Chapter 2

Growth Rebalancing and Investment in Asia and the Pacific

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CHAPTER 2

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Especially since the Asian Financial Crisis (AFC) of 1997–98, the countries of Asia and the Pacific have, to varying extents, focused their production structures increasingly towards exports, meaning that resources have moved away from production for the domestic market and towards production of traded goods and services destined for external markets. Large current account surpluses have accumulated in these countries and corresponding deficits elsewhere. This trend is unsustainable. It is certain that it must end but the timing is uncertain. Asia is vulnerable to an adjustment problem arising at short notice. The suggestion is that some "rebalancing" now—away from reliance on external demand and towards domestic demand—can reduce this vulnerability by reducing Asia's export dependence. Increasing investment is one way of doing this. Policy initiatives that could achieve increased investment levels in Asia include: increased public sector infrastructure investment; improvement in the investment climate, including more consistent application of the rule of law; and better access to finance. This can include development of a domestic corporate bond market and reform of collateral laws to enable a wider range of securitization beyond real estate and other fixed assets and reduced credit risk by facilitating corporate restructuring.

Keywords: global imbalances, growth restructuring, investment, economic reform

JEL Classifications: F40, O11, E22

1. Introduction

Since the Asian Financial Crisis (AFC) of 1997–98, the countries of Asia and the Pacific have, in aggregate, run huge annual current account surpluses. Much the same has been true of the oil-exporting countries of the Middle East. The counterpart of these surpluses has been correspondingly huge current account deficits in the rest of the world, including Europe and, most especially, the United States. Over the decade and a half that this process has continued, huge stocks of debt have accumulated. Much of this is US Government debt owed to the central banks of the East Asian countries. About half of it is held by China. It is of course expected that the debt will eventually be repaid and this implies that the surpluses must eventually turn into deficits, and vice versa. Indefinite accumulation of debt is unsustainable.

For a variety of reasons, many observers regard the process described above as unsustainable, even in the short run. First, East Asian countries might be unwilling to continue to accumulate US debt and might even wish to reduce the stock they hold. Second, the United States might be unwilling to allow this accumulation of indebtedness to continue and might indeed wish to reduce the stock of debt it currently owes. The two are not mutually exclusive and could happen at the same time. They both rest on the fear that the burden of debt servicing might suddenly become intolerable for the debtors—notably, the United States. The emphasis is on "suddenly", meaning that an unexpectedly rapid adjustment becomes necessary.

There is some possibility that East Asia's current account surpluses might have to decline, and even turn into deficits, very quickly. Eventually, this must happen. The question is *when*. If the answer is "gradually and predictably", there is not necessarily any problem. But if it is "soon", at an unexpectedly rapid rate, there could be a serious adjustment problem involved. By anticipating this potential problem, it might be possible to avoid the large-scale unemployment and other social costs that would otherwise result from an unanticipated economic crisis. To put it mildly, these events are uncertain. "Growth rebalancing" is essentially a problem of risk management.

From the perspective of the Asian-Pacific countries, the interest in growth rebalancing is motivated by two concerns. First, there is the possibility that current

account surpluses (positive flows) will have to turn into deficits (negative flows) at short notice, leading to social disruption and other adjustment costs. Second, there is the fear that the stock of debt owed to them might become so high that repayment becomes impossible. The first concern is more immediate.

Especially since the AFC, the countries of Asia and the Pacific have, to varying extents, focused their production structures increasingly towards exports, meaning that resources have moved away from production for the domestic market and towards production of traded goods and services destined for external markets. If the current account surpluses are to be reduced significantly, or even reversed, and if massive unemployment is to be avoided, resources must be reallocated in the reverse direction—away from production for the export market and towards production for the domestic market. For the deficit countries the problem is exactly the reverse. The policy imperative is similar in both cases: to avoid the disruption, especially the large-scale unemployment, that could result from a required rate of adjustment that is too rapid.

Growth rebalancing is the term that has been applied to describe this process. The issue is not really whether growth rebalancing will occur, but when, at what rate and by what means. For countries seeking to reduce their current account surpluses, "growth rebalancing" means reallocation of resources away from production for external markets (export) and towards production for domestic markets. For deficit countries such as the United States, growth rebalancing means exactly the opposite.

In the current global environment, Asia is vulnerable to such an adjustment problem arising at short notice. The suggestion is that some "rebalancing" now—away from reliance on external demand and towards domestic demand—can reduce this vulnerability by reducing Asia's export dependence.

2. Global Imbalances

Current account imbalances are not necessarily a problem. They reflect what Obstfeld and Rogoff (1997) and Corden (2007, 2011) call international inter-temporal trade. One country (the surplus country) is exchanging current goods and services for financial assets that are claims on goods and services in the future. The other country (the deficit country) is doing the reverse. Mutual gains from trade can arise from these transactions because the initial circumstances of the countries involved are not the same. For some countries, it makes sense to save more now in order to consume and invest more later. For others, the reverse applies. In this respect, inter-temporal trade is not fundamentally different from contemporaneous trade in goods and services. But basic differences do exist. The time dimension can mean that the individuals obliged to repay a debt might not be the same as those who incurred it. The outcomes chosen by this generation of Americans, for example, can create an unwelcome problem for the next generation.[1]

Since the 1997 AFC, Asia has run large current account surpluses and the rest of the world (especially the United States) has run correspondingly large deficits. Figure 1 summarizes the annual magnitude of these deficits added over the 12 countries:

Group I: Crisis affected

- Indonesia
- Korea
- Malaysia
- the Philippines
- Thailand
- Vietnam.

