



ADB Working Paper Series

**The Role of Macroeconomic Policy
in Rebalancing Growth**

Peter J. Morgan

No. 266
February 2011

Asian Development Bank Institute

Peter Morgan is a senior consultant for research at ADBI, Tokyo. This paper was presented at the ADBI-NEAR “Workshop on Asian Economy after the Global Financial Crisis” held on 20 August 2010 in Tokyo, Japan.

The views expressed in this paper are the views of the authors and do not necessarily reflect the views or policies of ADBI, the Asian Development Bank (ADB), its Board of Directors, or the governments they represent. ADBI does not guarantee the accuracy of the data included in this paper and accepts no responsibility for any consequences of their use. Terminology used may not necessarily be consistent with ADB official terms.

The Working Paper series is a continuation of the formerly named Discussion Paper series; the numbering of the papers continued without interruption or change. ADBI’s working papers reflect initial ideas on a topic and are posted online for discussion. ADBI encourages readers to post their comments on the main page for each working paper (given in the citation below). Some working papers may develop into other forms of publication.

Suggested citation:

Morgan, P. 2011. The Role of Macroeconomic Policy in Rebalancing Growth. ADBI Working Paper 266. Tokyo: Asian Development Bank Institute. Available: <http://www.adbi.org/working-paper/2011/02/17/4381.macroeconomic.policy.rebalancing.growth/>

Please contact the author(s) for information about this paper.

Email: pmorgan@adbi.org

Asian Development Bank Institute
Kasumigaseki Building 8F
3-2-5 Kasumigaseki, Chiyoda-ku
Tokyo 100-6008, Japan

Tel: +81-3-3593-5500
Fax: +81-3-3593-5571
URL: www.adbi.org
E-mail: info@adbi.org

© 2011 Asian Development Bank Institute

Abstract

The aftermath of the global financial crisis of 2007–2009 has called the export-led growth model of Asian economies into question. This paper describes the contribution that macroeconomic policy can make to promote a rebalancing of growth away from dependence on exports to developed economies to a more sustainable pattern of growth centered on domestic and regional demand. This represents a significant departure from the traditional uses of macroeconomic policy to stabilize the economic cycle and achieve stable and low inflation. The evidence suggests that macroeconomic policy can successfully contribute to growth rebalancing. Policy measures not only can affect aggregate demand directly, but can also affect it indirectly via their “microeconomic” impacts on private sector behavior. Although in the long-term fiscal policy should be balanced to maintain government debt stability and avoid crowding out of private investment, there may be substantial scope to expand monetary and fiscal policy in the medium-term to offset the deflationary effects of an appreciating currency during periods of current account reversal. Previous experience suggests that most of the needed stimulus can be provided by monetary policy, with only a supplementary role to be played by fiscal policy. Moreover, Asian economies with large current account surpluses tend to have sufficient fiscal space.

The evidence suggests that excessive savings rather than insufficient investment is the main factor behind high current account surpluses in Asian economies. This implies that measures to encourage consumption, either by raising the level of household disposable income or reducing the savings rate are likely to have the highest payoff in terms of reducing imbalances. Increased spending on social protection, including health insurance, unemployment insurance and pensions, as well as investment in education, are seen as key ways to reduce household demand for precautionary savings. Governments can raise investment spending directly through increased government investment, especially infrastructure investment. There also may be large payoffs to making investments to improve the investment climate, thereby encouraging private investment. Cuts in corporate tax rates and government support for deepening of financial markets can also encourage investment, including improving the infrastructure for corporate bond markets, developing credit databases and other infrastructure for SMEs, and developing the infrastructure for microfinance. Cuts in export subsidies and foreign exchange intervention can cut net exports directly. Improvement of frameworks for macroeconomic and financial stability can also support domestic demand by reducing uncertainty and the need for precautionary savings. This includes giving more explicit weight to financial stability as an objective of monetary policy, developing a macroprudential framework for financial surveillance and regulation, and refining policy tools for management of capital flows.

