

When Global Imbalances Unwind: Challenges for the Asian Region *

Abstract

The current configuration of global imbalances, the financing that they entail, and the possible economic fallout that may occur as they unwind have become hot topics of discussion lately and understandably so since the scale and number of countries involved are unprecedented. The aim of this paper is to highlight the challenges faced by the Asian region in dealing with the repercussions of unwinding global imbalances, especially in light of extensive intra-regional production-trade linkages and their dependence on US demand, as well as motivate the need for serious policy dialogue before an abrupt adjustment takes place so that policy coordination needed in dealing with the fallout can be achieved more quickly and effectively. It does so by emphasizing the inherent fragility of the current setup and, in particular, the dependence of the status quo on a particular pattern of private capital flows rather than official flows. It argues that the real role played by the latter is to help coordinate private sector expectations on a future path of the US dollar that ensures continued financing of the US current account deficit and manageable level of capital inflow into East Asia. Given the underpinnings of the situation, it becomes progressively more difficult for the official sector to serve this role effectively as time goes by and the urgency for policy initiatives to deal with the potential fallout from unwinding global imbalances becomes more pressing.

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1. Introduction

The current configuration of global imbalances, the financing that they entail, and the possible economic fallout that may occur as they unwind have become hot topics of discussion lately and understandably so since the scale and number of countries involved are unprecedented. On the US side, a ballooning current account deficit driven by low household savings and larger budget deficits has created significant downward pressure on the US dollar. With export growth driving economic recovery of many East Asian countries, appreciation pressures have been largely resisted through foreign reserve accumulation by central banks in the region.¹ Meanwhile, those countries with relatively free-floating exchange rates, especially in the Euro zone, have become increasingly vocal about the appreciation of their currencies against the US dollar, as have US authorities about perceived manipulation of exchange rates by East Asian countries, notably China, heightening protectionist sentiment. This situation whereby US demand is providing the growth impetus for much of Asia while the latter has reciprocated by putting up much needed financing of the US current account deficit has been termed 'global co-dependency' by Mann (2004).

It is becoming clear that such a situation is not sustainable and pressures are already being seen in a number of dimensions. The aim of this paper is to highlight the challenges faced by the Asian region in dealing with the possible fallout from an unwinding of global imbalances, especially in light of extensive intra-regional production/trade linkages and its dependence on US demand, as well as motivate the need for serious policy dialogue *before* an abrupt adjustment takes place so that policy coordination needed in dealing with the fallout can be achieved more quickly and effectively. It does so by highlighting the inherent fragility of the current setup and in particular, the dependence of the status quo on a particular pattern of private capital flows rather than official flows. It argues that the real role played by the latter is to help *coordinate private sector expectations* on a future path of the US dollar that ensures continued financing of the US current account deficit and manageable level of capital inflows into East Asia. Given the underpinnings of the situation, it becomes progressively more difficult for the official sector to serve this role effectively as time goes by and the urgency for policy coordination becomes more pressing.

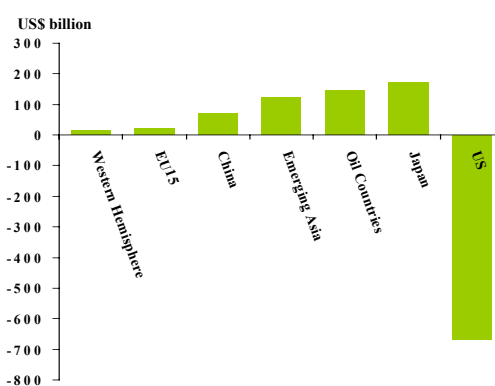
The outline of the paper is as follows. Section 2 provides some background on the current configuration of international balances, highlighting the key driving forces that underpin them. Section 3 discusses the limits of sustaining global co-dependency from an East Asian perspective focusing, in particular, on the inherent fragility of the setup stemming from its reliance on well-behaved private capital inflows. It also sets out the potential economic fallout associated with an unwinding of global imbalances. Section 4 analyses the production-trade linkages in the Asian region and the implications that this may have for the region in dealing with such a fallout. Finally, the case for policy coordination is put forward in Section 5 and Section 6 concludes.

¹ In this paper, East Asia is taken to comprise of 11 countries that include China, Hong Kong, India, Indonesia, Japan, Korea, Malaysia, the Philippines, Singapore, Taiwan, and Thailand.

2. The Current Configuration of International Balances

A snap shot of the current configuration of international external balances is provided in Figure 1. The current account deficit in the US has widened to around 6 percent of GDP in 2004, entailing a financing need of some 665 billion US dollars a year—an amount that exceeds the GDP of some small countries. At the same time, much of the rest of the world continue to run current account surpluses, with those in the oil exporting countries becoming considerably larger recently as world oil prices have trended upwards. The US current account deficit, which is equivalent to the amount by which overall consumption and investment exceed the national savings of an economy, predominantly reflects the steady decline in US saving rates—both among households, and more recently in the government sector (Figure 2). The importance of the latter should be underscored. The federal budget balance in the US has reversed sharply from a surplus of around 2.4 percent of GDP in 2000 to a deficit of over 3 percent of GDP in 2004. Whereas the widening of the current account deficit in the 1990s was driven by a boom in business investment associated with the ‘new economy’, more recent deterioration is the result the rapid increase in government spending. Normally, a sharp increase in public sector borrowing will be associated with upward pressure on interest rates but the rapid expansion in East Asian central banks’ reserve holdings has so far helped to offset this effect, as discussed below.

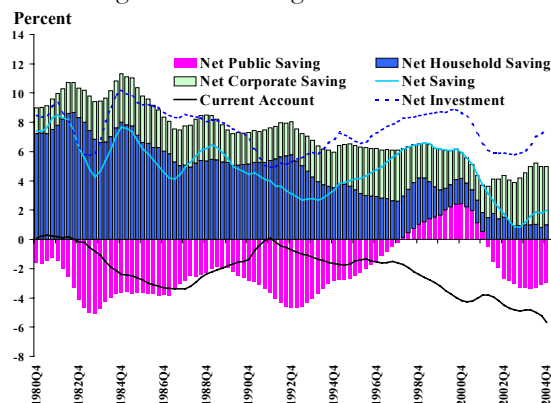
Figure 1: Global External Balances



Source: Direction of Trade Statistics and CEIC

By most measures, a current account deficit of the magnitude currently experienced by the US is not sustainable. Insofar as the trade deficit accounts for over 85 percent of the deficit in the current account, a major part of the adjustment can be expected to take place through a realignment of the trade balance. In general, this would involve a shift in the relative price of US exports to that of the world’s, that is, a weakening of the US real exchange rate. Thus the flip side of an unsustainable US current account deficit is that the US dollar is overvalued in real terms and needs to depreciate to help correct this imbalance. This depreciation can occur either through a weakening of the nominal exchange rate or a slowdown in US inflation relative to that of its main trading partners, or both. Given that price movements are generally quite sluggish and that the inflation rate in the US is already quite low, most of the adjustment in the short term is likely to come through a nominal depreciation of the US dollar. This is where the accumulation of US dollar reserve assets by the Asian central banks comes into the picture.

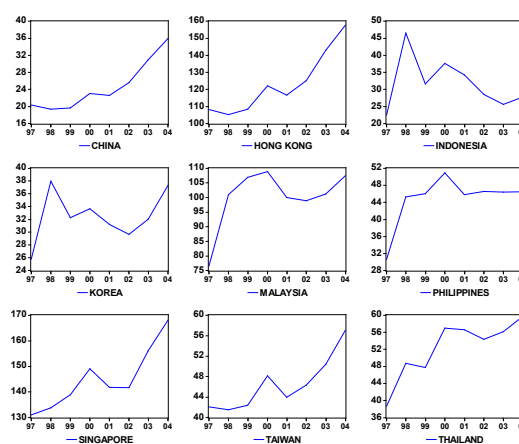
Figure 2: US Savings and Investment



Source: US Bureau of Economic Analysis

The ongoing recovery in many East Asian countries from the 1997 crisis, as well as the continued rapid growth in China, has relied heavily on the expansion of exports (Figure 3). Partly to safeguard the recovery process, the monetary authorities of several Asian countries have been reluctant to give up the substantial competitiveness gains resulting from the 1997 crisis. At the same time, some countries—notably China and Malaysia— have, until recently, pursued a fixed exchange rate regime anchored solely to the US dollar. The upshot, as shown in Table 1, is that the US dollar has depreciated only modestly against most Asian currencies since end 2001 compared to a fall of over 35 percent relative to the Euro. Indeed, of the 12.7 percent depreciation of the US trade-weighted exchange rate that took place during December 2001-July 2005, 6.6 percent has been borne by the Euro area while East Asia’s (excluding Japan) contribution has amounted to only 1.8 percent despite the fact that the latter’s weight in US trade is almost double that of the former. Not surprisingly, the Euro area countries have become more vocal about the effects of the US dollar depreciation on their exports.