Group II: Not crisis affected

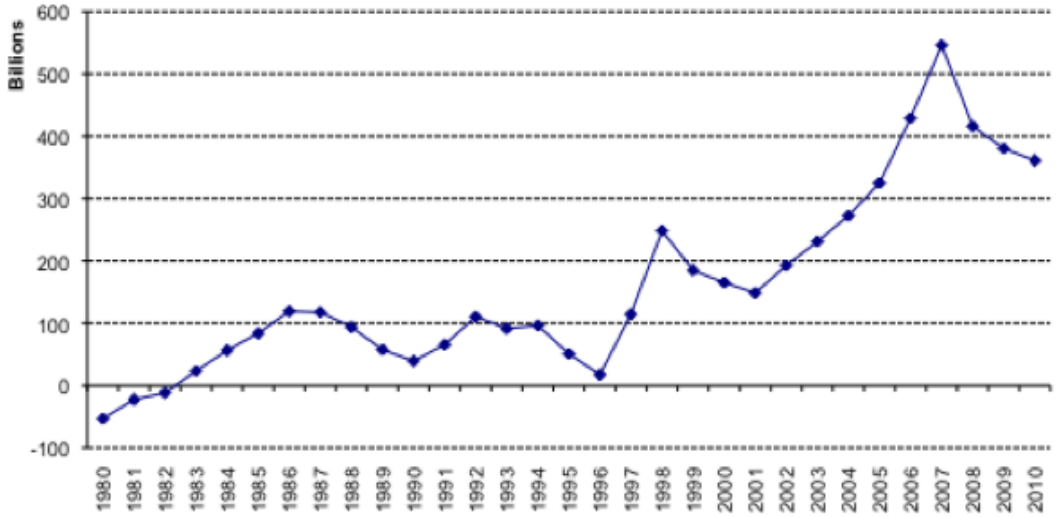
- Australia
- China

[1] This phenomenon is already being recognized politically in the United States under the label "intergenerational theft".

- India
- Japan
- New Zealand
- Singapore.

For reasons that will become clear from the subsequent discussion, the 12 countries are grouped above according to those significantly affected by the 1997–98 AFC (Group I) and those not significantly affected (Group II).

Figure 1. Annual Current Account Balance: 12 Asian-Pacific countries (Constant 2000 US$)



Source: IMF, CEIC.

3. Saving and Investment Balances in Asia

Table 1 summarizes, in the first column, the cumulative current account surpluses of the 12 Asian-Pacific countries listed above, added across the years 1996–2009, inclusive. Here we use cumulative surpluses because this is the counterpart of the stock of outstanding debt. The calculations are performed in US dollars, expressed in constant 2009 prices. China accounts for just more than half of the total accumulated current account surpluses of all 12 countries. The Group I (AFC-affected) countries

represent about one-quarter of the total. The remaining four columns draw upon the familiar macroeconomic identity that the current account balance is equal to the difference between aggregate saving and aggregate investment. Aggregate saving can be further divided into public saving (the government's budgetary balance) and private saving (household plus corporate), and aggregate investment can be similarly subdivided into public and private, giving:

$$CAB = S - I = S_{PUB} + S_{PRIV} - I_{PUB} - I_{PRIV} \quad (1)$$

In the Group I countries there was a large increase in private savings accompanied by a somewhat smaller increase in private investment. Public investment increased by slightly more than public saving, offsetting the difference between private saving and investment. In the Group II countries the total current account surplus was due primarily to a massive increase in private saving. Chinese private savings were the largest but were almost matched by Japanese private saving. When public sector savings are taken into account, Japan's aggregate savings were larger than China's. In addition, there was a very large increase in both private and public investment in the Group II countries. Table 2 presents these data as shares of the total current account surplus of all 12 countries. Figure 2 shows this graphically.

Table 1. Cumulative Current Account Balance and Components, 1996–2009 (Constant 2009 US$ millions)

	Cumulative current account balance	Cumulative public saving	Cumulative private saving	Cumulative public investment	Cumulative private investment
Australia	–127,094	180,211	2,307,637	303,765	2,311,177
China	1,917,468	–576,539	17,858,557	9,973,138	5,391,411
India	–328,925	–484,810	3,657,512	927,000	2,574,628
Indonesia	275,526	–46,787	1,751,369	225,660	1,203,397
Japan	837,139	1,027,368	16,740,204	4,079,948	12,850,485
Korea	230,140	230,589	2,791,411	492,722	2,299,137
Malaysia	395,659	62,272	846,944	236,611	276,946
New Zealand	1,060	67,583	263,332	69,911	259,945
The Philippines	–46,364	–45,096	301,299	63,290	239,278
Singapore	412,850	128,917	802,324	89,233	429,158
Thailand	170,338	–36,944	1,014,089	235,017	571,791
Vietnam	–73,287	–44,174	260,012	140,079	149,045
Total	**3,664,511**	**462,592**	**48,594,690**	**16,836,374**	**28,556,397**
Group I	**952,013**	**119,861**	**6,965,124**	**1,393,379**	**4,739,593**
Group II	**2,712,498**	**342,730**	**41,629,566**	**15,442,994**	**23,816,804**