JEL Classification: E21, E52, E58, E62, E64, F31, F32, H50, H55, I38

Contents

1.	Introduction.....	1
2.	Literature Review.....	2
3.	Current state of imbalances in Asia	4
4.	Feasibility of using macroeconomic policy to achieve rebalancing	9
5.	Policies to stimulate domestic demand and net exports.....	13
6.	Ways to increase macroeconomic and financial stability.....	18
7.	Conclusions	19
	References	22

1. INTRODUCTION

Although Asian economies have enjoyed high growth, rising per capita incomes and diminishing poverty during the period of export-led growth, the aftermath of the global financial crisis of 2007–2009 has called this growth model into question. First, it seems likely that Asia's traditional major export markets—the United States (US) and Europe—will experience a prolonged period of sluggish growth as they work off the excesses of the crisis. Second, policies that supported export-led growth, especially foreign exchange rate intervention to keep exchange rates under-valued, helped to widen global current account imbalances that likely contributed to global economic and financial instability that culminated in the crisis. Third, the export-led growth phase had undesirable side-effects, including, in some cases, widening income gaps and, in almost all cases, substantial environmental degradation, including rapid growth of greenhouse gas emissions. Therefore, Asian economies need to consider ways in which their growth pattern can be re-oriented away from export-led growth to one that is more balanced and sustainable. This means growth that is consistent with smaller global imbalances, more reliant on domestic and regional demand, and more inclusive and environmentally sustainable.

This paper contributes to that debate by analyzing ways that macroeconomic policy can contribute to such growth rebalancing. This is fundamentally a departure from the traditional tasks of macroeconomic policy, i.e., stabilization of the economic cycle and, in the longer-term, achievement of price stability. Moreover, the time frame of such policies is considerably longer than is usual in the case of macroeconomic stabilization policy. Such a long period means that there is less (although, we will argue, still some) scope for a sustained expansion of fiscal policy, since it eventually would hit constraints of fiscal sustainability. In other words, fiscal policy should still aim to be neutral over the cycle. Therefore, rather than simply contributing directly to aggregate demand, such policies should aim to influence the overall investment-savings balance in other ways as well. We argue that, in the current context, macroeconomic measures that contribute to such rebalancing can also contribute importantly to achieving the traditional stabilization tasks.

This is by no means easy, since the current account balance reflects the gap between savings and investment, which is inherently difficult to target. This is because the determinants of investment and savings are many, complex, and subject to all manner of feedback loops. This point has been forcefully argued by McKinnon (2010) among others. The case of Japan is an object lesson. Although the US dollar fell by 62% against the Japanese yen between its peak of ¥260 in February 1985 to just ¥99 in mid-1994, adjustment of the current account was temporary. In fact, Japan's current account surplus in the decade following the Plaza Accord of 1985 averaged 2.7% of gross domestic product (GDP), versus only 1.4% in the period 1980–1985. Thus, although savings fell, investment eventually fell even more, partly reflecting the “hollowing-out” of the economy as manufacturing capacity shifted offshore in search of lower production costs.

Moreover, the notion of growth rebalancing should not be limited to ways to reduce the current account balance. Asian economies need to achieve higher rates of growth from domestic and regional demand to make up for the looming shortfall of export growth to the developed economies. Therefore, policies are needed to promote the growth of domestic and regional demand, and to facilitate the supply-side adjustments that need to accompany such rebalancing. Policy measures also need to aim to promote growth that is more sustainable from the standpoint of inclusiveness and environmental sustainability. In view of these considerations, this paper examines not only broad policies for managing aggregate demand—taxes, spending, interest rates, and currency policy—but also policies with more “microeconomic” effects, such as spending on social safety nets, changes in income distribution, changes in tax rates, deepening of financial markets, and increasing macroeconomic and financial stability.

The paper is organized as follows. Section 2 reviews the relevant literature on recommendations for achieving rebalancing via macroeconomic policy. Section 3 reviews the current state of imbalances within the region. Section 4 examines the feasibility of using macroeconomic policy to achieve rebalancing. Section 5 describes specific measures to stimulate domestic demand, including consumption and investment. This includes a discussion of ways to promote growth that is more inclusive and environmentally sustainable. Section 6 examines the contribution of improving the policy frameworks for macroeconomic and financial stability, including management of capital flows. Section 7 concludes.