Figure 3: Exports to GDP (Percent)



Source: CEIC and World Economic Outlook

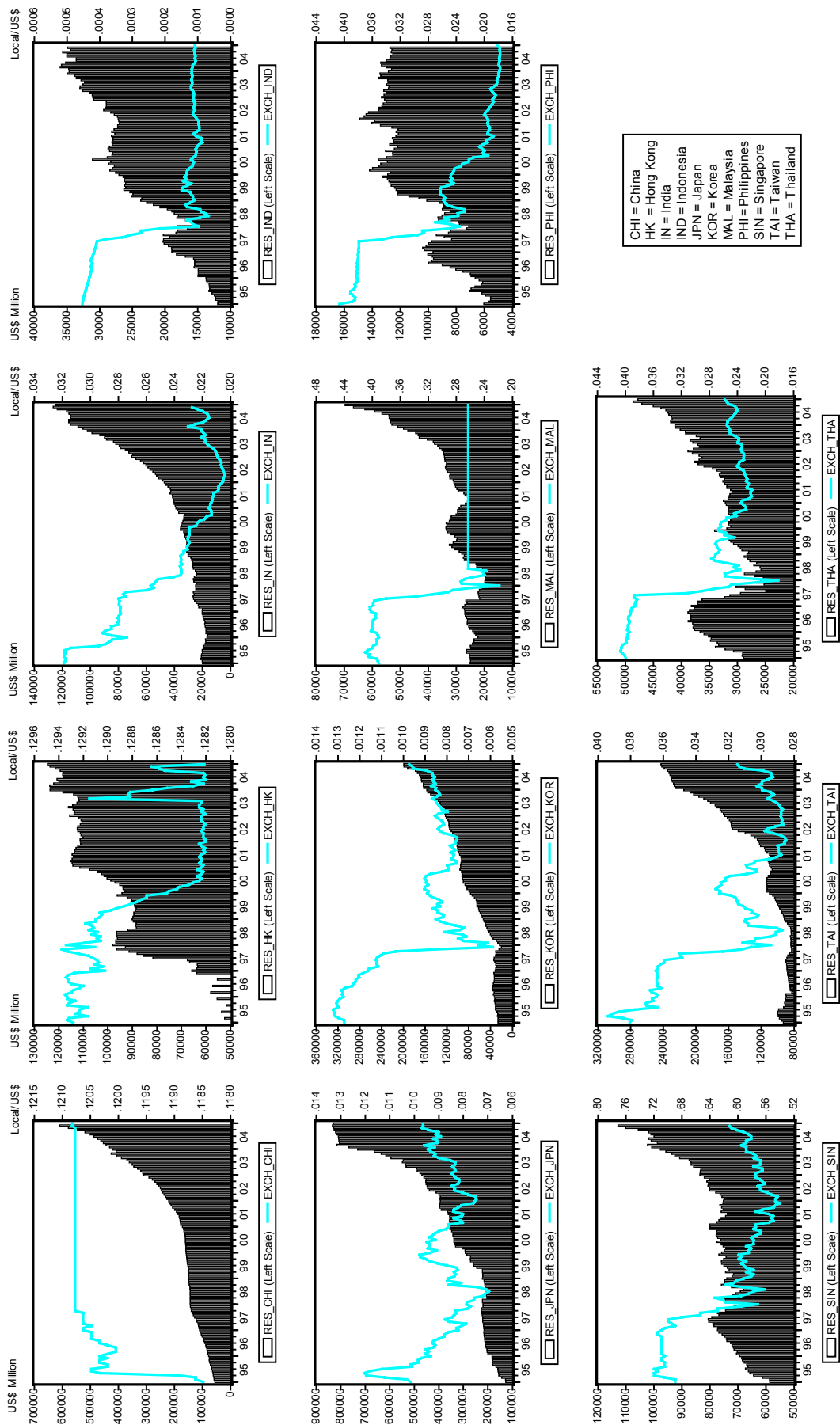
Against the backdrop of persistent current account surpluses and renewed private capital inflows, the resistance to appreciation pressures implies rising reserves in East Asia’s central banks. Figure 4 shows just how dramatic the increase in reserves held by Asian central banks has been. Reserves have increased sharply not only in absolute terms, but also when scaled by imports, short-term external debt, and broad money.

Table 1: Exchange Rate Developments (Dec. 2001- Jul. 2005)

Country	Weight in US TWI	Relative US\$ Change (- denotes US depreciation)	Contribution to Change in US TWI
China	11.3	-2.1	-0.2
Taiwan	2.9	-8.7	-0.2
Korea	3.9	-24.4	-0.9
Singapore	2.1	-9.1	-0.2
Hong Kong	2.3	-0.3	0.0
Malaysia	2.2	-0.3	0.0
Thailand	1.4	-5.1	-0.1
Philippines	1.1	7.5	0.1
Indonesia	1.0	-4.7	0.0
India	1.1	-10.8	-0.1
Total Asia	29.3	-6.1	-1.8
Memo: Japan	10.6	-14.1	-1.5
Euro area	18.8	-35.1	-6.6
Australia	1.2	-46.4	-0.6
Change in US TWI	-	-12.7	-12.7

Source: CEIC, US Federal Reserve

Figure 4: Exchange Rates and Foreign Reserves



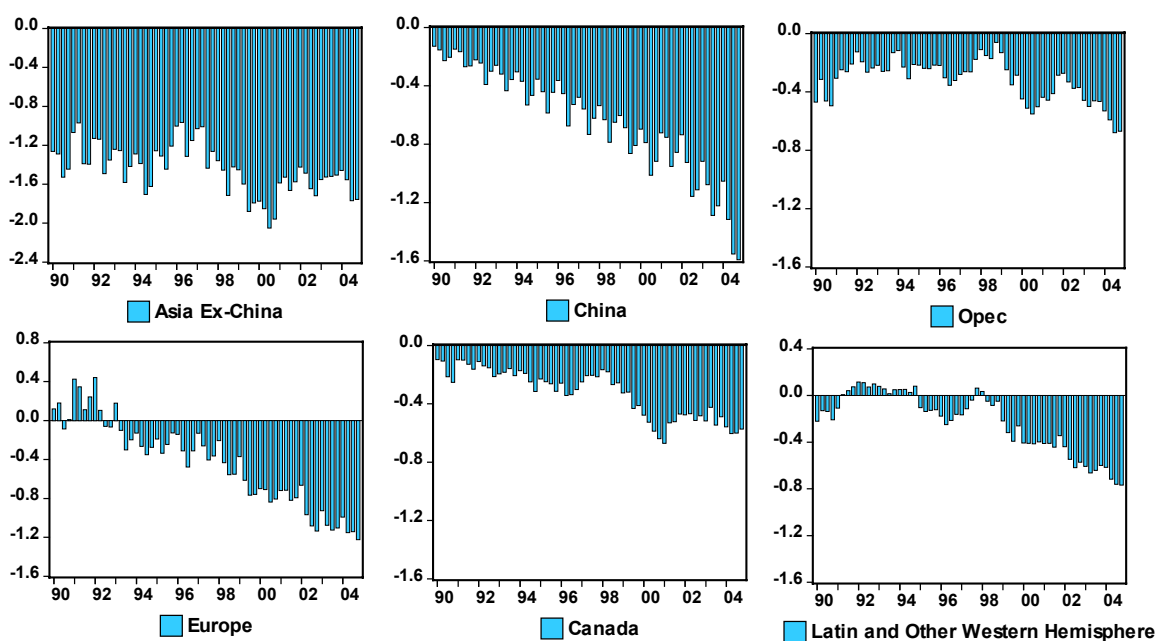
Source: CEIC, IFS

In the short term, Asian central banks' reserve accumulation is helping to support the world economy. This fact has to be clearly appreciated. By shoring up demand for US dollar assets and helping to finance the US fiscal deficit, Asian central banks have not only contributed towards a more orderly decline in the dollar, but also low interest rates in the US (especially on the long-end and in the mortgage market). Thus while sterilization operations in Asian central banks may be effective in containing domestic liquidity, they have implicitly passed the easing onto US monetary conditions. The latter has helped to sustain the boom in US consumer spending and mortgage borrowing which have been key in supporting the US—and thus world—economy and it is in everybody's interest that this does not stop too suddenly and that the US dollar does not fall sharply.

While much attention has been paid to the role of East Asian exports, in particular from China, in contributing towards persistent US current account deficits, this is a somewhat unbalanced representation of the situation. In fact, over all countries and regions around the world there are wide trade surpluses vis-à-vis the US (Figure 5). The widening US trade imbalance is thus not just about imports from China or Japan, but is broad-based across all trading partners. Indeed, the bilateral US trade balance vis-à-vis Europe is about the same dollar magnitude as with China. Thus, any re-balancing of the US trade deficit implies a narrowing, to a greater or lesser degree, in bilateral surpluses of all US trading partners.

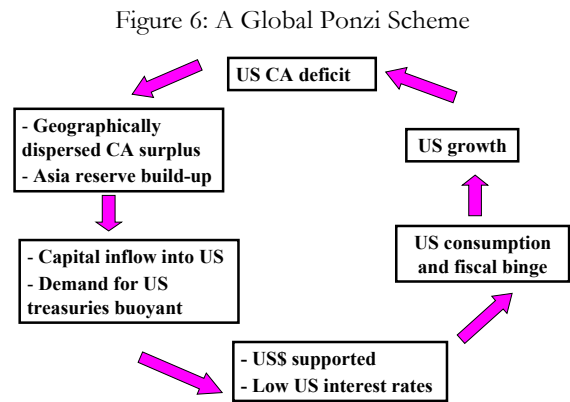
The essence of global co-dependency, then, is the emergence of two set of forces that are inextricably linked. One is the widening US current account deficit, and the other is the widely geographically dispersed but nevertheless persistent dependence of the rest of the world on exports to the US. Fact is, the world has a vested interest in a large and sustained US trade deficit, with its dependency on US demand as a source of growth matched by the US dependency on foreign savings to finance domestic investment and consumption. Underlying these external imbalances are internal imbalances at the country

Figure 5: US Bilateral Trade Balance with Selected Regions
(as a percent of US GDP)



Source: US Bureau of Economic Analysis

and regional levels with respect to savings and investment and domestic demand and production. The mechanics of this global financing cycle of the US current account deficit is summarized in Figure 6. Importantly, the flow nature of the diagram reflects the disturbing fact that the sustainability of the whole cycle rests on the willingness and ability of global investors—whose holdings of US assets already amount to around 40 percent of their total wealth—to continue accumulating US treasury bills. This is neither a viable nor desirable scenario in the long-run, both from the US’ or the rest of the world’s perspective. The next section discusses the forces at work against the sustainability of this setup that are becoming increasingly hard to counter.