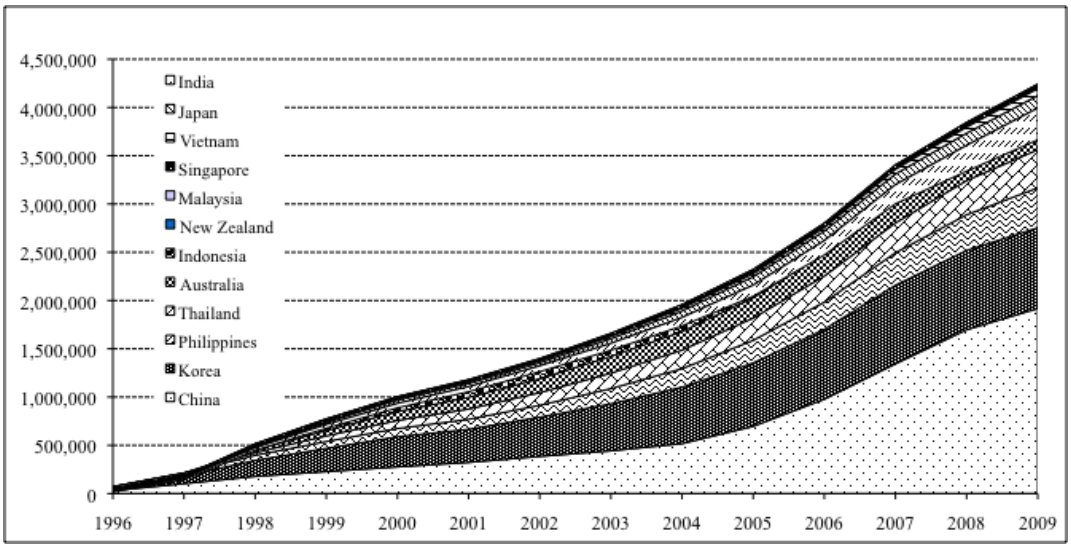
Note: Group I = Indonesia, Korea, Malaysia, the Philippines, Thailand, Vietnam; Group II = Australia, China, India, Japan, New Zealand, Singapore.

Table 2. Cumulative Current Account Balance and Components, 1996–2009 (Constant 2009 US$, percentage of total)

	Cumulative current account balance	Cumulative public saving	Cumulative private saving	Cumulative public investment	Cumulative private investment
Australia	–3.47	38.96	4.75	1.80	8.09
China	52.33	–124.63	36.75	59.24	18.88
India	–8.98	–104.80	7.53	5.51	9.02
Indonesia	7.52	–10.11	3.60	1.34	4.21
Japan	22.84	222.09	34.45	24.23	45.00
Korea	6.28	49.85	5.74	2.93	8.05
Malaysia	10.80	13.46	1.74	1.41	0.97
New Zealand	0.03	14.61	0.54	0.42	0.91
The Philippines	–1.27	–9.75	0.62	0.38	0.84
Singapore	11.27	27.87	1.65	0.53	1.50
Thailand	4.65	–7.99	2.09	1.40	2.00
Vietnam	–2.00	–9.55	0.54	0.83	0.52
Total	**100**	**100**	**100**	**100**	**100**
Group I	**25.98**	**25.91**	**14.33**	**8.28**	**16.60**
Group II	**74.02**	**74.09**	**85.67**	**91.72**	**83.40**

Note: Group I = Indonesia, Korea, Malaysia, the Philippines, Thailand, Vietnam; Group II = Australia, China, India, Japan, New Zealand, Singapore.

