beginning of the decade, a process that it has not yet begun to unwind, and that U.S. treasury yields remain at historically low levels. A basic proposition of international finance, "the trilemma," states that if capital is mobile and exchange rates are pegged, then central banks must take the level of interest rates as given. Since Asian exchange rates are de facto pegged to the dollar, this means that Asian economies effectively see their money and credit conditions dictated by the United

States. The massive accumulation of international reserves by Asian central banks is indicative of this fact (Figure 1). The low level of interest rates in the United States makes for capital flows to Asia, flows that will continue until yields in the region fall (Table 2). As the dollars flow in, they are converted into local currency by the central bank, which holds the dollars that it thereby acquires as reserves.

A qualification to this proposition is that capital markets in the region are not yet completely open, giving central banks some leeway to set monetary policy independently. But even countries with some controls on capital flows still feel strong effects from U.S. monetary policy given how tightly their exchange rates are linked to the dollar.⁵ Even China, the Asian economy with the most extensive capital controls, enjoys only limited monetary autonomy. In 2003 supplies of both money and bank credit rose by approximately 20 per cent. But there was relatively little that the People's Bank of China could do about this so long as it remained committed to the currency peg. It issued sterilization bills to mop up the undesired increase in money and credit, but this intervention, by draining liquidity from the financial system, only attracted additional inflows from abroad.⁶ This is evidence of the limited effectiveness of sterilized intervention even in an economy with residual controls. Similarly, raising reserve requirements on the banks as was done in September 2003 will tend to drive up domestic interest rates, other things equal, but again doing so will only attract additional capital from abroad, given the fixity of the exchange rate and the porousness of the capital account.

⁵ This is also the finding of econometric studies such as Cheung et al. (2003).

⁶ In addition, Chinese commercial banks became reluctant to buy the central bank's bills at prevailing interest rates, where those interest rates are largely determined by world conditions according to our argument. See the discussion in *Financial Times* (30 December 203, p.10).

The explanation for Asian policy makers' attachment to their currency pegs is well known. They are part and parcel of the policies of export-led growth that have long been at the center of the region's development strategy. Using a pegged (some would say undervalued) exchange rate to promote exports helped to relax the balance of payments constraint that otherwise limited imports of capital goods and licensed technology. Keeping real exchange rates low compressed the rate of growth of consumption, freeing up resources for capital formation. Tight capital controls ensured that the resulting savings were invested at home, while tight domestic financial regulation (including the channeling of savings through postal savings systems) saw to it that the resulting resources were deployed in the traded-good sector. That traded goods sector was the locus of learning by doing and that imported capital goods embodied the new technologies which were the source of positive spillovers provided rationales for these interventions.

In pursuing this strategy China is following in the footsteps of the NIEs, which themselves followed in the footsteps of Japan. This is all by way of saying that policy makers' attachment to this strategy is no coincidence; they are attached to it because for many years it worked so well. But the reality is that many of the preconditions allowing this strategy to work are no longer in place. The traditional traded-goods sectors are no longer the sole source of learning effects and positive spillovers. Increasingly, the sources of spillovers are activities like software development, back-office services, and financial intermediation. The case for targeting traded-goods-producing sectors is less compelling; growth will therefore require balanced investment in the production of nontraded as well as traded goods. Asian countries will have to invest more in higher

education (itself a service sector). They will have to invest more in urban amenities in order to attract and retain knowledge workers.

Moreover, as financial markets and institutions are deregulated, there is no longer a guarantee that the high savings that are a corollary of undervalued real exchange rates and slow real wage growth will be channeled into investments in equipment and capacity in the export sector.⁷ Let us be clear: we are not questioning the desirability – indeed the necessity – of significant financial liberalization in Asia. But as economies in the region approach the technological frontier, it will be harder for them to advance through government policies that encourage funds to flow to the same sectors developed by the technological leaders when the latter were themselves still engaged in catch-up and convergence. And, as the world continues becoming more complex, it will become harder still for governments to pick winners. This is what financial markets are for, which is why financial liberalization is important.

But financial liberalization also heightens the sensitivity of economies to other distortions, as became apparent in Asia in the second half of the 1990s. If the level of interest rates or the real exchange rate is wrong, serious misallocation of resources can result. In particular, lax credit conditions can encourage the flow of resources into construction and real estate speculation, heightening financial risks. At the moment there is ample evidence of this in Beijing, Shanghai, Seoul, and other Asian cities. In reality this is just a replay of the problems that arose in Bangkok and elsewhere in the mid-1990s, the first time Asian countries sought to pursue policies of export-led growth based on undervalued exchange rates in a significantly liberalized financial environment.

⁷ National savings rate obviously depend on many factors in addition to those on which we focus here. But there is an historical association between the high share of profits in national income that results from real undervaluation, on the one hand, and high savings and investment rates, on the other.

All these are reasons for thinking that the traditional model of export-led growth based on an undervalued exchange rate is encountering diminishing returns. But Asian policy makers remain reluctant to allow their exchange rates to move and to thereby decouple monetary conditions from those in the rest of the world. In fact, doing so would enable them to better address the risk of financial bubbles in the real estate market and elsewhere. If this resulted in a better balanced pattern of investment between the traditional export sectors and sectors producing nontraded goods, this would not jeopardize learning effects, spillovers and productivity growth. To the contrary, there is reason to think that it would make for healthier and more sustainable growth.

China is clearly the major Asian economy where export-led growth still has longest to run. If there is a case anywhere for continuing past policies of pegging the exchange rate at highly competitive levels in order to absorb labor into industry and boost exports of manufactures, this case is strongest in China where there are as many as 200 million rural workers still to be absorbed by the modern sector. Yet even in China, the costs of not being able to tailor money and credit to local conditions are becoming clear. M1 and the supply of bank credit are continuing to expand rapidly, as noted above, and the authorities have limited ability to rein them in given the pegged exchange rate and increasingly porous capital account. This fuels property market speculation and hampers efforts to raise bank lending standards. Restoring balance to the financial system and preventing the economy from overheating will require the authorities to hike bank lending rates and allow the currency to rise. We do not have a forecast of the amount by which the currency will have to appreciate in order to cool off the Chinese economy; the extent of the appreciation will be endogenous, even if it is heavily managed through

central bank intervention (as it should be). But a managed float or significantly wider bands for the exchange rate, which amount to pretty much the same thing in Chinese circumstances, are needed to restore balance to the financial system and the economy.⁸ In seeking to peg the currency and tighten money and credit at the same time, the Chinese authorities are attempting to have their cake and eat it too.