3. Limits to Sustaining Global Co-Dependency

While some observers—notably Dooley et al. (2003)—have argued that the current setup is inherently stable and sustainable for a number of years, Eichengreen (2004), among others, has convincingly pointed out that such a view is predicated on a set of assumptions that may not apply in the current context. Indeed a number of considerations put in doubt not only the optimality of the status quo but also its sustainability. This section discusses the key obstacles to the maintenance of the current setup from an East Asian perspective focusing, in particular, on the inherent fragility that comes from its reliance on well-behaved private sector capital flows.

3.1. Optimal Exchange Rate Arrangement

Most obviously, if competitiveness is the overriding goal of exchange rate policy in East Asian countries, then the almost exclusive focus on the US dollar is not optimal for the simple reason that bilateral exchange rate stability against the US dollar does not deliver stability in trade-weighted exchange rates. While the US is an important trading partner for East Asia, so is the European Union, but both are dominated by intra-regional trade which accounts for around half of total East Asian trade. Moreover, from a domestic monetary management perspective, it is not obvious how tying the exchange rate to the US dollar would lead to optimal outcomes for output and inflation given the vastly different economic structures, shocks, and economic cycles of the US and East Asia. This has led some to suggest that a formation of an East Asian currency block that is tied to a basket of major currencies may be preferable *if* promoting trade is to be the overriding goal of monetary policy. More in-depth discussions of these issues can be found in Suttle and Fernandez (2005), Mckinnon and Schnabl (2003), and Ito and Ogawa (2000).

3.2. Costs of Sterilization

From the perspective of the literature on effectiveness of foreign exchange intervention, the sustainability of East Asia’s policy of resisting appreciation appears tenuous. In a comprehensive review of existing evidence on intervention’s effectiveness in

the emerging market context, Disyatat and Galati (2005) reach the tentative conclusion that a connection between foreign exchange market intervention and both the level and volatility of exchange rates may exist, but only at a high-frequency level—daily or intraday. There does not appear to be a reliable connection between official transactions and fundamental determinants of exchange rates that would allow central banks to determine exchange rates *independently* of monetary policy for sustained periods. The implication is that the only way for monetary authorities to impart an influence on the exchange rate for sustained periods of time would be through repeated intervention activity. The fact that central banks in East Asia have accumulated large foreign reserves as a by-product of their intervention efforts is consistent with this interpretation. In this respect, an increasingly important consideration for East Asian countries is the sterilization costs associated with continued reserve accumulation. This section discusses these costs, which comprises of both an economic and a financial element.

3.2.1. Economic Costs

A key point that should not be understated in discussions of this topic is that an under-valued exchange rate is no more desirable than an over-valued one, since the policy actions that are necessary to sustain them entail costs in the form of building up imbalances and potential risks in the future. Importantly, an undervalued exchange rate is an implicit subsidy to the export sector which may discourage economic restructuring as well as reforms that are required to unshackle domestic demand. For example, an undervalued exchange rate, by making imports of capital goods dearer, may act to restrain investment and limit consumption growth. While an appreciation in the exchange rate that is warranted by fundamentals may create difficulties for some industries in the short term, it also acts as a catalyst for an acceleration of reforms and initiatives that lead to the discovery of a country's true comparative advantage and progress up the value-added chain. An appropriately valued exchange rate thus enhances a country's ability to adjust to rapid productivity growth, as well as greater trade and financial integration with the global economy. Indeed, the sooner a country embarks on this process, the better placed it will be to reap the medium to long term benefits of such economic restructuring and countries whose exchange rates are relatively flexible are getting a head-start in this respect.

Large sustained foreign exchange intervention also risks creating distortions in the domestic financial system, increasingly so as it becomes harder to sterilize such operations—either because the purchases are so large relative to the size of local markets or the central bank's instruments are limited by the financial system's stage of development. In particular, sterilization involves changing private sector asset composition away from foreign assets towards domestic assets. If the stock of domestic financial assets is small relative to the scale of sterilization, it becomes more difficult to undertake such operations without adverse side-effects to domestic financial conditions.

Importantly, it is becoming increasingly evident that large capital inflows driven by expectations of future appreciation are contributing to the rapid buildup of foreign reserves in the region. In this respect, one side-effect of continued resistance to appreciating pressure is an inadvertent relaxation of domestic financial conditions in the form of easier credit or higher asset prices. Indeed, to the extent that capital inflows that are intermediated through the banking system entail an expansion of bank balance sheets,

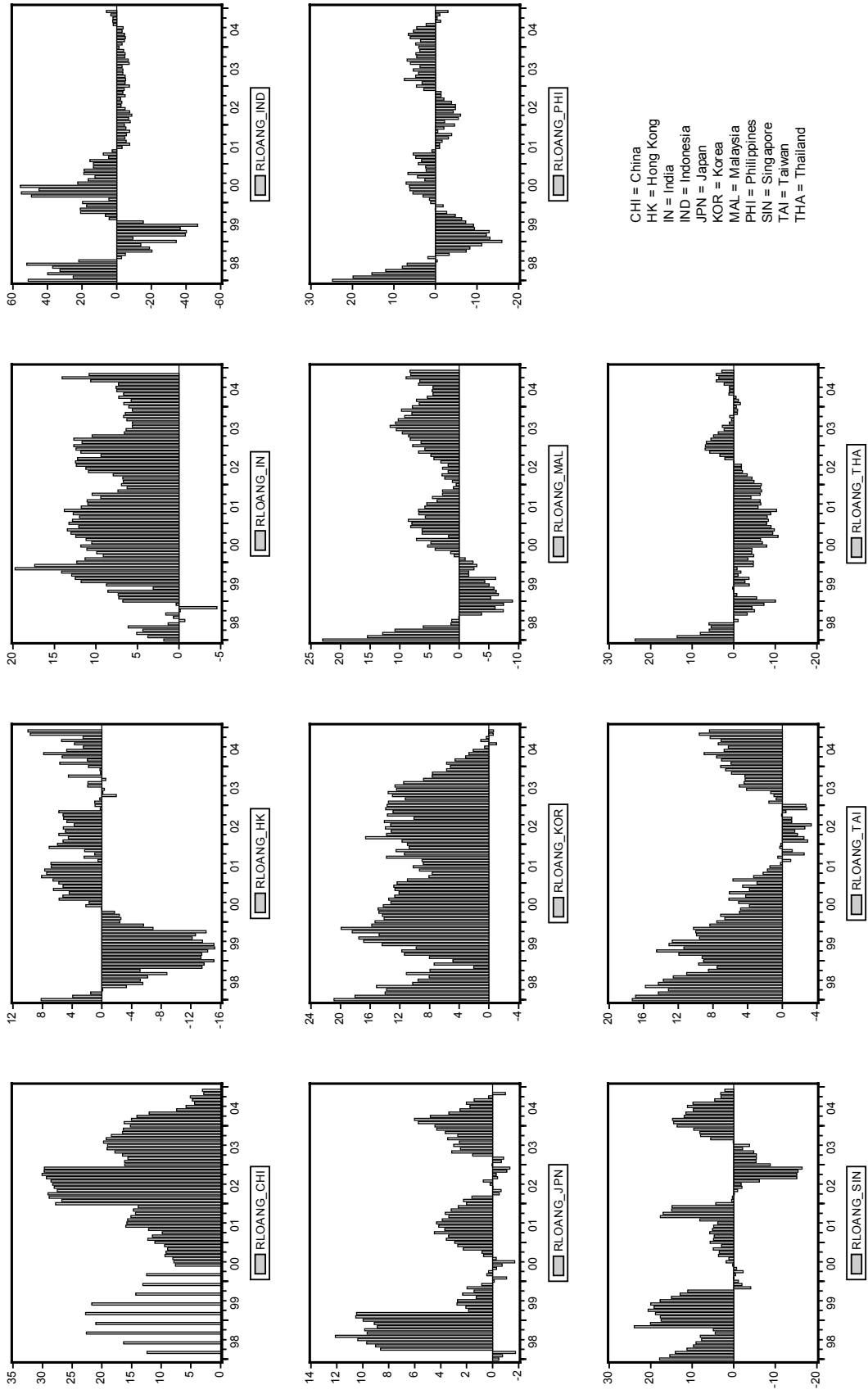
bank credit may expand rapidly, compromising loan quality and possibly underpinning asset price bubbles. While the substantial accumulation of reserves in East Asia has been associated with a pickup in domestic credit growth in China, Hong Kong, India, Malaysia, Taiwan, and—to a lesser degree—Thailand, Figure 7 suggests that the experience has not been uniform and many other factors have been at play also. Notably, Figure 8 shows that for most countries, with the exception of China and Korea, M2 money multiplier has not increased significantly in the past few years, as would have been the case with rapid expansion of bank intermediated credit. Indeed, monetary base growth in Japan, Indonesia, and Thailand have outpaced that of M2 suggesting that the process of disintermediation is still ongoing. In these countries, weak demand for credit in the aftermath of the 1997 crisis has left banks awash with liquidity.

With respect to asset prices, Figure 9 shows that equity markets in East Asia have generally been on an upward trend during the period of substantial reserve accumulation. While the run-up has been underpinned by a number of factors, not least of which include the economic recovery and attractive valuation, capital inflows have played an increasingly important part in many countries. Such developments increase the vulnerability of the economy to a subsequent reversal of capital outflows and a collapse of the exchange rate and asset prices. Thus while the effects of capital inflows on short-term interest rates may be effectively contained through sterilization, it is harder to sterilize their impact on asset prices and bank balance sheets. That said, in comparing the impacts from capital inflows and reserve accumulations across countries, it is important to keep in mind that the differences could be significant because of the underlying financial systems and economic cycles. There are no general rules that should be applied to all cases.