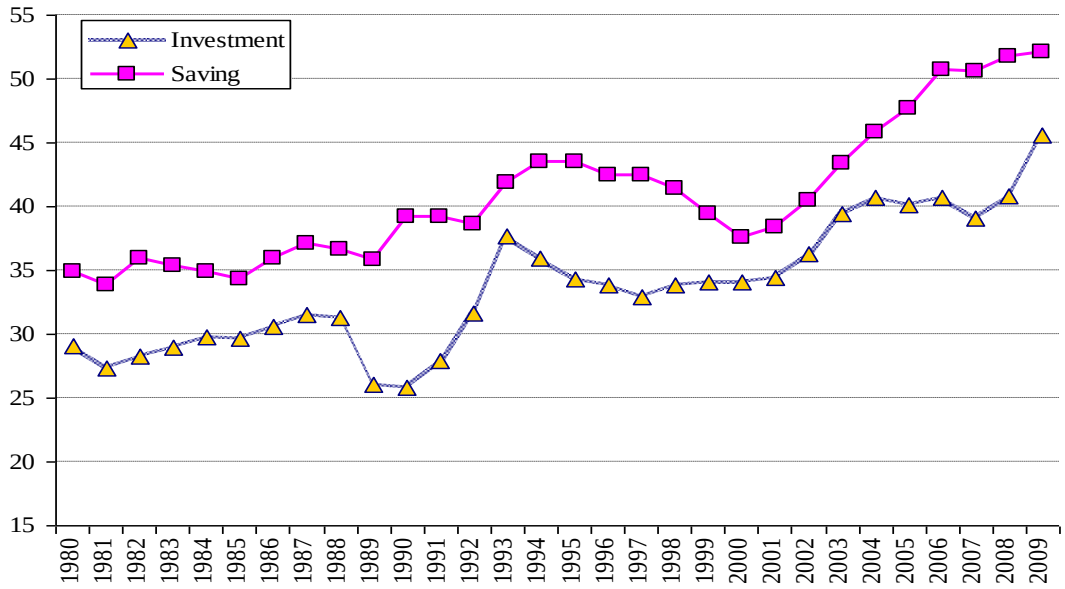
Figure 2. Cumulative Current Account Balances: 12 Asian-Pacific Countries



Source: IMF, CEIC.

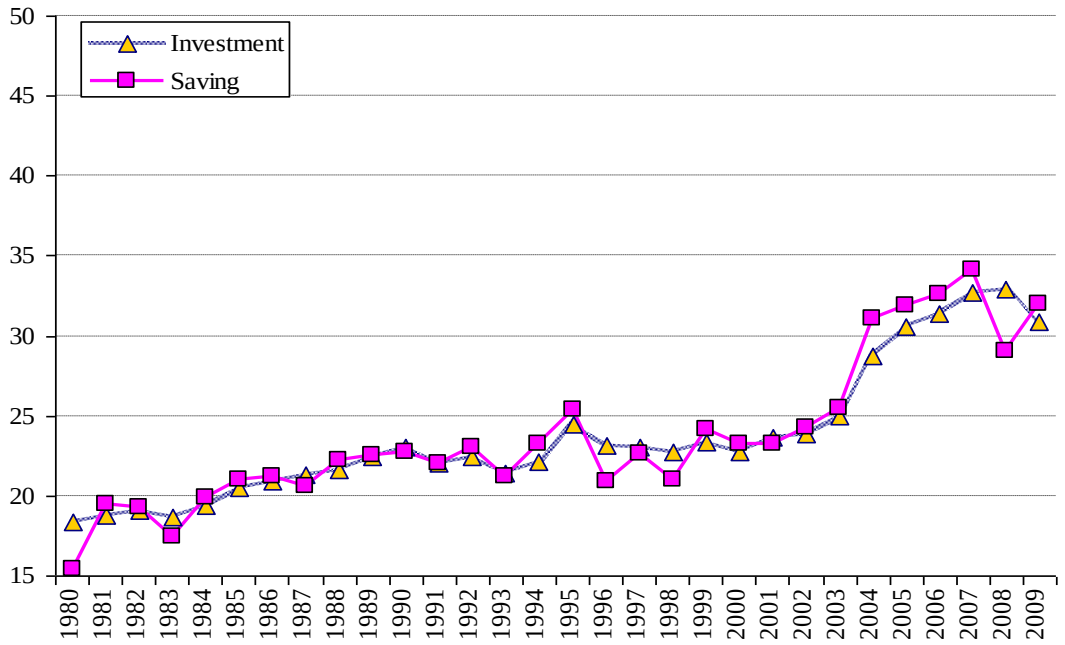
Figures 3–7 examine these data by looking at aggregate savings and investment over time, expressed as shares of GDP. In China (Figure 3) the aggregate savings share increased dramatically after 2000. The investment share also increased, but not as much, hence the huge surplus. In India (Figure 4), both saving and investment shares increased significantly but by similar amounts. In the group of countries seriously affected by the AFC (Indonesia, Korea, Malaysia, the Philippines and Thailand) shown in Figure 5, both saving and investment shares declined following the AFC, but the decline in investment shares was larger, leading to a substantial current account surplus. Table 1 makes it clear that private investment is the principal source of this decline. Even though the absolute level of private investment increased, it declined significantly as a share of GDP. Figure 6 shows similar information for Australia and New Zealand, confirming small current account deficits. Finally, from Figure 7 it is clear that when the data for all 12 countries are added, the share of savings in aggregate GDP increased from about 2002 but the share of investment increased even further.