Asian policy makers have reservations about allowing exchange rates to rise. They worry that exports would slow first and other forms of demand would pick up only later, leading to a recession or at least an undesirably sharp slowdown in the interim.⁹ This is where fiscal policy comes in. Deficit spending is the obvious way of supporting demand in the period when a stronger exchange rate makes for slowing export growth but other sources of private demand have not yet picked up. This is why we argue for a change in the policy mix that would couple a looser fiscal policy with tighter monetary policy.

Two arguments are commonly invoked in Asia against using fiscal policy for a temporary boost in demand. First, policy makers associate deficits with the crisis of the 1990s, which was the first time when many Asian economies experienced serious fiscal imbalances. But those deficits were a consequence, not a cause, of the crisis; there were few signs of fiscal profligacy in the period prior to 1997. Transitory deficits, where the

⁸ Thus, we do not see a step revaluation of, say, 25 per cent as solving the long-run problem facing the Chinese authorities, which is to gain the capacity to tailor money and credit conditions to local needs. It will not be possible for them to resort repeatedly to step revaluations (or devaluations), given the increasing porousness of the capital account and the tendency for market participants to act in anticipation of such actions. A heavily managed float, with or without bands significantly wider than the present plus-or-minus 0.3 per cent, is a better alternative for conferring the necessary monetary control.

⁹ We would note that to some extent this is a peculiarly Korean concern; growth prospects in Korea are weaker than those in Asia-ex-Japan as a whole, reflecting the crisis in the credit card industry, political uncertainty, and other distinctively Korean problems. Growth is increasingly dependent on exports, given the rise in consumer debt and the consequent weakness of household demand. To put the point another way, Korea is least well placed to absorb the transitional effects of a tighter monetary policy, given the already-existing problems in the consumer-credit industry.

IMF and national governments allowed them to emerge, helped to stabilize demand once the crisis struck. The desire to avoid a replay of 1997-8 is not a sound reason for opposing fiscal expansion now.¹⁰

Second, there are worries that increased public spending will translate into more gigantic airports, more underutilized bridges, more expensive high-tech train systems, and more environmentally destructive dams. More public works spending will mean more rent seeking, more efforts to buy the support of politicians, and more corruption.

If so, this is an argument for fiscal stimulus in the form of a temporary cut in taxes rather than an increase in public spending. Households rather than politicians and bureaucrats would then be allowed to decide on the form of the additional spending. Recent U.S. experience shows that even a tax cut foreseen as temporary can have significant effects in stimulating demand.¹¹

Painting the region with such a broad brush runs the risk of overlooking differences across countries. But these can be readily added to the analysis. The argument for fiscal expansion to offset some monetary tightening is strongest in the cases of Korea, Malaysia, Thailand and Taiwan. Indonesia and the Philippines, in contrast, suffer from major inefficiencies on both the tax and spending sides of the budget and are saddled with serious debt problems; there is reason to worry that fiscal expansion there would neither enhance confidence nor stabilize demand. (On these contrasting fiscal positions, see Table 3.) In the case of China, the economy's very rapid growth (raising

¹⁰ To the extent that policy makers worry that the public may wrongly associate fiscal deficits with economic problems, and react to them negatively, this is an argument for educating households and firms about the appropriate use of fiscal policy, not for shunning the instrument.

¹¹ A widely-heard objection to this argument is that households would devote their additional disposable income to consumption rather than investment. But if the point of the fiscal expansion is to prevent growth from slowing and the economy from slipping into recession, then there is nothing wrong with this. And more consumption by households is presumably preferable to more inefficient investment spending by the public sector (see the next paragraph).

fears of inflation and overheating), in combination with the very high imported-input content of exports, suggests that no fiscal adjustment is needed to offset a tighter monetary policy. This is fortunate insofar as any fiscal stimulus in China would likely take the form of increased spending by provincial governments and state enterprises that are not particularly efficient in their utilization of resources. It would also be desirable to see the Chinese authorities put their implicit liabilities on budget before they embark on major new fiscal initiatives. Fortunately, China is a case where such initiatives are not essential.

This change in the policy mix will be good for the Asian economies themselves. It will lead to a more balanced pattern of investment between sectors. It will enable central banks to better tailor domestic monetary and financial conditions to local needs, preventing overheating and speculative excesses that potentially threaten financial stability.

These arguments suggest that the collective-action problem frequently cited as an obstacle to currency appreciation in Asia may be overblown. If the benefits of this shift in the policy mix are so pronounced, countries should be prepared to adopt it unilaterally. To be sure, many Asian countries compete in the same markets; if some revalue but the others do not, the initiators will suffer larger losses of exports and growth. This is an argument for why no one country may be willing to move first and allow its currency to appreciate unilaterally. But, to the extent that fiscal policy can be used to offset these effects, this argument loses much of its force.

In addition, it is not clear that the argument holds much water in the case of the region's two large economies, China and Japan. Why should China have to move first

when the impact of a change in China's exchange rate on other Asian countries is ambiguous in theory and almost certainly very small in practice? On the one hand, to the extent that other Asian countries compete with China in third markets, they will see their export competitiveness suffer if that country does not participate in the regional revaluation. On the other hand, to the extent that other Asian countries supply raw materials and manufactured components to China for that country's export-oriented industries, they will benefit if China does not revalue and instead allows its exports to surge ahead. To a first approximation, the two effects cancel out.¹² This implies that East Asian economies need not defer their own decision until they know whether China will also tighten its monetary policy and revalue its currency.

In the case of Japan, further strengthening of the yen would only compound a deflation problem from which the Japanese economy is only now beginning to recover. It is important to recognize that deflation in Japan is not yet over; consumer and wholesale prices continue to decline. Appreciation of the yen would make for further deflation, which would only aggravate the situation of economic stagnation in which households are reluctant to spend, firms are reluctant to invest, and banks are reluctant to lend.¹³ Neither would stagnation in Japan obviously be good for the country's East Asian neighbors. In the short run, failure of the yen to appreciate (or its tendency to further depreciate) might have modestly negative effects for Asian NIEs that compete with Japan in third markets.¹⁴ In the long run, the NIEs and the entire region would be better off as a result of a Japanese economy that is able to grow again as a result of finally banishing the

¹² This is the finding of simulations reported in Economic Scenarios (2003).