3.2.2. Financial Costs

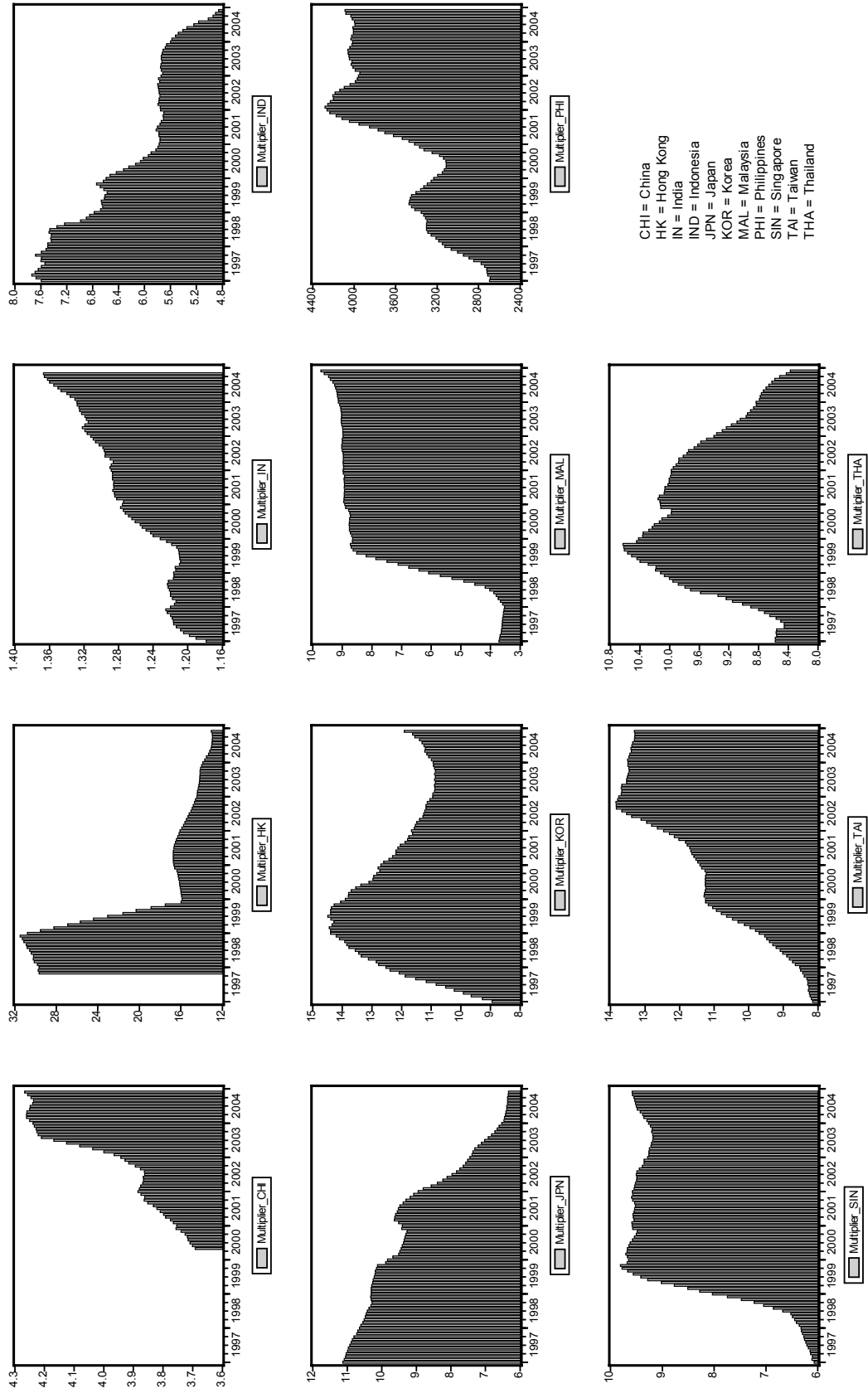
Foreign reserve accumulation also entails costs to the central bank in terms of carrying costs and risk exposures that can be significant. These can be thought of as quasi-fiscal costs since they are ultimately borne by the government. With respect to flows, sterilized exchange rate intervention to resist an appreciation typically involves a swap of domestic assets for foreign reserve assets. In the East Asian context, many central banks have sterilized their purchases of foreign reserves through the issuance of their own securities (for example in Korea, China, and Thailand) as their holdings of domestic government bonds have been run-down. A general presumption has been that intervention entails running costs because emerging market countries' assets typically have higher yields than those of industrial countries. The actual size of the running costs, however, depends on the average cost of issuance of the debt (or the interest forgone on domestic government bonds) and the return earned on typical benchmark reserve assets. During the current episode, low domestic interest rates and a simultaneous sharp decline in interest rate spreads have reduced the carrying costs of reserves in many East Asian countries. In fact, with domestic interest rates in some countries below those in the US, some central banks have actually earned a profit from the negative carry costs. In some cases, these profits also reflect a duration mis-match between the assets accumulated (long-term US treasury bills) and the liabilities issued to finance them (short-term central bank securities).

Figure 7: Real Domestic Credit Growth



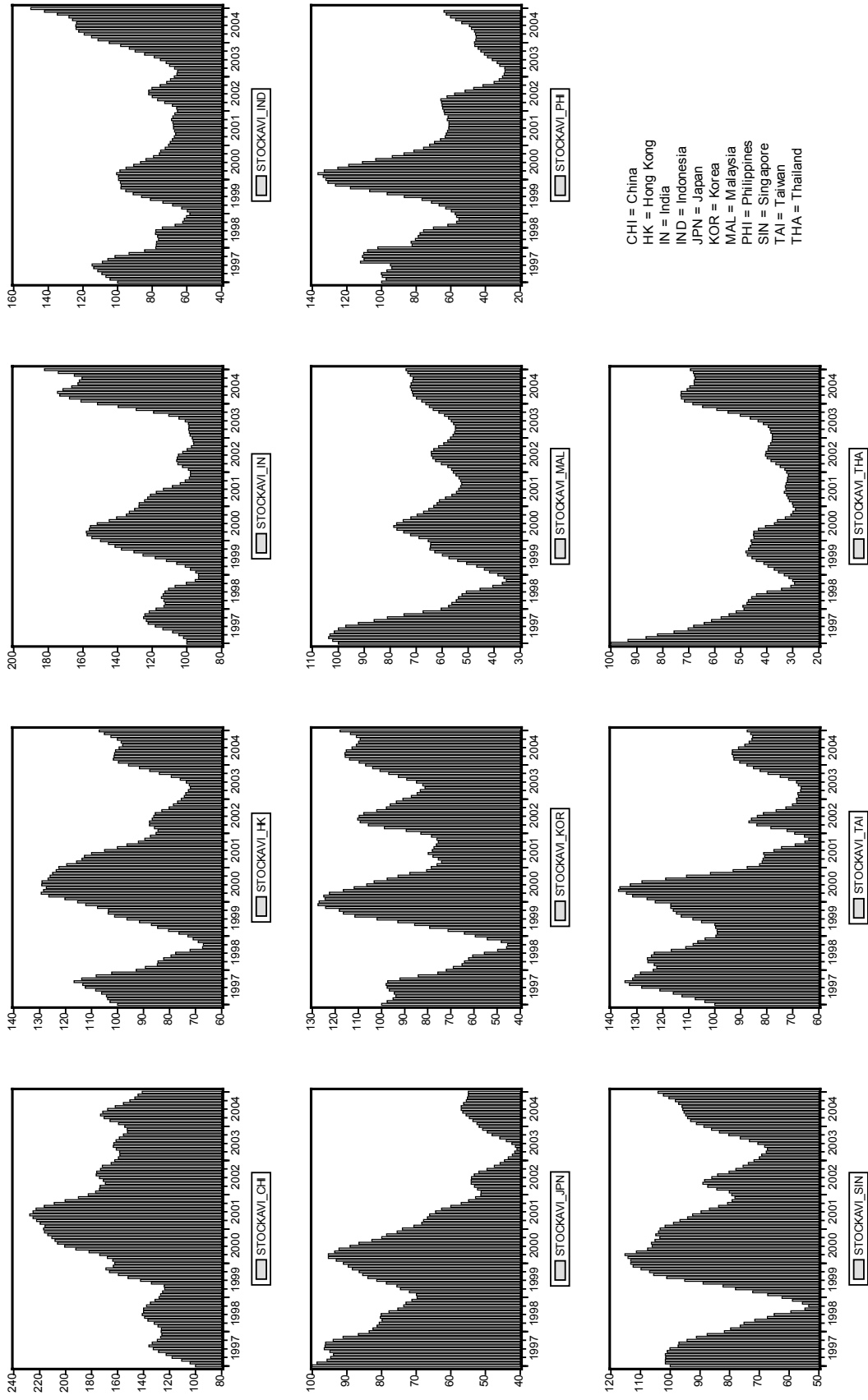
Source: CEIC, IFS

Figure 8: M2 Money Multiplier (12-month moving average)



Source: CEIC, IFS

Figure 9: Stock Market Developments (6-month moving average, Jan 1997=100)



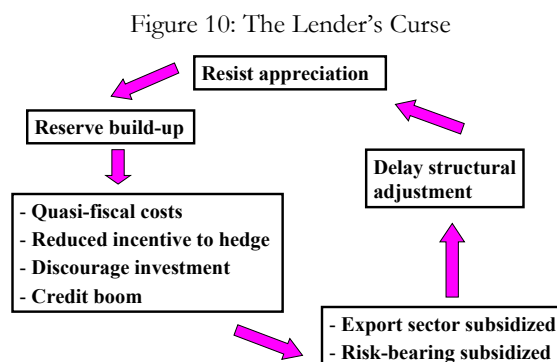
Source: CEIC, IFS

Central bank carrying costs have also been held down in the current episode by increased demand from banks for safer assets, either because of greater risk aversion or slow credit demand growth, which has helped to relieve upward pressures on the long-term bond rates. Moreover, domestic bond markets have grown larger and deeper in many East Asian countries over the past half a decade, further facilitating large-scale open market operations in many countries. The growth in domestic bond markets has helped to alleviate some of the financial market imperfections which had constrained central banks' ability to sustain sterilized intervention in the past.