Figure 3. Saving and Investment Shares of GDP: China (percent)



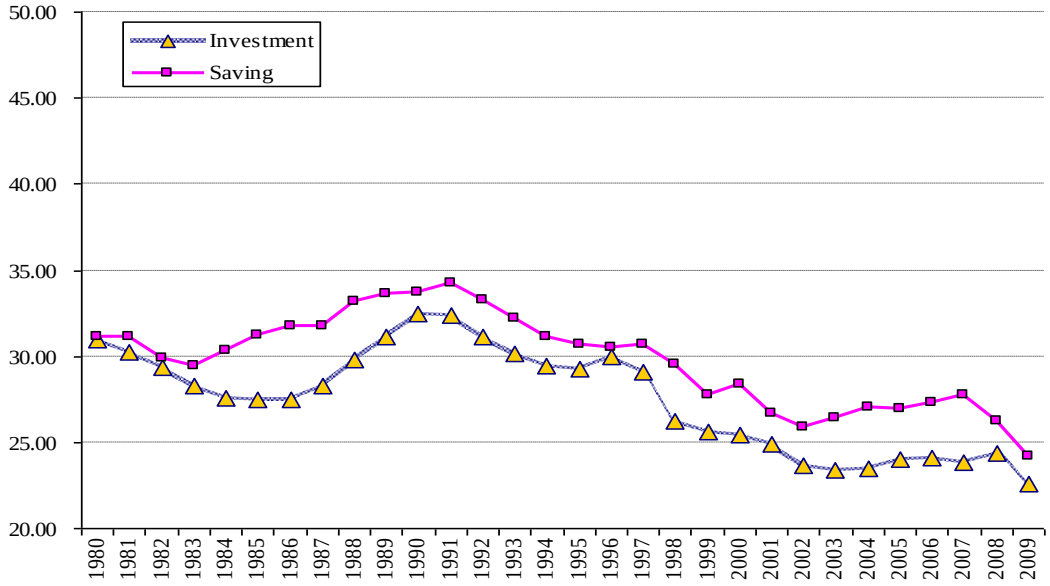
Source: IMF, CEIC.
Note: Investment = gross fixed capital formation; saving = gross domestic savings.

Figure 4. Saving and Investment Shares of GDP: India (percent)



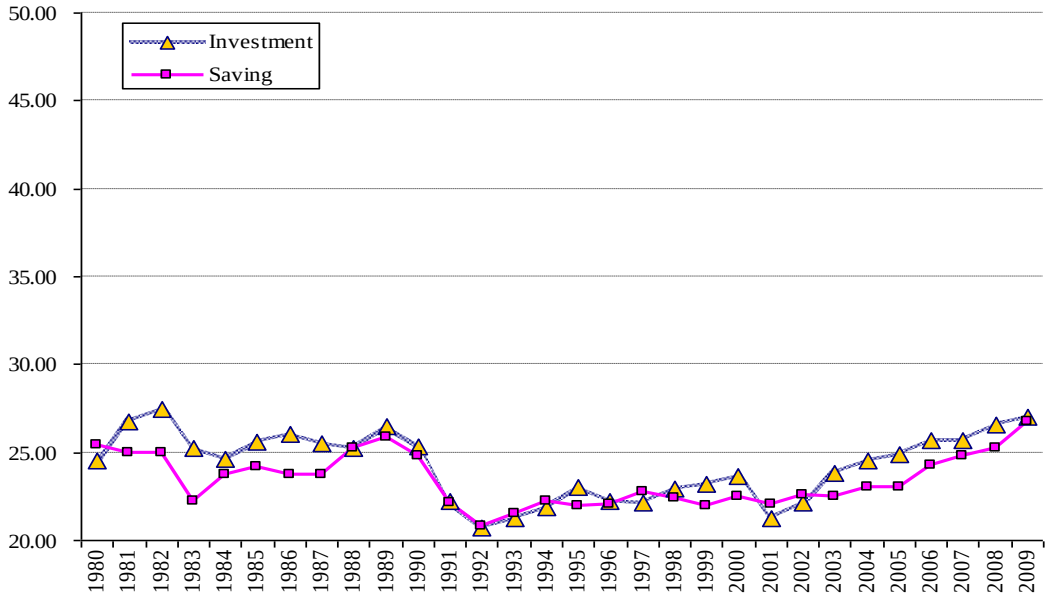
Source and note: See Figure 3.

Figure 5. Saving and Investment Shares of GDP: Indonesia, Korea, Malaysia, the Philippines and Thailand (percent)



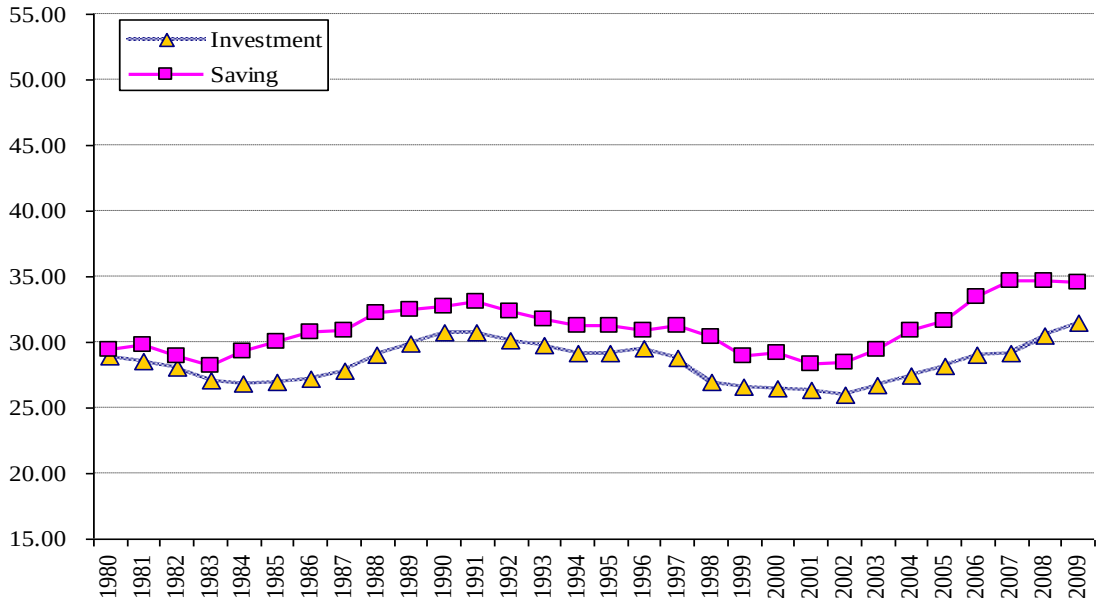
Source and note: See Figure 3.