¹³ To the extent that economic recovery in Japan is strengthening, this largely reflects the central bank's newfound commitment to driving up inflation and driving down the exchange rate as necessary to do so. ¹⁴ See Kamada (2002) and Isogai (2002).

specter of deflation. The implication is that East Asian countries should not wait on Japan when contemplating changes in their own policy mix.¹⁵

Yen depreciation as part of the process of eliminating global imbalances is not something that is viewed with much enthusiasm in the rest of East Asia. In this connection we would make three points. First, what Japan needs is nominal, not real, depreciation. Nominal depreciation, by pushing up the price level, will banish the specter of deflation. Eliminating deflation will stimulate Japanese consumption and investment demands, which will be good for all of Asia. To the extent that Japanese prices rise as the yen depreciates, the policy will not beggar the country's neighbors (there will be no real depreciation). Only during the interim period in which inflation lags depreciation might the rest of Asia feel this effect.

Second, exchange-rate led reflation is not a substitute for financial restructuring. There is a danger that Japanese authorities, seeing the economy pick up, will relax before completing the necessary structural reforms. If so, Japan's recovery will not be sustainable. Any currency adjustment will only deliver the goods if it is not offset by additional laxity on restructuring and reform.

Third, if the Japanese economy is already embarked on a sustainable recovery, then the case for yen depreciation is less compelling, and the concerns voiced elsewhere about beggar-thy-neighbor effects should carry the day. For our part we are not convinced, however, that the danger of deflation is in fact over.

Does adjusting the policy mix toward tighter monetary policy and looser fiscal policy mean that Asian countries should allow their currencies to float freely? This is not

¹⁵ And to the extent that the negative effects dominate in the short run, other countries should compensate with the use of fiscal policy.

what we are arguing. A shift in the policy mix that creates a tendency for currencies to strengthen does not mean that their movement can be neglected. If appreciation begins getting out of hand, central banks should utilize all of the monetary instruments at their disposal to prevent it from continuing. Only in relatively large, relatively closed economies like the United States and Euroland can the exchange rate be treated with benign neglect even for limited periods. In general, the smaller and more open an economy and the less liquid its financial markets, the more weight should be put on the exchange rate as an intermediate target for monetary policy.¹⁶

Here the U.S. Treasury has only muddied the waters by insisting that Asian countries should allow their currencies to float freely. A free float is not desirable or feasible for the countries of the region. To insist on free floating only arms those who resist the necessary shifts in the policy mix with another irrelevant argument.

Will these adjustments also solve the problem of global imbalances? A tighter monetary policy that induces exchange rate appreciation will slow export growth, while a tax cut will stimulate the demand for imported goods. But the effects on the U.S. current account deficit are unlikely to be large. The current accounts of Asian countries are not going to shift from surplus to deficit overnight. Indeed, there is ample evidence that current account balances depend on a host of other factors. It is worth recalling that Asian countries' policies of export led growth were once consistent with large current account deficits as opposed to the now-prevailing surpluses. At the moment, Asian savings are high; memory of the crisis of 1997-8 continues to encourage precautionary saving by households, while firms and banks are continuing to rebuild their liquidity

¹⁶ Thus, even open economies which engage in inflation targeting (Brazil and Mexico, for example) put considerable weight on the exchange rate as a determinant of future inflation and economic growth (see Eichengreen 2002).

positions. Investment in East Asia has yet to recover fully from the effects of the 1997-8 crisis. (See Table 4.) The current account being the difference between savings and investment, this makes Asian current account surpluses larger than otherwise. There is reason to think, in other words, that these surpluses will shrink as the economic situation in East Asia continues to normalize.¹⁷

Finally, it is important to emphasize that this shift in the policy mix is no panacea. It will not solve all of Asia's problems. It is not a substitute for progress in strengthening domestic financial markets, downsizing state sectors, and limiting government interference in the allocation of resources. Here efforts to cooperate in the development of regional financial markets are a step in the right direction. So are ongoing efforts to remove obstacles to free trade within the region. To the extent that the region needs to graduate from its old growth model, such reforms provide important support.

2. The United States

In the United States, what is needed is not a change in the policy mix now but an adjustment in the medium term path of fiscal policy to prevent the need for an undesirable policy mix in the future. The dominant fact about the U.S. macroeconomic mix is that fiscal and monetary policies are both very loose.¹⁸ In 2001, as economic activity slowed, the Federal Reserve reduced the federal funds rate 11 times, from 6.50 per cent to 1.75 per cent. It then brought the funds rate down still further, to 1.25 per cent

¹⁷ This is even likely to be true of China, as consumption demands continue to rise and domestic savings rates fall. Another way of looking at this issue is that the country will have to import more raw materials and energy in order to sustain its growth, thereby narrowing its current account surpluses.

¹⁸ The following summary draws on Council of Economic Advisors (2003) and Muhleisen and Towe (2004).

in November 2002, after which it has held steady.¹⁹ There is no precedent for policy rates this low anytime since the 1930s. Cumulatively, the reduction in the funds rate confers a large amount of monetary stimulus. Council of Economic Advisors (2003) estimates that a one percentage point reduction in the federal funds rate raises real GDP by 0.6 per cent after one year and 1.7 per cent after two years. Recall that we are talking here about a reduction in that rate of more than 5 percentage points over a two-year period.

Meanwhile, the Congress and the Administration adopted significant tax cuts starting in early 2001. Marginal tax rates were reduced, and consumers were provided rebate checks anticipating their savings (in the amount of \$600 for most married couples). In addition there was to be a phased reduction in estate taxes. Further tax policy initiatives in March 2002 allowed many corporate investments to be expensed through the third quarter of 2004, front-loading investment. Although the economy was already recovering, in early 2003 President Bush proposed further tax reductions. Some involved accelerating cuts agreed to in 2001 but which had then been planned to phase in only gradually, while others were designed to make permanent reductions initially foreseen as temporary responses to the 2001-2 recession. The 2003 package also included a significant reduction in tax rates on dividends and capital gains.