The real danger with continued reserve buildup is that it entails ever greater exposure of central banks' balance sheets to both exchange rate and interest rate risk. Given that the dollar is likely to fall further and that US interest rates will eventually rise again from current historical lows, Asian central banks' accumulation of US assets may result in substantial losses. In addition, duration mismatches between foreign currency assets and local currency debt securities heighten roll-over risks. Not only do they create potential challenges for liquidity-draining operations, but they also raise future costs in the event of a rise in domestic interest rates. These risks and costs depend on the scale and duration of sterilization operations.

There are also other risks going forward. From a portfolio balance perspective, sterilization becomes increasingly difficult if domestic bonds are imperfect substitutes for foreign bonds since the authorities would have to pay higher interest rates on their sterilization bonds to encourage bondholders to switch out of foreign bonds. Such impacts may be heightened in the face of several other imperfections in local markets including illiquid bond markets, lack of sufficient substitutability between domestic assets in investors' portfolio, and the concentration of capital inflows on only certain financial market segments. For instance, capital inflows may be concentrated in equity markets while central banks sell their own papers to sterilize such inflows. If asset holdings of the non-financial private sector were perfectly substitutable, it would be expected to sell equity and willingly buy additional claims on the central bank, increasing the supply of assets demanded by foreigners. In absence of such an adjustment, the interest rate on central bank securities may rise substantially to restore the portfolio equilibrium.

The domestic implications of Asia's reserve accumulation are summarized in Figure 10, which shows that an overly zealous resistance to exchange rate appreciation entails significant costs and distortions to the economy. It implicitly involves a subsidy to the export sector as well as private risk-bearing, giving rise to potential moral hazard problems. Moreover, given the existence of restrictions on private capital outflows in some countries, it also implies that the central bank is effectively undertaking portfolio diversification into foreign assets on behalf of the private sector, which may not be optimal. The longer these cross subsidies are sustained, the more difficult it becomes to break the cycle without adverse consequences for the economy since the reliance on external demand relative to GDP will become

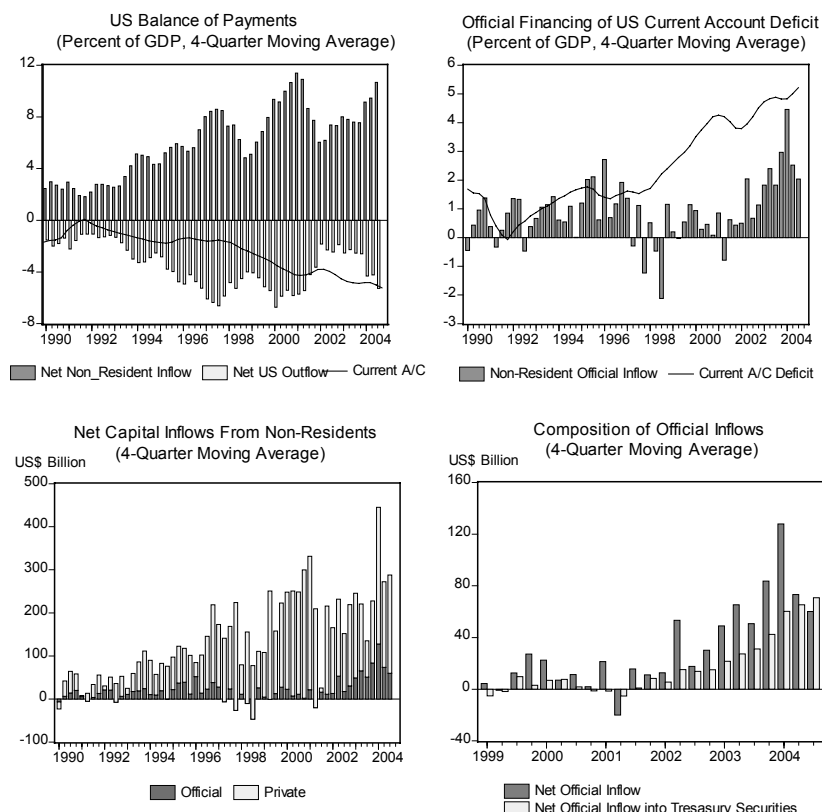


progressively larger exacerbating the eventual shift to internal demand that must take place. The sooner these countries embark on the process of adjustment, therefore, the less the burden that will fall on domestic sources of growth.

3.3. A Capital Flows Perspective

A key dimension of the costs to sustaining global co-dependency is that they are inextricably linked to capital flows. The latter is an element that is critical to maintaining the current status quo and an examination of the patterns of capital flows reveals much about the underlying risks inherent in the system. On the US side, the first panel of Figure 11 reflects the fact that to balance its external accounts, the US needs financing from non-residents not only for its current account deficit, but also for outward investment by US residents of almost the same magnitude. Thus while foreign official reserve accumulation may appear to account for an increasingly large share of the current account deficit in recent years (second panel of Figure 11), it constitutes only a small fraction—around 25 percent—of total capital inflows into the US (third panel of Figure 11). Overall, the bulk of US assets sold to foreigners is still to the private sector.² An interpretation of the

Figure 11: US Current Account and Capital Flows
(as a percent of US GDP)



Source: US Treasury, US Bureau of Economic Analysis

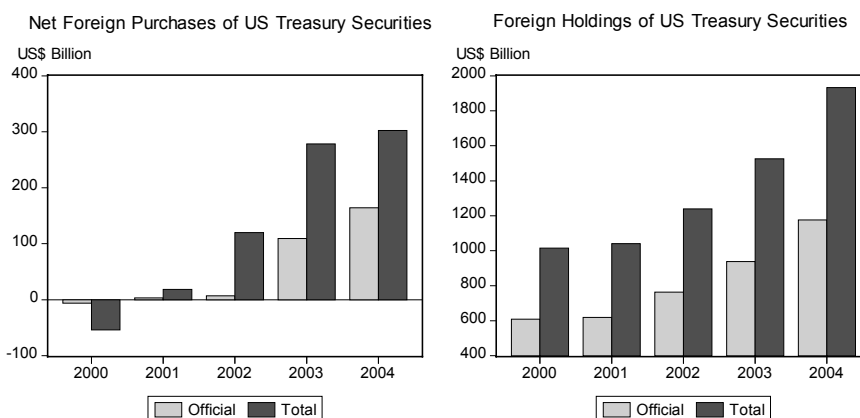
² Higgins and Klitgaard (2004) argue that measurement problems in the US balance of payments data may understate the extent of official capital inflows into the US

situation is that the US deficit is more than financed by foreign private investors and US private investment abroad is being partly matched by foreign official investment into the US. Viewed in this way, the role of private investors becomes much more prominent in quantity terms than that of official foreign inflows and suggests that the continued orderly financing of the US current account deficit rests more critically on the attitude of private investors than that of the official sector.

By their very nature, private capital flows are more prone to reversing quickly as the primary focus is on expected returns. Official flows, on the other hand, are motivated by other reasons that are likely to make them less volatile and more dependable. The fourth panel of Figure 11 shows that a majority of the official inflows into the US has been invested in treasury securities. These purchases have also expanded rapidly as a proportion of total net foreign purchases of US treasuries so that the official sector has become the largest foreign holders of such securities outstanding (Figure 12).³ With profits being less of a motivation for foreign central banks than for private investors, and because by nature they are unlikely to be disruptive, the main vulnerability of continued financing of the US current account deficit and the US dollar comes from private investors. Should they, for one reason or another, decide to place their funds elsewhere, it is unlikely that foreign central banks will have the willingness or absorptive capacity to make up the shortfall. From this perspective, the current setup does not appear as sustainable as many—notably those who view it as Bretton Woods II—argue because it is private investors, not the official sector, who are providing most of the financing to sustain the system. Official inflows into US assets make up only a small part of total capital flows into and out of the US which, on the whole, determine the value of the US dollar.

On the Asian side, it is becoming increasingly evident that increasing net private capital inflows (equivalently smaller net private capital outflows) have been offset by capital outflows engineered by the official sector in order to achieve balance of payments

Figure 12: Foreign Transactions in US Treasury Securities

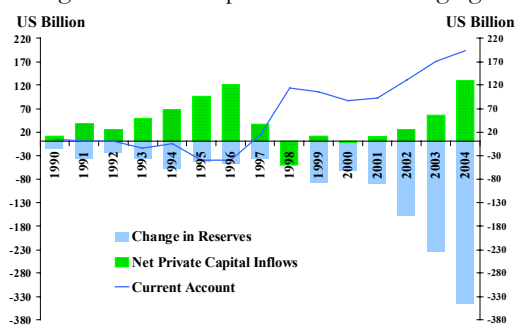


Source: US Treasury

³ Thus while it may not be the case that the foreign official sector is financing most of the US current account deficit, it does appear that they are financing much of the US fiscal deficit and contributing to holding down US long-term interest rates.

equilibrium at the desired exchange rate (Figure 13). In other words, pressure for reserve accumulation is being generated, to an increasing extent, by private capital flows. A sizeable part of the inflows into Asian countries can be attributed to greater private outflows from the US. Indeed, net FDI and equity investment into the US has moved from a surplus of around 0.8 percent of GDP in 1987-88 to a deficit of over 1.9 percent during 2003-04 as US companies have stepped up their operations abroad, while US equity investors have increasingly diversified their portfolios by increasing their foreign equity holdings.