2. LITERATURE REVIEW

There is a vast literature on the traditional macroeconomic tasks of stabilization of the economic cycle and achievement of price stability, but the literature on macroeconomic policies to encourage growth rebalancing is still quite limited. The literature on rebalancing typically starts from the recognition of the identity that the current account surplus equals savings minus investment, so that a reduction of the current account surplus needs to be accompanied *ex post* by lower savings and/or higher investment. Therefore, one can consider policies either that act on net exports directly, or that act on savings or investment. Since household savings are an important component of overall national savings, policies that encourage consumption (for a given level of disposable income) can also contribute to rebalancing growth.

Perhaps the earliest discussion of these issues was in the Mayekawa report, issued to address the rise of Japan's current account imbalance with the US in the mid-1980s (Mayekawa 1986). The report's conclusions are uncannily familiar. It identified six major areas for policy changes to reduce current account balances: expansion of domestic demand, including both consumption and infrastructure investment; transformation of the industrial structure, including promotion of foreign direct investment; promotion of manufactured imports and further improvements in market access; international financial liberalization and stabilization of international currency values; increased contribution to the global economy and international cooperation; and fiscal and monetary policy support. The report was rather vague regarding the last, however. It proposed to continue fiscal consolidation, while supporting a reallocation of spending to promote private sector vitality, support deregulation and promote medium-term balanced growth. Regarding taxation, the most important proposal was to end preferential tax treatment for savings accounts. Regarding monetary policy, it called for currency stability, but with "flexible" operation to support domestic demand.

Eichengreen (2009) identifies four major implications of the global financial crisis for macroeconomic policy management in Asia: the need for policy space to be kept in reserve for future shocks; the desirability of increased exchange rate flexibility, both to absorb external shocks and contribute to adjustment of imbalances; the need to incorporate financial stability concerns more explicitly into monetary policy frameworks; and the desirability of having a regional pooling arrangement for foreign exchange reserves to reduce the need for individual countries to insure themselves against capital outflows by building up foreign exchange reserves.

Regarding fiscal policy, the prescription for deficit countries such as the US is straightforward—reducing fiscal deficits can contribute to reducing the current account deficit as well, although the scope for and will to accomplish such reductions will be limited as long as the economy is below full employment (Bosworth and Collins 2010). Fiscal consolidation should also improve prospects for debt sustainability by achieving stability of the ratio of government debt to GDP, an additional incentive for deficit countries to adopt more contractionary fiscal policy. However, surplus countries have no similar incentive to adopt

more expansionary fiscal policies, as has been demonstrated by Germany's reluctance to do so during the current crisis. Fiscal expansion is less attractive, because of its tendency to worsen both the current account balance and debt sustainability conditions.

Prasad (2009) advocates the following to promote economic rebalancing: increasing spending on the social safety net and other government insurance mechanisms to help reduce precautionary motives for saving; developing financial markets and increasing their efficiency to aid smoothing of consumption and investment by companies; promoting financial inclusion; and increasing exchange rate flexibility to promote consumption via terms-of-trade effects and creation of greater monetary policy space to promote macroeconomic stability.

Asian Development Bank (2009) argues that policies aiming to reduce the imbalance between savings and investment should focus on increasing consumption rather than promoting investment, since the evidence for under-investment in Asia is slight. (See Section 3 for a more detailed discussion of this.) It argues in addition that fiscal policy can make a substantial contribution toward making domestic demand more robust in both the short run and long run. Consumption can be promoted by both raising the share of household income in total income, and by reducing the incentive for precautionary saving. Regarding the former, ADB (2009) advocates that governments in the region encourage increased dividend payments to stockholders, and implement income transfer schemes to support low-income groups. For the latter, ADB (2009) also advocates increased spending on social protection and social safety nets, including greater state provision of health care, education, and pension benefits.