The magnitude of the resulting fiscal stimulus is apparent in the shift of the federal budget balance (including the social security surplus) from a surplus of 2 ½ per cent of GDP in FY 2000 to a deficit of more than 4 per cent of GDP in FY 2004. (See Figure 2.) The IMF ascribes about half of the change through FY 2003 to the 2001 recession and the relatively weak recovery that followed. A quarter is attributable to

¹⁹ As of the time of writing

increased discretionary spending on defense, homeland security and social programs. The remaining quarter is attributed to the effects of the tax cuts.²⁰ And the share attributable to the tax cuts rises going forward.

Clearly, some temporary loosening of fiscal policy was desirable when the economy was weak. But now that the economy is strengthening, there is little indication that the earlier increase in the deficit will be reversed. While the effects of the recession will now go away (hopefully), the increased costs of defense and homeland security will not. The 2001, 2002 and 2003 tax relief acts together are projected by the Congressional Budget Office to add more than \$1 trillion to the federal government debt, accounting for perhaps half of the perhaps \$2 trillion cumulative increase until the budget returns to balance early in the next decade. (Under current law, many of these tax cuts phase out by 2011, allowing the budget to return to balance at that time assuming healthy growth of the economy in the interim.)

However, the Administration's current intention is make the tax cuts permanent, which would increase the annual budget deficit by a further \$1.7 trillion (averaging 2 ¹/₂ per cent of GDP) through 2013.²¹ The largest effects would be felt after 2010, since that is when the phase-out would have otherwise been complete. Based on the FY2004 budget, CBO projects deficits of 2 per cent of GDP including the social security surplus, and deficits of 3.5 per cent to 4 per cent of GDP when that surplus is excluded, through 2008 (and only slightly smaller deficit ratios of 1.8 and 1.7 per cent in 2009 and 2010). This implies that the U.S. government's net general debt as a share of GDP may rise from

²⁰ Independent analyses (by, inter alia, Committee for Economic Development et al. 2003) attribute only about a third of the fiscal deterioration to the slower than expected growth of the economy, another third to the tax cuts, and the remaining third (actually, slightly less) to increased discretionary spending.

²¹ Assuming also reform of the Alternative Minimum Tax.

its current level of 50 per cent of GDP to 65 per cent or more early in the coming decade.²² If discretionary spending proves difficult to control, federal budget deficits will be larger still. Feldstein (2004) calculates that if discretionary spending (which *includes* homeland security and defense, outlays for which are all but certain to increase) rises at the rate of nominal GDP, an additional 2 percentage points of GDP will be added to the deficit annually through the end of the decade. Together this means that the deficit as a share of GDP will average 3.7 per cent of GDP on a rising trend: it will have risen to 5 per cent of GDP by the middle of the next decade.²³ At that point the debt ratio would begin to rise explosively.

This additional debt will put upward pressure on U.S. and global interest rates. CEA (2003) estimates that additions to the stock of public debt raise U.S. interest rates by 3 basis points for an additional \$200 billion of U.S. government debt (which is roughly 15 per cent of a \$1.1 trillion economy expected to grow at a rate of 5 per cent a year); thus even \$5 trillion of additional debt over the next 10 years (assuming that the tax cuts are made permanent and there is some increase in the real value of discretionary spending) would only raise interest rates by 75 basis points on this assumption. Gale, Orszag and Rubin (2003) suggest in contrast that the impact on interest rates is likely to be twice this large.²⁴

²² Including the debt held by the Social Security and Medicare Trust Funds.

²³ See Gale and Orszag (2004). Our estimate for 2014 assumes, following the CBO, that the balanced budget for 2014 is adjusted for an annual increase in \$300 billion for discretionary spending, \$150 billion for reform of the Alternative Minimum Tax, and \$500 billion for making the 2001-2003 tax cuts permanent. With 2014 nominal GDP projected at \$18,070, the deficit comes in at 5.2 per cent of GDP. ²⁴ Muhleisen and Towe (2004) similarly suggest that even without any growth in the real value of discretionary spending the growth in the public debt ratio will raise real interest rates by ½ to 1 percentage points not only in the U.S. but throughout the OECD. Presumably interest rates will rise more in the United States than abroad, consistent with some secular depreciation of the dollar.

The main source of the difference in the magnitude of the two sets of estimates appears to be that CEA assumes perfect substitutability of government bonds and other assets. In fact, as the U.S. debt burden rises, investors will surely demand a growing premium in order to hold additional Treasury securities. One way that this risk premium can emerge is if foreigners grow reluctant to absorb additional U.S. Treasury securities as their supply continues to expand. (See Figure 3.) This will place downward pressure on the dollar, and foreign investors (and at some point, presumably, U.S. investors as well) will require compensation for the fall in the purchasing power of U.S. Treasury securities.

CEA (2003) assumes that the federal government will be able to continue placing some 40 per cent of its additional debt issuance with foreigners. Dooley, Folkerts-Landau and Garber (2003) argue that the countries of Asia and Latin America have insatiable appetites for international reserves (the demand for which will continue to grow along with their economies), reserves that can be most conveniently accumulated and held in the form of dollars (see Figure 2). Committed as they are to policies of export-led growth, the countries of Asia and Latin America will continue to intervene in the foreign exchange market to keep their currencies from rising against the dollar, which is the other side of the coin of rising reserves. In turn, this will work to keep U.S. Treasury yields down.