Figure 13: Net Capital Flows to Emerging Asia



Source: IMF WEO Database

3.3.1. A Fragile Equilibrium

The critical role played by private capital flows both in sustaining global co-dependency *as well as* influencing the costs for East Asian countries in maintaining their side of the dependency points to the inherent fragility of the current equilibrium. Ensuring that the US current account deficit continues to be financed and that East Asian central banks maintain their readiness to resist appreciation pressures requires private investors to sustain their acquisition of U.S assets and not shift their investments to East Asia in an amount large enough to raise the costs of sterilization beyond that which East Asian central banks are willing to incur. The fact that the sustainability of global co-dependence relies more on a particular pattern of private investors than the official sector is precisely what makes the situation so precarious since markets are less predictable and more likely to cause abrupt changes in the exchange rate. The key question, then, is how long such a pattern of private capital flows can be expected to last going forward.

On the US side, if investors see a credible set of policies in place that will narrow the current account deficit, they may be convinced that the necessary further dollar depreciation will be relatively small, and their willingness to hold US financial assets may be maintained. Otherwise, they will be more inclined to place their funds elsewhere. From the East Asian perspective, the strength and persistence of capital inflows into the region depend, in part, on how exchange rate policies and global imbalances play out over the medium term. In particular, a perception that central banks in the region are reaching the limits of reserve accumulation as the costs of such buildup become harder to accept could result in a sharp rise in speculative capital inflows into the region in anticipation of revaluation. Such flows have already become evident in a number of countries, most notably in China.⁴ At the same time, with domestic demand having yet to recover sufficiently to facilitate a shift away from export-led growth, many market participants are still of the view that the authorities in these countries will continue to accumulate reserves. Intense perceived competitive pressure from China is also believed to be a key factor supporting continued intervention. Thus, on balance, the market does not appear to have

⁴ China's capital and financial account surplus more than doubled in 2004 to about 112 billion US dollars largely due to strong investor inflows fanned by talk of a renminbi revaluation.

a coherent view one way or another about the prospects of further reserve accumulation and sustained reserve accumulation has so far been effective in deterring all-out speculative capital inflows into the region in anticipation of profit opportunities that could be realized from exchange rate appreciation.

In this situation, the actions of central banks in the region as well as their public statements have been key determinants of market expectations. Indeed, the rapid accumulation of reserves so far has served to *focus market expectations* on a continuation of global co-dependence. This is arguably the true and most critical function that reserve accumulation has played in this context. The actual quantitative implication is secondary. Through their actions and statements, central banks in the East Asia region have so far contributed towards the creation of a market perception that there exist US dollar buyers of last resort. This reassurance is one reason why the US dollar sell-off by private investors so far has been relatively smooth and capital inflow into the East Asian region not concentrated enough to overwhelm central banks' willingness to absorb. It is becoming increasingly evident, however, that this perception is being eroded at the margin following a number of official public statements regarding possible diversification out of US assets. Not surprisingly, currency markets have typically responded with heightened volatility to such news.

Certainly, East Asian central banks have gotten to a position where they cannot diversify out of US assets without paying a significant price in terms of capital losses incurred. But while this may have been a contributing factor to sustaining co-dependency up to now, the fact that doing so requires continued *additional* purchases of US assets makes it likely that a time will come when enough is enough and the risks associated with taking on further exposure—as well as the economic costs of sterilization—will become too much to bear. The inherent fragility of the current situation is that such costs are linked to the amount of capital inflow into the region, which can swell enormously in a very short period of time should private sector's expectations of a profit opportunity materialize. If markets start to doubt the resolve of policymakers, investors may be drawn en masse into switching their funds to East Asia overwhelming some countries' willingness to bear the costs of sterilization.

This is the classic second-generation currency crisis setup. As long as markets believe that the official sector will prop up the US dollar, they continue to invest in US dollars and capital inflows into East Asia will be measured. However, if for some reason, the market believes that East Asian governments are no longer willing to subject their economies to the costs associated with resisting an exchange rate appreciation, then they abandon US dollar assets and generate massive capital inflows into East Asia that ultimately break the resolve of some countries. Thus there are multiple equilibria and the costs associated with a switch from a good equilibrium to a bad one become progressively higher the longer the initial equilibrium is prolonged. From this perspective, one reason why the current situation has been sustained for so long is that unlike the Asian crisis in 1997 where investors focused on a particular country to attack and overwhelmed the willingness of the authorities to resist in a short time, speculation against the US dollar so far has been more dispersed across countries so that the pressure on any one particular country has been less intense, prolonging the process. Moreover, it is also technically

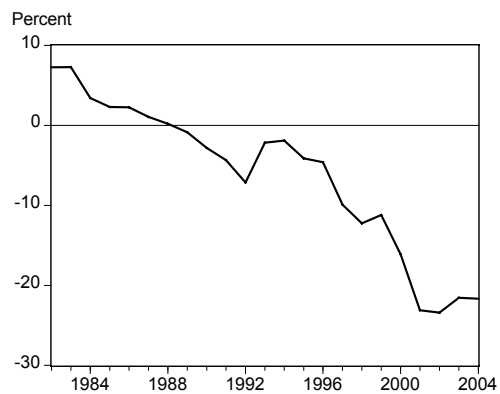
easier to defend against an appreciation than a depreciation so that East Asian governments' resolve has not been tested so far to the same degree.

That said, in a scenario where private capital flows force an end to official sector accumulation of US assets, the impact on the US dollar and interest rates will likely be severe since *both* private and official capital flows to the US dry up. Not only will official flows fail to fill the gap left behind by private foreign investors, they would actually exacerbate it. Such abrupt adjustment in prices will undoubtedly call into question the pricing of other financial assets and result in major economic dislocations. History has shown that governments facing a trade-off between the costs and benefits of adjusting an exchange rate where the political costs of adjustment are weighed heavily often end up supporting an ultimately unsustainable exchange rate for too long that by the time the adjustment becomes justified or is forced upon them, the costs involved tend to be very high. It would be unfortunate if these lessons are not kept in mind in the current context.

3.4. Unwinding of Global Imbalances

It is clear that the current trajectory of US debt accumulation is not sustainable for it implies that external debt is rising without obvious limit relative to the ability of the US economy to generate resources to service that debt (the picture is especially stark with respect to traded output which makes up only around 25 percent of total US output). Figure 14 shows that US net external liabilities have increased from a roughly balanced position in the early 1990s to over 20 percent of GDP by the end of 2004.⁵ Indeed, at this pace, US net international liabilities will eventually approach 100 percent of GDP while most analyses of US current account sustainability have used a working figure for net international liabilities of 40-50 percent of GDP as the upper limit (see, for example, Mussa (2004) and O'Neill and Hatzius (2004)). While home bias in investor preferences and restrictions to net international indebtedness have decreased, they have not disappeared and it is unlikely that global financial markets will continue to accommodate further persistent increases in US net external borrowing without requiring either higher risk premiums or a credible set of policy initiatives to reign in the US current account deficit.

Figure 14: US Net International Investment Position (as a percent of US GDP)



Source: US Bureau of Economic Analysis

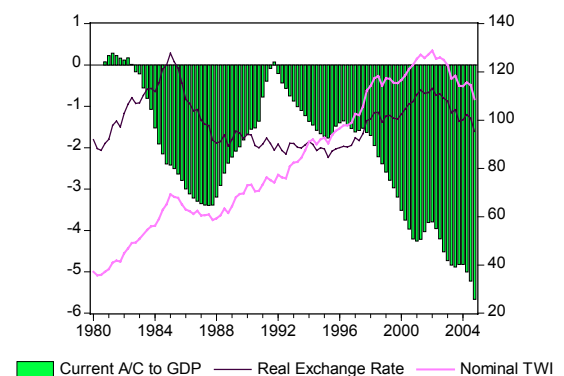
⁵ The improvement registered during 2002-2004 largely reflects valuation gains from a weaker dollar as most US liabilities are denominated in US dollars while over 70 percent of US assets abroad are denominated in foreign currencies. While this effect helps to contain US external debt in the short term, it cannot be relied upon in the longer term as foreign investors will not readily accept the risk of incurring losses without demanding compensation in terms of higher yields.

When adjustment eventually comes, forced or otherwise, the likely repercussions can be broadly separated into three areas: i) financial markets; ii) balance sheet positions; and iii) the real sector. In terms of the impact on financial markets, the main risk lies with interest rates and exchange rates. If global investors, and in particular Asian central banks, significantly curtail their accumulation of US treasuries, the result would be an upward spike in long-term yields in the US. While estimates of the degree to which reserve accumulation of Asian central banks has held down US long-term yields range from 40 to 150 basis points, the actual impact may be higher because these studies typically ignore general equilibrium effects whereby reduced intervention contributes towards US dollar weakening that, in turn, pushes up US inflation and therefore long-term yields (see Roubini and Setser, 2005). Moreover, a significant rise in US yields is likely to call into question the valuation of a whole range of assets for which the former serves as the effective discount rate. These include not only equities but also emerging market debt. Certainly, given that the correlations between US treasury yields and bond yields in emerging markets as well as in Europe are high, the spill-over effects of a spike in US yields would be widely felt. While the magnitudes are hard to anticipate, it is clear that the extent to which financial market volatility will rise by will be determined by how large and abrupt the adjustment in US long-term yields is.