Lee (2010) argues that countries such as the People's Republic of China (hereafter PRC) should encourage firms to increase dividends to strengthen the link between corporate profits, household income and consumption. He also advocates increased government expenditure on health, social safety nets, education and housing to reduce households' precautionary motive for saving. He advocates measures to increase the investment climate in countries where this is lagging. Export subsidies and other price distortions that favor exporters should also be eliminated. He also calls for further cooperation at the regional level, such as: strengthening the Chiang Mai Initiative Multilateralisation (CMIM) agreement, including the setting up of an Independent Surveillance Unit (now known as the ASEAN+3 Macroeconomic Research Office (AMRO)); establishing an Asian Financial Stability Dialogue to foster economic and financial coordination; and promoting measures to support increased regional infrastructure investment.

Bery (2010) highlights the need for expenditure switching in the case of India to encourage the supply of key non-tradables, including infrastructure provision in both the public and private sectors, as well as measures to enhance human capital, such as better public education and public health. Even though India does not need rebalancing at the macroeconomic level in terms of the current account balance, these measures can still help achieve higher and more sustainable economic growth.

In its review of the experience of countries that transitioned out of large current account surpluses, IMF (2010) finds that monetary and fiscal policy stimulus measures played an important role in offsetting the impacts of exchange rate appreciation. In fact, in a number of cases, policy stimulus overshoot what was needed, as the deflationary effects of currency appreciation were over-estimated, and stimulus had to be withdrawn due to the development of inflationary pressures and asset bubbles. On the plus side, the IMF study found that surplus countries typically had ample policy space at the beginning of such episodes that enabled them to implement stimulus measures. This study is cited in more detail in section 4.

Regarding household savings, Jha, Prasad and Terada-Hagiwara (2009) conclude that the two main areas for policy to have an impact on reducing precautionary savings are: expanding the social safety net, especially health insurance coverage; and financial

development in order to enable households to insure against idiosyncratic risks to household income and to smooth out lifetime consumption by increasing the capacity to purchase durable goods and housing.

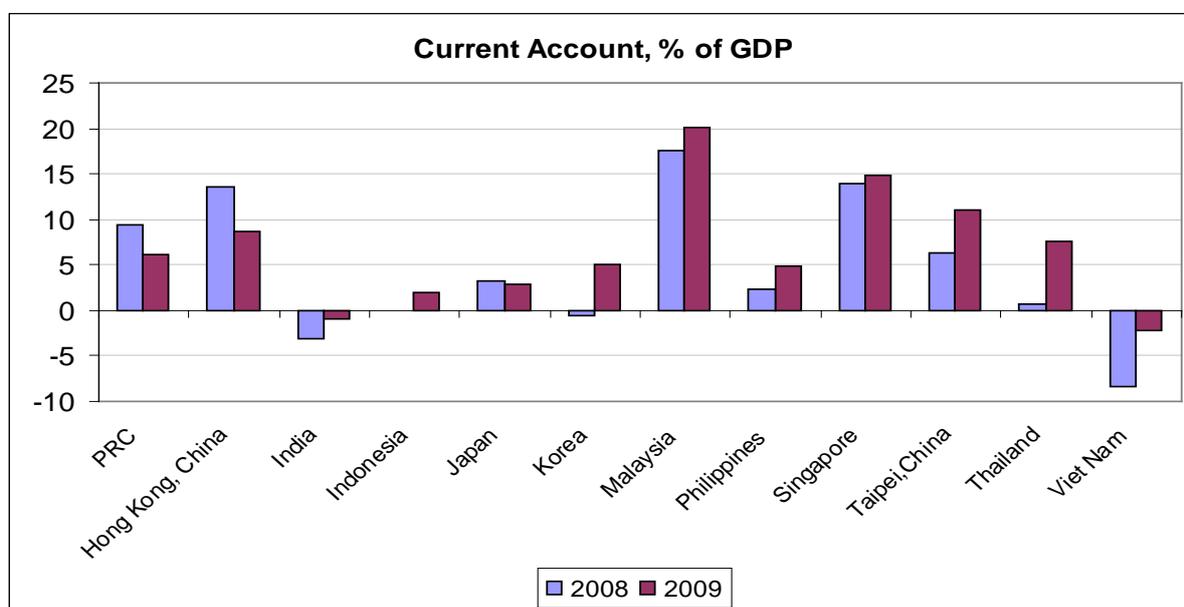
Takagi (2009) argues against using fiscal policy permanently as a way to rebalance growth, from the standpoint of concerns about both debt sustainability and the tendency of higher fiscal spending to raise interest rates and thereby crowd out productive private investment. Of course, presumably the latter would be less of a concern if the economy was operating at less than full capacity, which would likely be the case if currency appreciation exerted a deflationary impact on the economy.