The question is whether this forecast is correct. It assumes that Asian countries, which account for the bulk of the reserve accumulation, will not move away from policies of export-led growth based on undervalued exchange rates. Above we suggested that there are a variety of reasons for thinking that they will do so sooner rather than later. If they do, curtailing their acquisition of additional U.S. Treasury securities or even

diversifying their reserve portfolios out of dollars, U.S. interest rates will have to rise and the dollar will trend downward. (Higher U.S. interest rates and a depreciating dollar go hand in hand, of course, by virtue of the interest parity condition.) Foreign central banks now hold \$1,400 billion of U.S. Treasury securities (roughly 40 per cent of outstanding issues).²⁵ Official foreign holders, mostly central banks, account for 60 per cent of that \$1,400 billion. Central banks and other official foreign holders also purchased more than one third of new U.S. Treasury issues in 2003. If they curtail their demands and sell of some of their existing holdings, the downward pressure on the dollar could be significant.²⁶

The dollar's decline will in turn give the Fed more reason to raise interest rates. That there has been no noticeable acceleration of inflation to date, despite the dollar's roughly 15 per cent decline on a trade-weighted basis from its early-decade peak, does not mean that future inflationary trends will be equally accommodating. The dollar's past decline occurred against a backdrop of falling consumer prices. U.S. labor markets have been unusually slack, given the slow pace of job creation, something that (hopefully) will not continue indefinitely. In January alone, import prices rose by 1.3 per cent (0.7 per cent excluding petroleum). To quote Kasman (2004, p.18), "the passthrough of the lower dollar to the consumer sector continues to build: nonauto consumer prices rose 0.3% in January, and are up 0.4% oya; this is a sharp turnaround from their trough decline of 1.6\$ in 2002, and the largest increase in seven years." For the U.S., the rule of thumb is that a

²⁵ Lipsky and Glassman (2004), p.2.

²⁶ Private foreign purchases and holdings are even larger than official foreign purchases and holdings, especially when private sector debt and equity issued by U.S. entities is added to U.S. Treasury securities, as Lipsky and Glassman (2004) emphasize. But none of this rules out the possibility that a shift in official portfolios could catalyze significant re-pricing by the private sector.

10 per cent decline in the dollar leads to a 3 percentage point acceleration of inflation.²⁷ If the dollar declines by a further, say, 30 per cent over three years, adding 3 percentage points of inflation per annum, the Taylor rule suggests that the Fed will raise its policy rate by 450 basis points. In and of itself this would not be disastrous; it would not even represent a move fully back to the policy rates of early 2001. But if those additional 450 basis points come on top of policy rates already in the neighborhood of 4 $\frac{1}{2}$ per cent, which is normal for the expansion phase of the business cycle, the impact could be significant. A nine per cent federal funds rate has not been seen for fully 15 years.

This combination of loose fiscal policy and tight monetary policy is not, in our view, what the U.S. economy needs in a period when productivity is surging ahead as a result of the private sector's success at applying advances due to the IT revolution to a variety of sectors. There is a growing body of evidence that productivity growth in advanced-industrial countries is associated with IT use rather than IT production per se.²⁸ Installation of IT and the reorganization of production to capitalize on its availability require investment, and a mix of tight monetary policy and loose monetary policy are the inverse of the standard prescription for an investment-friendly policy environment. Simulations of the IMF's macroeconomic model in Muhleisen and Towe (2004) suggest that the short-term stimulus from recent tax cuts will begin to wane quickly and come to be dominated by the crowding out of private investment, reducing U.S. labor productivity

 $^{^{27}}$ See for example Olivei (2002). Estimates of passthrough are higher (on the order of 0.5) for the 1980s than the 1990s (when they are closer to 0.25). Thus, 0.3 is a compromise estimate. Older studies yield even higher estimates of passthrough for the United States, on the order of 0.6 (see Goldberg and Knetter 1997). The question for present purposes is whether passthrough has been lower recently because the inflation rate has been lower (something that might reverse in the future) or because the competitive environment has grown more intense (something that is unlikely to reverse).

²⁸ See Anderson (2001) and OECD (2001).

by ¹/₂ per cent in the long run. Simulations of the Federal Reserve's model by Elmendorf and Reifschneider (2002) point to the same conclusion.

In addition, the longer-term structural challenges facing the U.S. economy also militate in favor of a tighter fiscal policy complemented by a looser-than-otherwise monetary stance. CBO projects that the annual growth rate of Social Security spending will rise from 4.6 per cent in 2004 to 6.3 per cent by 2014, while Medicare and Medicaid spending will rise at a rate of 8 to 9 per cent a year. The net present value of the unfunded actuarial liabilities of the Social Security and Medicare systems are more than 150 per cent of GDP when measured over a 75 year horizon. Filling this gap would require transfers from the general revenues of the federal government and lead to an explosive rise in government debt centered on the second quarter of the century, assuming no other corrective action. This is an argument for strengthening the fisc now.²⁹

Thus, for at least three reasons – the impact on U.S. interest rates and therefore productivity growth, the longer-run challenges facing U.S. public-health and retirement systems, and the implications for the rest of the world – it would be beneficial for the United States to start adjusting its policy mix now. Its reluctance to do so is part of what is already creating tensions over exchange-rate and balance-of-payments trends.

4. Europe

In Europe, the problem is also that fiscal policy is too loose, but there this is already showing up in a monetary policy that is too tight. The Stability Pact added to the Maastricht Treaty in 1997 has essentially broken down. The budget deficits of Europe's

²⁹ OMB (2003) shows that if the budget (excluding social security) is quickly balanced now, future unfunded Social Security and Medicare liabilities will start rising sharply, requiring additional corrective action, only around 2050, not as soon as 2025.

large countries continue to exceed prescribed limits, and efforts by the European Commission and the small countries to impose collective discipline have been rebuffed. The reluctance of the European Central Bank to cut interest rates at anything approaching the speed of the Fed and its maintenance of relatively high rates even in the face of continued slow growth reflect worries about the future inflationary consequences of these policies.

While we have reservations about the specific provisions of the Stability Pact (in particular, the 3 per cent reference values for deficits are arbitrary and not well grounded in economic logic), we nonetheless believe that Europe would be better off with a tighter fiscal policy and looser monetary policy.³⁰ The continent has a looming demographic crisis: natality rates are lower than in the United States, and the female reproduction rate is only 1.5, well below the 2.1 required to maintain a population without immigration.³¹ And Europe is much less able than the United States to assimilate working-age immigrants. Whereas the population of the United States is expected (by the United Nations) to rise from 285 million in 2000 to 400 million by 2050, the population of the European Union is expected to have fallen from 377 million to 339 million. A rise in U.S. immigration from 1.2 million to 2.4 million annually, a significant but not inconceivable increase, would be enough to keep dependency ratios from rising. In Europe, in contrast, there is no way that a sharp increase in old-age dependency ratios

³⁰ As in the case of Asia, a more detailed analysis would distinguish the need for fiscal adjustment in different countries of the region. In Europe, it is mainly the large countries (Germany, France, Italy) where the need for fiscal adjustment is particularly pressing. In contrast, the small countries have significantly stronger current fiscal positions, although some of them face substantial unfunded pension and health-care related liabilities going forward (see Eichengreen 2004b).