With regard to the change in relative prices, the appropriate perspective from which to view possible exchange rate adjustment is not to ask ‘How much US dollar depreciation is required to reduce the US current account deficit?’ which, although very popular, implies an overly simplistic view of exchange rate determination. Indeed, most empirical models indicate that the impact of *autonomous* exchange rate changes on the US current account is very small. As emphasized by Obstfeld and Rogoff (2004), the bulk of the adjustment will be driven by a rebalancing of global demand that implies US dollar changes largely as a by-product. The exchange rate and the current account are determined endogenously and the more appropriate way to think about the former is ‘How much US dollar depreciation will likely be *associated* with a rebalancing of global demand—perhaps through saving and productivity shocks—that reduces the size of the US current account deficit to more sustainable levels?’

In this respect, most estimates of the requisite change in relative prices suggest that the US real exchange rate depreciation must be very large (ranging from 15 to 40 percent in trade-weighted terms) because the initial conditions are quite severe, the relatively closed nature of the US economy exacerbated by the small ratio of traded output in total production and the low degree of exchange rate pass-through associated with significant nominal rigidities. Given that exchange rates are prone to overshoot in their adjustment towards equilibrium, the risks of a substantial fall in the US dollar should not be discounted. Indeed, Figure 15 shows that from a long-term perspective, the depreciation of the US trade-weighted exchange rate that has taken place during the last two years still leaves the US real exchange rate above levels prevailing in the early 1990s when the US current

Figure 15: US Exchange Rate and Current Account



Source: US Bureau of Economic Analysis, US Federal Reserve

account was roughly balanced. It has also apparently not done much to slow the downward trajectory of the US current account deficit.

As to how further US dollar depreciation can be achieved, it is reasonable to assume that the counterpart to the adjustment will include most regions and countries that trade most with the US. Thus greater exchange rate flexibility in the Asian region could be expected to form part of the adjustment. That said, the popular press have often exaggerated the role that Asian currency adjustments—especially that of the renminbi—can play. Looking back at Table 1, China accounts for only around 11 percent of US total trade while East Asia as a whole (excluding Japan) accounts for roughly 29 percent. Thus a 10 percent revaluation of the renminbi would reduce the US dollar trade-weighted exchange rate by only 1.1 percent. If all non-Japan Asian currencies were to appreciate by 10 percent relative to the dollar, the US trade-weighted exchange rate would fall by around 2.9 percent. In all practicality, a US dollar adjustment of the magnitude often cited (around 20 percent) would thus have to be borne by all trading partners.

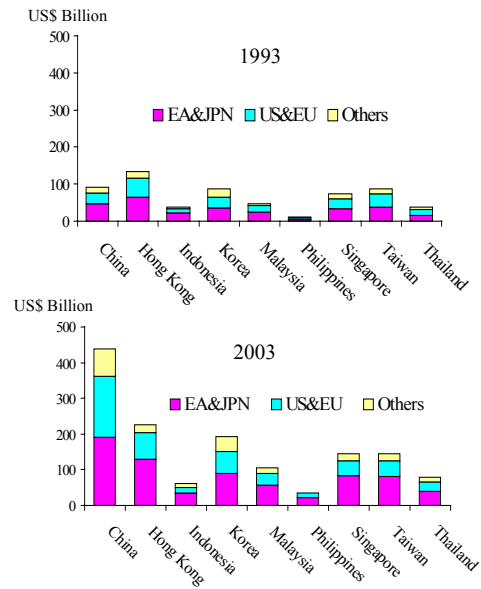
The possibility of significant price adjustments in the financial market discussed above, in turn, points towards risks inherent in financial asset holdings. In this respect, a unique feature of US foreign borrowing is that it is mostly denominated in its own currency so that a US dollar depreciation reduces the value of these obligations. At the same time, the US would gain from the fact that most of its assets abroad are denominated in foreign currency. On this dimension, at least, a fall in the value of the dollar would help to reduce the burden of adjustment for the US. On the other hand, it is also the case that much of the foreign obligations of the US (estimated at around 65 percent) are in the form of interest-bearing instruments while a much smaller share (around 45 percent) of financial assets held by US investors abroad bear interest. This structure of financial holdings implies that the US may be more vulnerable to increases in interest rates that would expand net interest payments and widen the current account deficit. For the rest of the world, especially those that have accumulated large positions in US assets, unwinding of global imbalances is likely to result in capital losses on those assets, both on account of dollar depreciation and higher interest rates that translate into lower prices of assets with fixed coupon payments.

Finally, there will be real sector implications of an unwinding of global imbalances. Indeed, the estimated impact on exchange rates discussed above implicitly assumes that the adjustment process involves a rebalancing of global demand away from the US and a pickup in foreign growth to generate the prerequisite increase in US export growth. Part and parcel of the reduction in the US current account deficit will thus be a moderation of US import growth, which will likely involve a slowdown in consumption and thus the US economy. Viewed in this way, the change in relative prices that induces greater US exports (the expenditure switching effect) would help to cushion the US economy from the shift away from consumption growth as well as possible reduction in fiscal expenditures (the expenditure reduction effect). This adjustment process whereby US consumers ease off on consumption and expand exports would likely entail less export opportunities for the Asian region, necessitating a switch to greater reliance on domestic demand as a source of growth. The next section explores how such a reduction in external demand is likely to impact on the Asian region by examining the evolution of intra-regional production/trade linkages.

4. East Asia Production-Trade Perspective

An important question for countries in East Asia is whether they can rely on intra-regional trade to fill the void that may result from a reduction in external demand from the US. Indeed, the post-1997 output expansion in East Asia has relied significantly on exports. Looking back at Figure 3, it can be seen that the ratio of exports to GDP of East Asian countries except Indonesia and Korea has steadily increased after 1997. In addition to the effects from large exchange rate devaluations, this rising share of export in total output has also been driven by increasing trade—both within the region and outside the region. Figure 16 shows for selected East Asian countries total exports and their composition classified by destination in 1993 and 2003 (note that EA denotes emerging Asia in the figure). For most countries total exports more or less doubled over the past ten years, while Chinese exports quadrupled. Increased exports were attributable to Emerging Asia and Japan, and to a lesser extent the US and Europe. China is again a special case: its exports to the US and European markets have increased proportionally more than other countries.

Figure 16: Composition of Exports by Destination



Source: Direction of Trade Statistics and CEIC

Figure 17 is suggestive of a possible explanation behind China's rapid export growth to the US and Europe. In particular, the growth rates of NIE and ASEAN4 exports to the US have declined while those to China have risen. Thus exports of emerging Asian countries appear to have, to some extent, been diverted to China and away from the US. This would be consistent with the emergence of the so-called 'triangular trade pattern' whereby East Asian countries export intermediate goods to China for processing, and China, in turn, exports final products to the US and Europe (first panel of Figure 18). Indeed, the second panel of Figure 18 shows that China's position in triangular trade can be characterized by growing deficits with Asia (possibly in intermediate goods) and rising surpluses with the US and Europe (possibly in final goods). Figure 19, which is based on data prepared by Gaulier et al. (2004), further analyzes China's imports and exports by stage of production. The figure confirms that China is indeed a manufacturing hub for re-exports, showing that most of China's imports are intermediate goods and that most exports are final goods. This is further evidence that the rapid expansion of Chinese trade has, in part, been driven by triangular trade.

Figure 17: Asian Exports to China

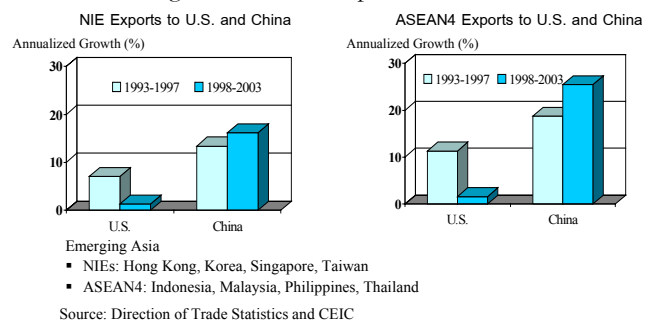
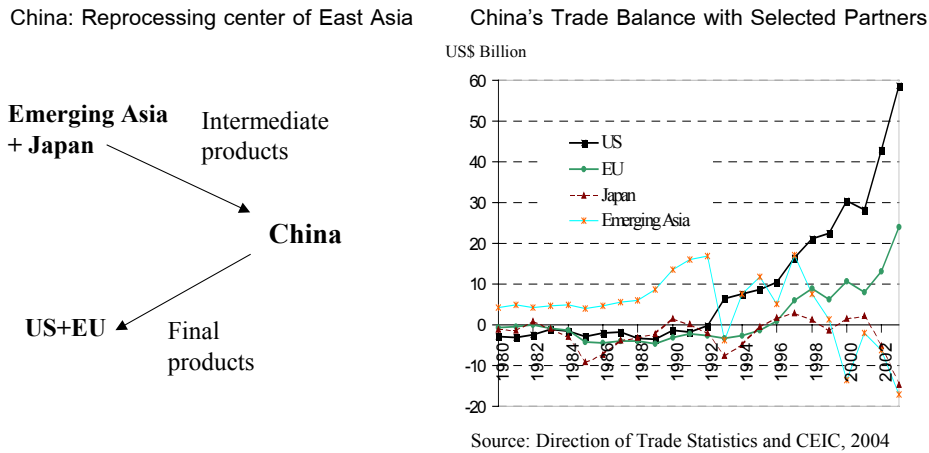
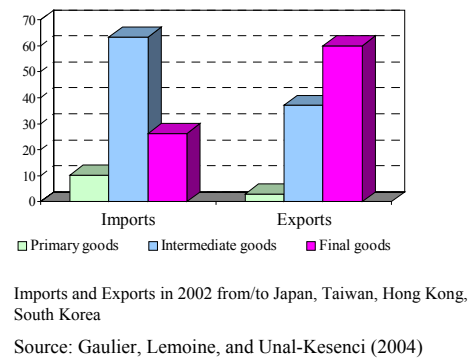


Figure 18: Triangular Trade



The aforementioned structure of Chinese trade raises some important considerations. First, as echoed by Greenspan (2005), the widening of the US bilateral trade deficit with China has largely been in lieu of wider deficits with other Asian economies. If measured by value added instead of gross value, the US bilateral deficits with China would have been far less. Second, and related to the first point, a revaluation of the renminbi would have limited consequences for overall US imports as well as for US exports that compete with Chinese products in third markets. Such a revaluation would affect Chinese value added but not the dollar cost of intermediate goods imported into China from the rest of Asia, which represents a significant share of the gross value of Chinese exports to the US and elsewhere. That said, to the extent that the currencies of other East Asian countries appreciate as well, the impact on Chinese export's price competitiveness would be somewhat greater.