Figure 6. Saving and Investment Shares of GDP: Australia and New Zealand (percent)



Source and note: See Figure 3.

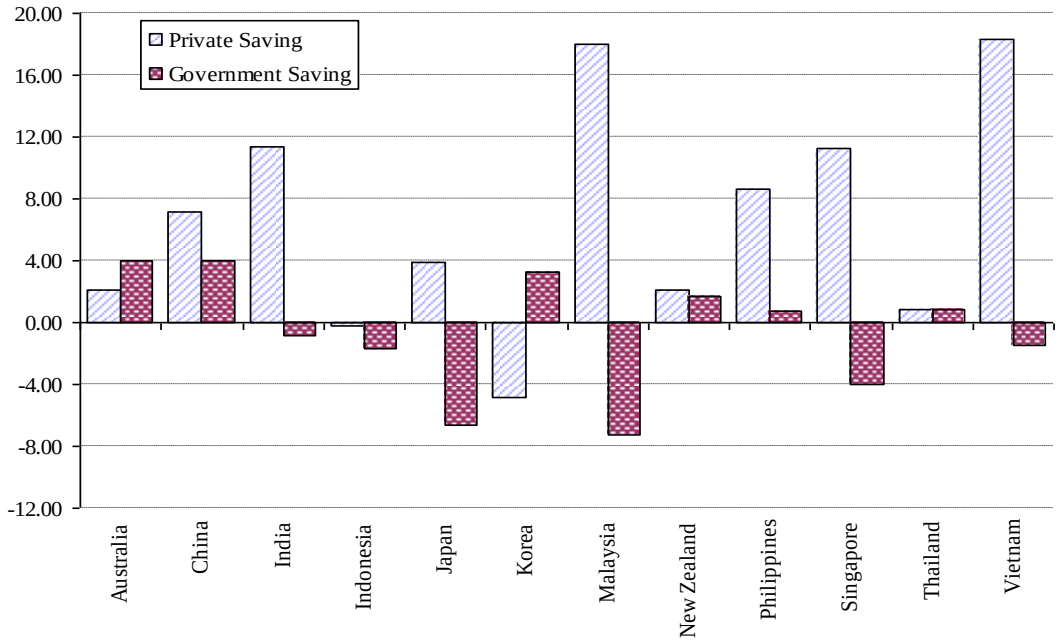
Figure 7. Saving and Investment Shares of GDP: All 12 countries (percent)



Source and note: See Figure 3.

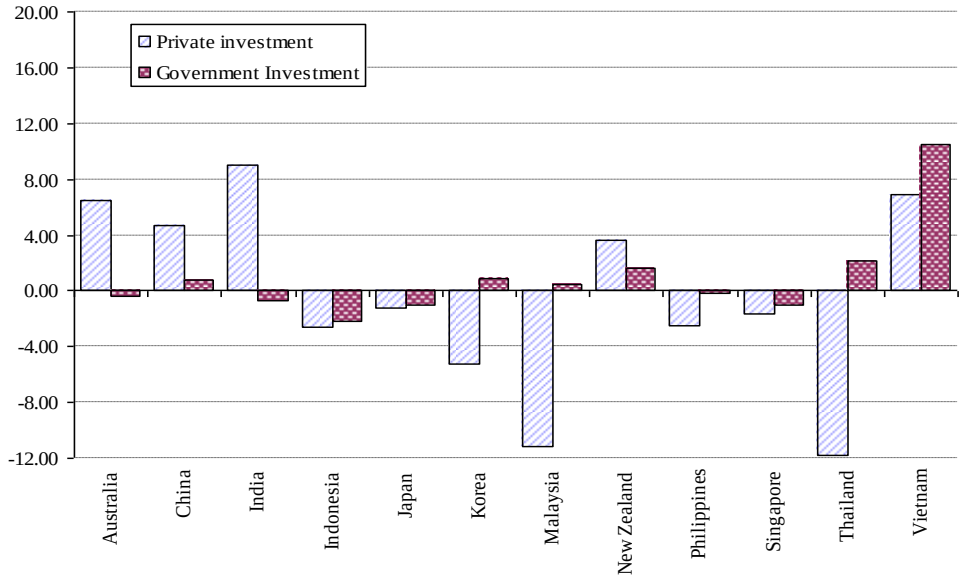
Figures 8 and 9 compare the average GDP shares of saving and investment, respectively, between two periods: the pre-AFC period of 1990–96 and the post-crisis decade of 1999–2009. This comparison is made for all 12 countries. China's increase in saving was huge in total but as a share of GDP it was by no means the largest. India, Malaysia, the Philippines, Singapore and Vietnam all increased their savings shares by larger proportions. Figure 9 shows that the increase in China's investment share, post-crisis, was smaller than India's. The figure also shows the dramatic difference between the Group I and Group II countries with respect to investment. Investment shares contracted in all of the countries affected by the AFC except Vietnam and increased in all other countries except Japan. The contractions in Malaysia and Thailand were especially large. Indonesia is an interesting outlier. Although Indonesia was severely affected by the AFC, its private investment share contracted post-crisis much more moderately than, for example, Malaysia, Thailand and Korea.