³¹ This problem is most dramatic in Italy, where the female reproduction rate is only 1.2.

will be avoided absent a sea change in attitudes toward immigration that is unlikely to occur.

The implicit pension and health-care obligations associated with this change are staggering. This is a prospect for which governments ought to be saving now. To be sure, the aggregate-demand effects that reduction in deficit spending may be contractionary on impact. But these could be offset by some relaxation of monetary policy.

This shift in the policy mix would also be good for immediate the growth prospects of the European economy. For some years now, Europe has lagged behind the United States and Asia in terms of aggregate growth. In particular, Europe has been less successful than the U.S. at exploiting the growth opportunities afforded by the New Economy.³² In part this reflects the absence of an investment surge comparable to that which has occurred in the United States and hence a slower rate of adaptation of new information and communications technology.³³ As explained in Section 2 above, a tighter fiscal policy and looser monetary policy would be a more investment-friendly policy mix. It would also tend to bring down the foreign exchange value of the euro, other things equal, relieving the pressure on the continent's manufacturing sector.

There are two objections to this view. First, there is the argument that Europe's deficits are not in fact out of control; their growth since the beginning of the decade simply reflects the operation of automatic stabilizers. By implication, the same factors

 ³² Thus, whereas there was a significant increase in the United States in the rate of total factor productivity growth between the 1980s and 1990s, OECD (2001) and Anderson (2001) show that there was no such increase in Belgium, France, Germany, Italy, Japan, the Netherlands, Spain, or the United Kingdom.
 ³³ In part it also appears to reflect the intensity of the competitive environment and the incentives for up-take and application of new technology (McKinsey 2001). We return to this below.

that led them to widen in the recent slowdown should lead them to narrow as recovery and growth gain speed.

European Commission (2003) shows that that there is something to this point: the roughly 50 per cent increase in the budget deficit/GDP ratio in the euro area between 2001 and 2004 is largely attributable cyclical effects.³⁴ But the absence of a deterioration in the structural budget balance reflects one-off bookkeeping measures in countries like Portugal and Belgium (the transfer of the Post Office Pension Fund in the first case and of the Belgacom Pension Fund in the second) and the tax amnesty in Italy (as a result of which the country collected 1.6 per cent of GDP). Underlying balances are weaker than realized balances, in other words, a fact which will become evident this year when the one-time measures in question will not be repeated.

The deficit ratios in the large euro area countries look even more alarming in light of looming demographic problems. As is well known, Europe's deficit problem is long standing; in its current incarnation, it developed in 1999-2001, once the first set of EU members qualified for membership in the euro zone. The carrot of euro zone membership having been eaten, the pressure for fiscal consolidation was off (or at least greatly reduced). The large countries in particular realized that they had too much political leverage to in fact be subject to the sanctions and fines of the Stability Pact. Hence, their deficits were too small in the good times at the beginning of the new century to avoid exploding when economic conditions deteriorated in 2002-3.³⁵ Even more revealing is that fact that the deficits of France and Germany are now projected to remain

³⁴ Thus, its Table 1.2 shows that while the deficit ratio for the EUR-12 increased from 1.6 per cent to 2.5 per cent, the cyclically adjusted budget deficit ratio remained essentially flat. ³⁵ Recall that this recession came later to Europe than it did to the United States.

at high levels well into the second half of the present decade, even though growth is forecast to accelerate.

Second, there is the argument that the relatively high interest rates maintained by the ECB reflect not worries about the stance of fiscal policy but rather the limited slack in the European economy. Because growth prospects are more limited than in the United States, the output gap remains small. And because the output gap is small, standard central bank reasoning (the Taylor Rule) suggests that faster interest rate cuts are not appropriate for a central bank concerned that inflation will accelerate if the output gap narrows further and with a mandate to pursue price stability.

Here too there is something to the point. But even if the output gap is small, this does not change the fact that it would widen if budget deficits were reined in. In turn this would give the ECB more room to cut interest rates, helping to create the more investment-friendly environment that Europe so desperately needs.

How can this change in the policy mix be achieved? The answer is a reform of the Stability Pact that enhances the credibility of its surveillance and sanctions by focusing on the fundamental causes of budget deficits. Specifically, that reform should shift the focus from arbitrary numerical thresholds for budget deficits to the structural characteristics of economies that determine the appropriate stance for fiscal policy.³⁶ Recent reforms proposed by the Commission are a step in the right direction. These would allow member states that stick to a medium term objective of balancing their structural budgets – meaning their budgets adjusted for the effect of the business cycle --- to run larger deficits in recessions. Countries with low state pension liabilities and low public debts would also be cut additional slack at the Commission's discretion.

³⁶ This recommendation is drawn from Eichengreen (2004b).

But these modest reforms do not go far enough. The most compelling rationale for the Stability Pact is that deficits today may imply deficits tomorrow, and that chronic deficits are problematic because they may lead to problems of debt sustainability that force the ECB to provide an inflationary debt bailout. But not all deficits are equally chronic. Transitory deficits in recessions are part of the solution, not part of the problem; they simply reflect the operation of automatic stabilizers. On the other hand, deficits are likely to prove chronic where countries have fiscal institutions that are conducive to free riding and common pool problems – when they allow special interest groups to lobby for spending on their preferred programs without taking into account the consequences for the overall budget – and where political distortions are allowed to dominate the budgetmaking process.

There is now a large literature establishing these facts.³⁷ Countries where the prime minister or finance minister has agenda setting power in the budget making process are less prone to chronic deficits, in comparison with countries where spending ministers make their requests first, leaving it to the finance minister and the parliament to then attempt to reconcile their competing claims. Similarly, where decentralized decision making and revenue sharing allow states and municipalities to spend now and be bailed out later by the central government, the latter is more likely to suffer chronic deficits.³⁸ Where national budgetary institutions are more hierarchical, in contrast (where the president maintains a one-party majority in the parliament or where the number of veto

³⁷ See for example von Hagen and Harden (1995), Fukasaku and Hausmann (1998), von Hagen (1998), and Hallerberg and von Hagen (1999).