Figure 19: Chinese Trade by Stage of Production



Empirical studies confirm the dependency of East Asian exports on demand from industrialized countries. Kobsak et al. (2003), for example, conducted a statistical test for regional dependency on the G3 countries. Their results from panel regressions of East Asian export growth on East Asian domestic demand growth, export prices, and G3 output growth are reproduced in Table 2. Two findings are noteworthy. First, in addition to their dependency on domestic demand within the region, total East Asian exports also significantly depend on G3 demand. Indeed, the export elasticity with respect to G3 output growth is higher than that with respect to East Asian output growth. Second, when the dependent variable is growth in East Asian exports to countries within the region, G3 output growth is found to remain significant, even after controlling for regional demand. These two findings provide further support for the importance of external

Table 2: Determinants of East Asian Export

Dependent Var.	OutputGrowth ^{G3}	OutputGrowth ^{EA}	ExportPrice
Exports	1.776**	1.463**	-0.036**
Exports to G3	1.682**	0.801**	-0.549**
Exports to EA	1.831**	2.045**	-0.461**

**statistically significant at the 0.05 level

Source: Kobsak et al. (2003)

demand for East Asian exports, and imply that East Asia cannot rely solely on intra-regional exports to sustain growth if demand from Europe and the US weakens significantly.

5. The Need For Coordination

The arguments put forward so far highlight the fact that the current configuration of macroeconomic policies in the world involves stock and flow imbalances on a scale that is highly unstable, fragile, and unsustainable. It would be unwise not to at least prepare for the very real possibility of a disorderly breakdown of the setup. Moreover, and perhaps more worrisome, the current status quo is laying the seeds for protectionist measures that could quickly escalate and impinge upon global trade. Because present concerns about external imbalances are fundamentally global concerns, the exchange rate adjustment needed to reduce these imbalances should be made from a multilateral and global perspective. Certainly the recent move by China to introduce greater flexibility in its exchange rate regime and Malaysia's immediate reaction in a similar direction have highlighted the tensions and reverberations associated with intra-regional exchange rate movements in Asia. Given the strains from private capital flows in the region that may be generated by such adjustments, actual or perceived to be forthcoming, it would seem preferable that they are undertaken within a framework of regional coordination that would also help to limit undue intra-regional tensions.

The bottom line is that either policy makers will have to put in place credible adjustment policies to help anchor expectations and reduce risk of reversals in investor preferences or the market will force them to adjust under much less pleasant circumstances. Against this background, a case for greater regional coordination can be made based on three main arguments: i) the status quo is not sustainable; ii) there is potential for costly adjustment when it does eventually happen if there is no contingency plan in place; and iii) there are mutual benefits to be had from coordination. Certainly the US dollar's position as the world's reserve currency increases the risk that the world will continue to finance the US current account deficit for too long—as they have—increasing the eventual cost of adjustment that will occur. From the East Asian perspective, there has clearly been a coordination failure.

While it has been argued above that allowing the exchange rate to adjust towards its fundamental equilibrium value is in each East Asian country's long-term interest, it would be politically very difficult for a single country to accept unilateral appreciation of its currency. Not only would such a move put at risk its external competitiveness making it hard to accept, there is also the risk that doing so could focus market expectations on the appreciating country, resulting in heightened speculative capital inflow and even greater pressure for appreciation than initially. In addition, it could be argued that the current exchange rate arrangement in the region is a second-best one and alternative cooperative exchange rate arrangements may be usefully explored to achieve the desired combination of relative intra-regional exchange rate stability and domestic monetary control.

The key challenge to achieving effective coordination is that the policy trade-offs involved are specific to each country so that it is difficult to reach an agreement on the details, especially size and timing of any exchange rate movement. It is unlikely that East

Asian countries in the current context will be willing to subordinate their individual interest to the collective interest when push comes to shove. While important strides have been made with respect to greater regional cooperation, they are much more weakly institutionalized than they were in Europe during the Bretton Woods era. This stems partly from vast differences in the level of development which, in turn, give rise to differing policy priorities. There is also a notable lack of peer pressure, collective surveillance, and political sanctions that may help to encourage cooperation. Indeed, it is the lack of deep cohesion among the countries in East Asia that has given rise to the collective action problem and resulted in the current situation in the first place.

5.1. Goals of Coordination

In practical terms, the challenge is to bring about a set of policies to ensure that exchange rate and other key macroeconomic adjustments associated with a reduction in global payments imbalances take place in a manner that does not involve significant disruptions to economic growth in the US and the rest of the world. In this respect, the focus should be on identifying a set of policies that would give reasonable results that respect the interests of all countries. In the US, the emphasis should be on achieving a substantial reduction of the government deficit and improving private savings. These are needed fundamentally for their own sake and should be achieved at a measured pace. In other industrial countries, especially Japan, the policy challenge is less straightforward. Given relatively weak domestic demand, over-extension of government budgets, and already accommodative stance of monetary policies, designing measures to support more rapid growth of domestic demand to offset the negative impulse associated with deteriorating current account balances will be more difficult. In these countries, acceleration of structural reforms, especially in the relatively inefficient domestic sectors, to boost domestic demand and growth should be a priority.

For the Asian countries, a key element in the orderly adjustment of the dollar is a policy environment that does not discourage a shift towards domestic-oriented growth. The challenge is to find the right balance between greater investment and consumption to offset a moderation of exports. In countries where investment is already expanding rapidly, as in China for example, the absorptive capacity for additional investment may be low. The focus should be to raise consumption of the current generation. In others, notably ASEAN members, the onus remains on boosting investment. Indeed, if a greater portion of the region's excess savings can be directed towards more productive uses through investment in infrastructure and projects that lead to improvements in productive capacities, tangible pay-offs could be realized in terms of higher potential economic growth in the long term. In many countries such as Korea, Malaysia, Thailand, and Taiwan, there is also scope for fiscal policy to be used to support demand and offset some of the fall in external demand associated with a reduction of the US current account deficit. Finally, ongoing efforts at financial sector reform should be emphasized so as to facilitate an increase in the level and quality of investment while reducing the need for saving. These initiatives should bring about a reallocation of resources between the traded and non-traded goods sectors that is more efficient. Of course, such reallocations are likely to be disruptive to certain segments of the economy and measures to cushion the

impact, including labor market initiatives and increased social safety nets, should be an important element of the government's agenda.

A crucial ingredient in all of this is greater exchange rate flexibility, not least because this will provide countries in the region with more monetary control that could potentially be used to offset the negative impact from a rebalancing of global demand. Given East Asia's relatively strong external payments positions, it appears that they would be able to absorb some deterioration in external payments positions as a partial counterpart to needed rebalancing of global demand and the real appreciations against the US dollar associated with the needed improvement in the US current account deficit. Provided that Asian currencies appreciate together as a whole against the US dollar, the negative impact on demand should be moderate and within the capacity of macroeconomic policies to offset. Therefore, the main focus of regional cooperation in this respect should be on achieving some form of coordinated exit from the current unsustainable status quo of unilateral reserve accumulation. Indeed, a greater willingness to absorb exchange rate appreciation in any one country makes much more sense and is more easy to rationalize politically if it is part of a broader modification of exchange rate policies of most East Asian countries since a given appreciation against the US dollar would mean much less in terms of effective appreciation if it is accompanied by significant appreciations of other regional currencies.

Under the cooperative solution, countries may lose some policy independence, but none of the suggested policies are against a country's long-run interests. Indeed, the main elements of the global strategy are steps that are clearly in the self-interest of individual countries. In this respect, one of the strongest forces working for greater coordination is political pressure for stable currencies in the East Asian region stemming from continued trade integration. The current benign economic and financial conditions also make the task of policy coordination to reduce global imbalances all the more important and timely.

6. Conclusion

The current configuration of global imbalances is not sustainable and policymakers in the countries and regions involved need to think seriously about how to best prepare for its unwinding. In East Asia, official reserve accumulation has given countries in the region considerable room and time to adjust their production structures, but at the cost of increasing strains on central bank balance sheets and the domestic financial sector. It is thus in the interest of each country to agree on some sort of exit strategy from the current status quo. Indeed, as reflected in China's and Malaysia's modification of their respective exchange rate regimes as well as recent public statements by senior officials regarding the wisdom of continued reserve accumulation and the appropriate allocation of reserve assets, policymakers in the region are becoming increasingly aware that the current strategy entails significant risks, creating an incentive for them to modify it sooner than later.

The fact that the sustainability of the current setup relies more on well-behaved private capital flows than official flows highlights the inherent fragility of the situation and points towards much needed urgency in tackling the problem at the policy level. Motivated by maximizing returns, private investors will be quicker to act in anticipation of

future changes in asset prices than the official sector. As has been illustrated time and time again, these forces operate quickly and powerfully often overwhelming official efforts to resist them. While a number of recent regional initiatives point towards an inherent interest among the region's policymakers in fostering deeper financial integration and monetary cooperation, when such cooperation entails some compromise in terms of domestic policy objectives, policymakers have been much less keen. The dangers highlighted in this paper suggest that the consequences of such benign neglect can be quite detrimental if allowed to persist for much longer.

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