Figure 8. Change in Saving Share of GDP, 1990–96 to 1999–09 (percent)



Source: World Bank, IMF, CEIC.
Note: Pre-crisis average calculated over 1990–96, and post-crisis average calculated over 1999–2009; change in saving share of GDP = post-crisis share – pre-crisis share.

Figure 9. Change in Investment Share of GDP, 1990–96 to 1999–09 (percent)

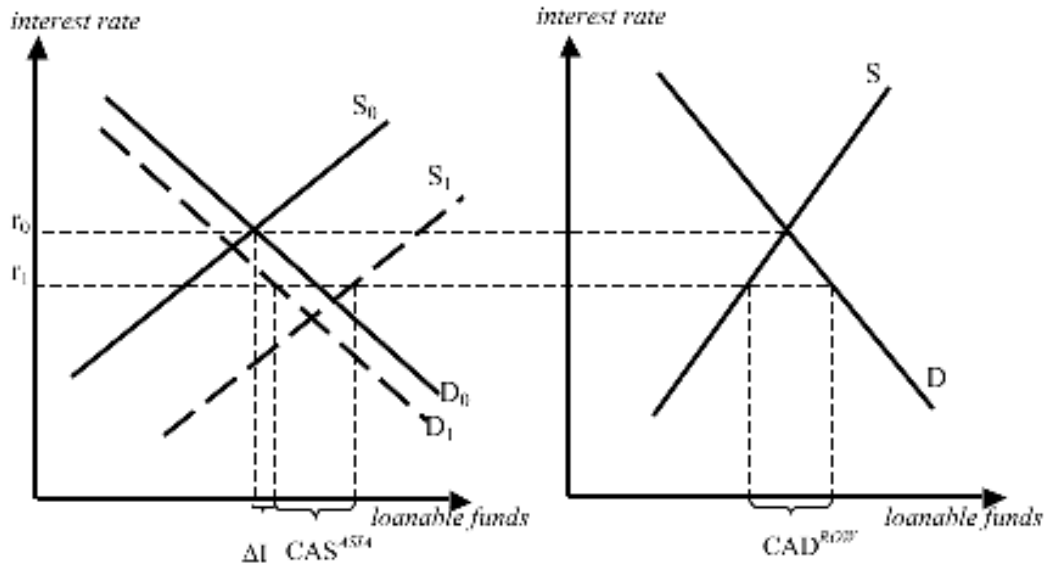


Source: World Bank, IMF, CEIC.
Note: Pre-crisis average calculated over 1990–96, and post-crisis average calculated over 1999–2009; change in saving share of GDP = post-crisis share – pre-crisis share.

4. A Simple Loanable Funds Model of Global Imbalances

Figure 10 presents a simple loanable funds model to describe these events. Investment is represented by the demand for loanable funds and saving is represented by their supply. Consider panels A and B first, representing "Asia" (panel A) and the "rest of the world" (panel B), respectively. These two panels represent the global market for loanable funds. They determine the equilibrium world interest rate at the level where Asia's current account surplus (or deficit) is equal to the rest of the world's deficit (or surplus). For convenience, it is assumed that both Asia and the rest of the world are in current account balance in the initial period (period 0), roughly representing the late 1990s. The world interest rate is r_0.

Figure 10. A Loanable Funds Model of Global Imbalances



Panel A: Asia Panel B: Rest of the World

The second period (period 1) represents roughly 2009. For simplicity, the supply and demand for loanable funds in the rest of the world are each assumed to remain stationary, as assumed in the well-known Bernanke "savings-glut" interpretation of global imbalances (Bernanke, 2005). The action takes place initially in Asia. There is a huge shift to the right in Asia's supply of loanable funds (saving), from S_0 to S_1, and a smaller shift to the left in the demand (investment), from I_0 to I_1. The world interest

rate declines from r_0 to r_1. In the rest of the world the fall in interest rates induces a movement along both the supply and the demand schedules for loanable funds, inducing a contraction of saving and an expansion of investment, producing a large current account deficit, CAD^{ROW}. In Asia there was both the shift in the supply and demand schedules described above and a movement along the new schedules as interest rates fell. The result was a huge increase in aggregate saving and a small increase in aggregate investment. Asia's current account moved to a large surplus—the difference between Asia's saving and investment at the lower interest rate, where $CAS^{ASIA} = CAD^{ROW}$.