To summarize, many authors support expansion of the social safety net, expanded access to financial services and income transfers as ways to reduce demand for precautionary savings and raise household disposable income. Regarding net exports, many authors conclude that greater exchange rate flexibility can allow needed adjustments, while establishment of a regional or global financial safety net can reduce the need for precautionary government saving via increase of foreign exchange reserves that tend to depress national currencies and widen global imbalances. Finally, measures to enhance macroeconomic and financial stability can also raise governments' tolerance for exchange rate flexibility.

3. CURRENT STATE OF IMBALANCES IN ASIA

A discussion of macroeconomic policy measures to reduce current account imbalances needs to focus on the areas where those imbalances occur. Figure 1 shows the level of current account balances of major Asian economies in 2008 and 2009 as a percentage of GDP. Of these economies, the PRC; Hong Kong, China; Malaysia; Singapore; and Taipei,China had current account balances of 5% of GDP or more in both 2008 and 2009. Among these, a recent ADB report identifies only Hong Kong, China; Singapore; and Taipei,China as having large current account surpluses as an “intrinsic structural characteristic” (ADB 2009: 59). However, the surpluses of the PRC and Malaysia have been sufficiently large and stable in recent years (averages in 2005–2009 of 6.6% and 16.9% of GDP, respectively) that they should be included in this group as well.

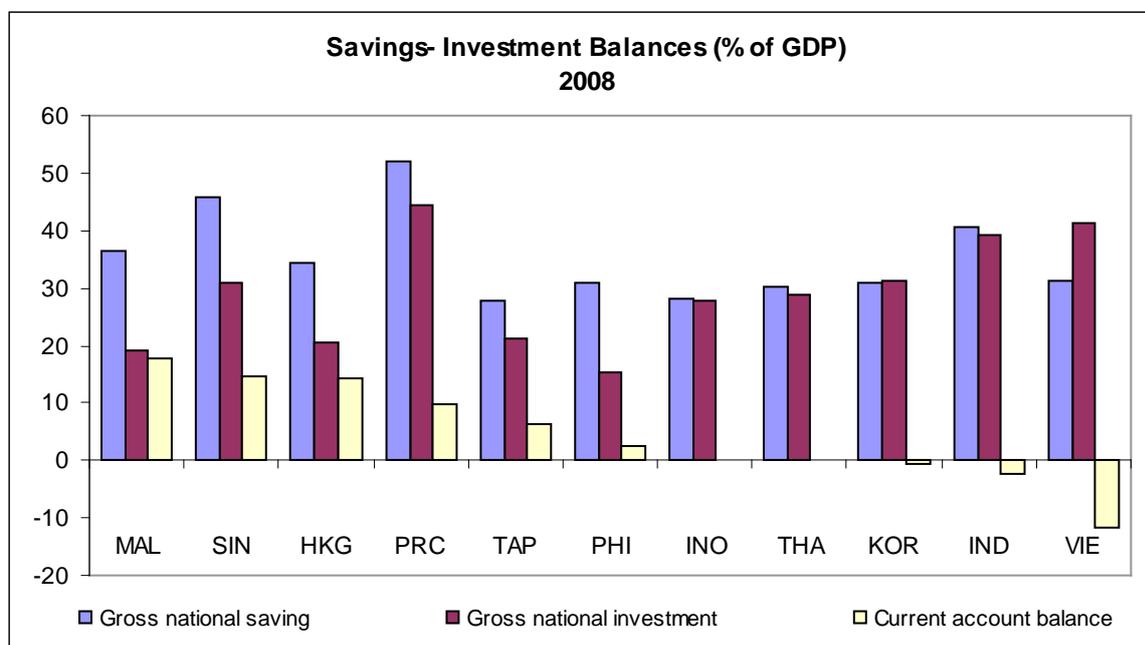
Figure 1: Current Account Balances



Source: CEIC Data (ceicdata.com) (accessed 15 July 2010).