³⁸ For example, the literature on Latin America shows that countries with large vertical fiscal imbalances are prone to chronic deficits; they allow states and provinces to spend now and be bailed out by the central government tomorrow. See Stein (1998). Readers will remember how the deficits of the provinces constituted a large part of Argentina's fiscal problem. This literature similarly shows that where state governments have their own public banks, the latter tend to become lenders of last resort to the local authorities and their public enterprises and engines of deficit spending and inflation.

players is small), deficit bias is less. Revealingly, countries are more likely to have statutory caps on deficit spending, similar to the EU's 3 per cent rule, where vertical fiscal imbalances are large and budgeting processes are less hierarchical.³⁹ Only countries with relatively decentralized budgetary institutions, large vertical fiscal imbalances, and open-ended spending programs -- countries that are prone to chronic overspending -- display a need for numerical rules.

In addition, countries with large unfunded pension systems will almost certainly have debt problems down the road, because politicians with electorally-shortened horizons are unlikely to appreciate the need to run surpluses now in order to offset pension-related deficits later. Similarly, where workers are allowed to draw unemployment and disability benefits for indefinite periods, deficits today almost certainly presage deficits tomorrow.

The implication is the Stability Pact should focus not merely on fiscal numbers, which are arbitrary and easily cooked, but on fiscal institutions. The EU should take recent reforms relaxing the Stability Pact's restrictions for countries with low state pension liabilities and low public debts a step further. It should agree to base exemptions from the Stability Pact's ceilings on an explicit index of institutional reform and create an independent committee to design and implement that index. The index might give countries a point each for, say, reform of their budgetary processes, reform of their pension schemes, and reform of their labor markets and unemployment insurance systems. Countries receiving three points would then be exempt from the Stability Pact's guidelines, since there is no reason to expect that they will be prone to chronic deficits.

³⁹ As documented in von Hagen and Eichengreen (1996).

The others, whose institutions render them prone to chronic deficits, would in contrast still be subject to the pact's warnings, sanctions, and fines.

Because the Stability Pact will then have a clear and coherent rationale, its sanctions and fines will be more credible and easily enforced. There will be more pressure, both domestic and regional, for fiscal consolidation where this is needed most. And this will in turn open up room for the ECB to relax monetary conditions, bringing its war of attrition with the continent's fiscal authorities to an end. In turn this will help to create a more investment-friendly policy mix and relieve the upward pressure on the euro that is placing so much pressure on the continent's manufacturing industry.

Just as for Asia, it is important to emphasize that this change in the policy mix will not solve all of Europe's problems. The continent still needs more flexible labor markets, easier firm entry and exit, more competitive product markets, and more efficient delivery of higher education. A tighter fiscal policy and looser monetary policy will not solve these problems by themselves. Nor will a more competitive exchange rate. But, by making for a more investment-friendly macroeconomic environment, they can only help.

5. Conclusion

Whenever exchange rates move by large amounts, they become a source of tension. This has been true over the last year with the fall of the dollar on a tradeweighted basis, the reluctance of Asia countries to permit their currencies to rise, and the strong appreciation of the euro. But while exchange rate fluctuations sometimes take on a life of their own, more commonly they are symptoms rather than causes of underlying

problems. We have argued that this is the case in the present context and that the debate over exchange rates would be more productive if it focused on those fundamentals.

In the U.S., Europe and Asia alike, the relevant fundamentals can be described in terms of the policy mix. In Asia the long-standing strategy of export-led growth continues to dictate a loose monetary policy intended to keep exchange rates low, accompanied by the tight fiscal policy then necessary to prevent economies and financial sectors from overheating. Given that this strategy of export-led growth has reached a point of diminishing returns, Asian countries would be better served by adjusting the mix in the direction of a tighter monetary policy and looser fiscal policy. This would facilitate their efforts to invest in the higher education and urban amenities needed to cultivate and retain knowledge workers.

In the United States, fiscal policy is loose and promises to grow looser. If the appetite of foreign investors for U.S. Treasury securities begins to wane, the dollar's depreciation could accelerate, forcing the Fed to tighten significantly. This prospective mix of loose fiscal policy and tight monetary policy is the opposite of what is needed to encourage investment. And if the "productivity miracle" is real, this is the worst possible time for the public sector to be absorbing finance that is better devoted to productivity-enhancing private investments.

These shifts in the policy mix in the U.S. and Asia would relieve some of the upward pressure on the euro. Europe could then contribute by shifting its own policy mix toward a tighter fiscal policy and looser monetary policy. Many of the same arguments about why the U.S. would benefit from a tighter fisc apply in Europe as well – the demographic arguments even more forcefully. Among other things this would encourage

the ECB to relax, which would give a further boost to investment and take more upward pressure off the euro.

Monetary and fiscal policies are not the only variables that drive exchange rates, much less the performance of economies. But neither are imbalances in these policies irrelevant. Constructive adjustments in the monetary-fiscal mix in all three regions would be an important step toward a healthier world economy. Not incidentally they would also help to diffuse exchange rate tensions and minimize the likelihood of additional sharp movements in the major currencies going forward.