What caused the shift in Asia's saving and investment schedules? In the Group I countries, confidence was negatively affected by the devastation of the AFC of 1997–98. The demand for loanable funds (investment) shifted to the left as firms became much more pessimistic about future prospects. Growth rates declined significantly compared with the pre-crisis decade of 1986–96. In the Group II (not crisis-affected) countries there was an export-led economic boom. Savings increased as a share of GDP in response to the income growth.

Figure 10 can be used to make one further point. If the "rest of the world"—principally the United States—wishes to reduce its current account deficit, is it better to make the adjustment itself or to attempt to induce Asia to adjust? If the United States adjusts, either by shifting its demand for loanable funds to the left or by shifting its supply to the right, its excess demand for loanable funds contracts, the equilibrium level of its current account deficit declines and world interest rates fall. If Asia contracts its excess supply of loanable funds, the same combination of current account balances might result, but with an *increase* in world interest rates. Given the huge level of its stock of debt, the United States has a strong interest in low world interest rates. It should do the adjusting itself and should not be berating Asia to reduce its current account surpluses.

Asia's current account surpluses can be lowered either by reducing saving (by increasing consumption) or by increasing investment. In the Group I (crisis-affected) countries, both are possible strategies. Fiscal expansion can reduce public sector saving by increasing social expenditures on education, health and other public services. The

same can be done in the Group II countries—notably in China. But in the Group I countries, policies that raise investment will have the dual benefit of reducing current account surpluses and raising growth rates. We shall therefore focus on this option.

5. Determinants of Asian Investment

Is export-dependent Asia investing too little? One way of approaching this question is to compare actual investment shares in GDP with steady-state shares calculated from a neo-classical growth model (Islam, 1995). Abstracting from population growth for simplicity, the required steady-state level of investment i^* is given by:

$$i^* = k^*(g + d)/(1 + g), \tag{2}$$

where k^* denotes the steady-state capital–output ratio, d denotes the rate of depreciation and g denotes the potential rate of growth of output. For a given value of d, k^* is found as the mean value of the capital–output ratio over a long period (1950–2008). An International Monetary Fund study (IMF, 2005) derived the potential rate of output growth from medium-term projections from the IMF *World Economic Outlook*. It found that application of this simple neo-classical framework leads to three conclusions concerning the emerging countries of Asia other than China:

i. In the years preceding the 1997 AFC, actual investment shares exceeded steady-state shares, suggesting overinvestment.

ii. In the years immediately following the crisis, actual investment shares exceeded steady-state shares, as firms moved to eliminate excess capacity.

iii. Actual shares still remain below the steady-state shares required to sustain real GDP growth rates above 5 per cent (IMF, 2010). That is, emerging Asia (except China) is underinvesting. If growth rates of 5 per cent are to be maintained, actual investment shares need to increase (for example, by 5 per cent of GDP in Thailand and by 3 per cent in Malaysia and the Philippines).

This analysis suggests investment to output ratios for most Association of South-East Asian Nations (ASEAN) economies at between 93 and 97 per cent of their required levels. That is, for most ASEAN countries, achievement of the IMF growth projections requires investment as a share of GDP to increase by an average of about 5 percentage points.

An econometric study of the determinants of investment (IMF, 2009) suggests three conclusions. First, slowed GDP growth since the AFC reduced the rate of return to investment and this reduced investment spending relative to GDP by an average of 2.5 percentage points. Second, macroeconomic uncertainty caused firms to hold back on investment plans and this greater uncertainty since the AFC reduced the investment share of GDP by about 1 percentage point. Third, a deterioration in investors' perceptions of the investment climate—including application of the rule of law, creditor rights and transparency of government operations—has reduced the investment to GDP share by just less than 1 percentage point. Some progress has occurred in most of these areas since the AFC, but investors' perceptions have been slow to catch up.

6. Policy Conclusions

Increasing investment in Asian countries other than China should not be seen as an objective in itself. It is desirable in part as an instrument of growth rebalancing, but only if it is productive. The above discussion leads to four conclusions on means to increase levels of private and public investment.

1. *Increased public sector infrastructure investment*. A higher level of private investment requires infrastructure improvements. Greater use of public–private partnership models can assist in financing this investment.
2. *Further improvement in the investment climate*. This includes the governance issues mentioned above (more consistent application of the rule of law, creditor rights and transparency of government operations, including procurement) and also further reform to enhance the competitiveness of output and labor markets.
3. *Better access to finance*. This can include development of a domestic corporate bond market and reform of collateral laws to enable a wider rage of securitization beyond real estate and other fixed assets.
4. *Reduced credit risk by facilitating corporate restructuring*. Creating a market for distressed corporate debt by purchase of non-performing loans (NPLs) from banks and repackaging them for subsequent sale to the private sector.

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