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Table 1. Current Account Surpluses and Foreign Exchange Reserves, 1998-2002(In billions of US dollars)

	Indonesia	Malavsia	Malavsia Philippines Korea	Korea	Singapore Thailand China	Thailand	China		Japan Hong Kong	Taiwan
(1) Foreign Exchange Reserves at the end of 2002	31.6 (19.15) ¹⁾	34.6 (33.29)	16.2 (20.12)	121.4 (21.05)	82.3 (86.86)	38.9 (26.74)	129.6 (15.90)		96.3 (66.13)	16.6 (58.90)
(2) Change in Foreign Exchange Reserves(1998~2002)	27.5	24.8	14.6	81.0	63.7	24.6	23.2	119.4	6.6	71.0
(3) Cumulative total of Current account surpluses (1998~2002)	32.2	45.1	20.3	91.4	81.9	50.0.01	27.5	344.4	24.2	59.4
(3)/(1)	1.02	1.30	1.25	0.75	1.00	1.28	0.21	1.26	0.25	0.36
(3)/(2)	1.17	1.82	1.39	1.13	1.29	2.03	1.00	3.64	0.84	1.17
1) Percentage of GDP										

1) Percentage of GDP Source: IFS (International Financial Statistics: <u>http://ifs.apdi.net/imf</u>)

		(In billions o	(In billions of US dollars) ¹⁾				
	1996	1997	1998	1999	2000e	2001f	2002f
Current account balance	-55	-27	69.8	62.9	46.2	33	26.3
External financing, net	116	40.5	-14	-3.3	10.5	-20.7	-6
Private flows, net	118	5.6	-37	-5.8	7.6	-11.8	-3.1
Equity investment. net	16.8	5.2	17.8	30.8	24.4	10.6	11.2
Direct investment. net	4.8	6.8	13.3	15.3	13	7.2	8
Portfolio investment. net	12	-1.7	4.5	15.4	11.4	3.4	3.2
Private creditors, net	101	0.5	-55	-37	-16.8	-22.5	-14
Commercial banks, net	69.4	-17	-48	-33	-16.1	-14	-7.6
Nonbanks, net	31.8	17.4	-6.5	-3.7	-0.7	-8.5	-6.7
Official flows, net	-2.1	34.9	23.4	2.4	2.9	-8.8	-2.8
IFIS	-1.9	22.7	19.7	-5.2	2	-8.3	-2.9
Bilateral creditors	-0.2	12.2	3.8	7.7	0.9	-0.01.5	0.1
Resident lending/other, net ²⁾	-43	-46	-16	-23	-27.7	-6.4	-13
Reserves (- = increase)	-18	32.9	-40	-37	-28.9	-5.9	-7.5
e = estimate, f = IIF forecast							

 Table 2. External Financing of Five East Asian Economics

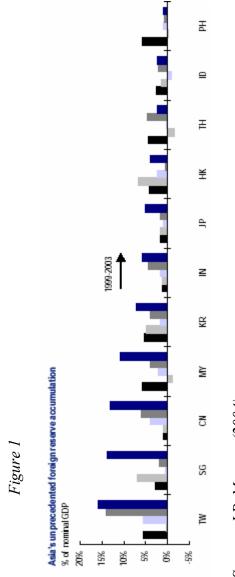
Indonesia, Malaysia, Philippines, South Korea and Thailand.
 Including net lending, monetary gold, and errors and omissions. Source: Institute for International Finance.

		Table 🤅	rapie 2. riscal surplus of Dericit as a share of QDI (Unit: percent)	Unit: percent)			
	1996	1997	1998	1999	2000	2001	2002
Korea	0.1	-1.3	-3.8	-2.6	1.4	1.8	1.6
Japan	-3.5	-2.8	-4.6	-5.4	4.4-	-5.1	-5.3
China	-1.3	-1.2	-1.5	-2.4	-3.1	4.4	-3.0
Hong Kong	2.1	6.5	-1.8	0.8	9.0-	-5.0	-4.9
Indonesia	1.2	-0.7	-2.9	-1.1		-1.2	
Malaysia	0.7	2.4	-1.8	-3.2			
Philippines	0.3	0.1	-1.9	-3.8	-4.1	-4.0	-5.2
Singapore	14.5	9.6	16.9	10.6	11.5	-0.3	-1.6
Thailand	0.9	-0.3	-2.8	-3.3	-2.2	-2.4	-1.4
Taiwan	-1.7	-2.4	1.2	0.5	-1.3	-2.5	-2.5

IFS (International Financial Statistics: http://ifs.apdi.net/imf)

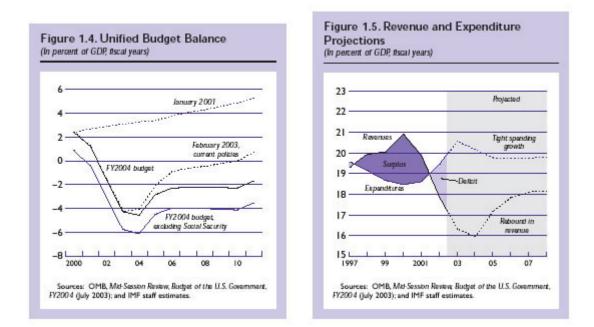
Table 4. Investment as a Share of GDP (In percent)

Country	Hong Kong	Singapore	Indonesia	Malaysia	Philippines	Korea	Thailand	Japan	Taiwan	China
1995	30.57	42.94	31.93	33.78	22.70	37.17	42.09	31.47	21.19	40.81
1996	28.99	43.93	30.69	41.48	24.02	37.94	41.82	32.71	20.63	39.32
1997	31.02	40.23	31.75	42.92	24.78	34.23	33.66	32.39	22.12	38.00
1998	28.03	32.33	16.77	26.68	20.34	21.17	20.45	30.82	22.78	37.40
1999	22.75	32.44	11.37	22.38	18.75	26.67	20.50	30.04	23.16	37.14
2000	25.57	32.28	16.10	27.18	21.46	28.20	22.81	30.25	22.57	36.37
2001	25.10	24.23	17.45	23.95	20.65	26.87	24.09	25.34	17.35	37.99
2002	22.92	20.62	14.27	24.45	19.30	26.04	23.94	23.52	16.44	37.24
Source: ARIC	Source: ARIC (Asia Recovery Information Center:	Information Cen	tter: http://aric.a	idb.org) Data	http://aric.adb.org) Data Base, Asian Development Bank	velopment E	3ank			



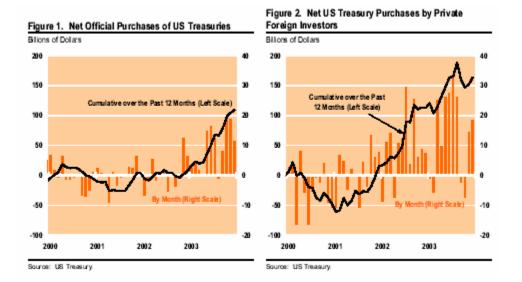
Source: J.P. Morgan (2004).





Source: Muhleisen and Towe (2004).

Figure 3



Source: Lipsky and Glassman (2004).