The next step is to identify the relative contribution of savings and investment to these large imbalances. Figure 2 shows the levels of savings and investment for major Asian economies in 2008, arranged from left to right in order of the size of the ratio of the current account surplus to GDP. Malaysia, Singapore, the PRC, and India stand out as having exceptionally high savings levels. Investment rates are particularly high in the PRC, India, and Viet Nam.

Figure 2: Savings and investment levels

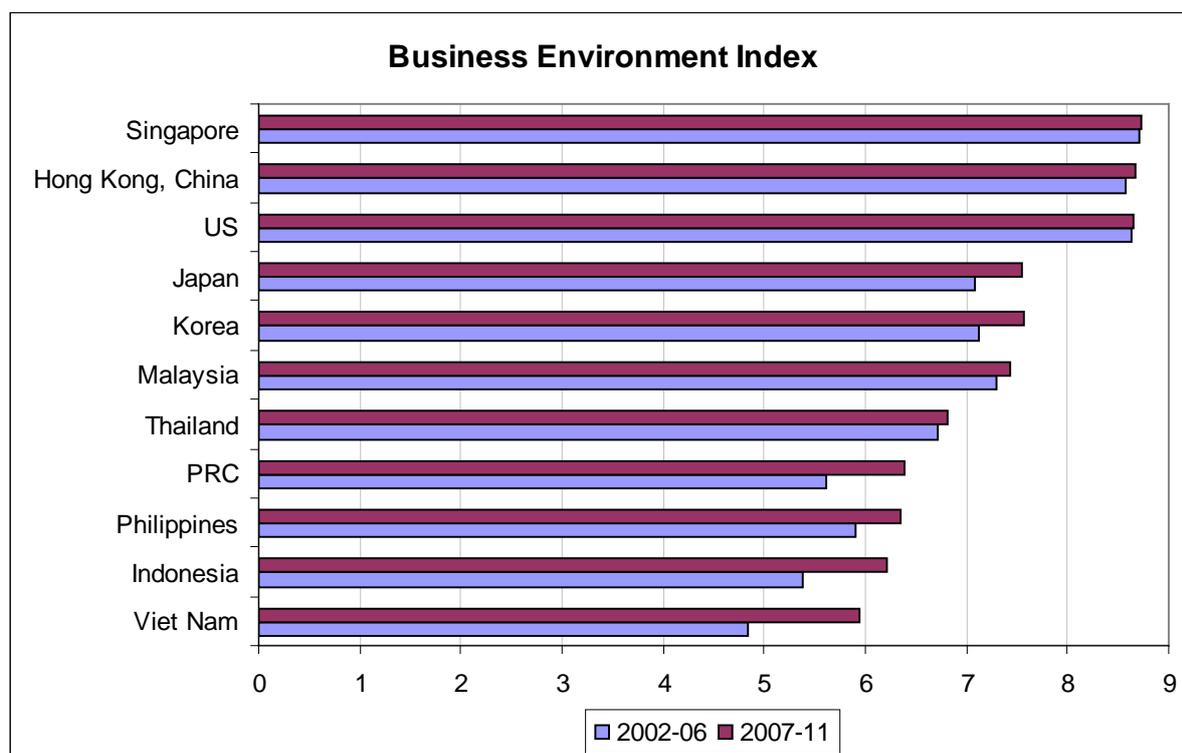


Source: ADB Statistical Database System (<https://sdb.sdb.org/sdbs/index.jsp>) (accessed 15 July 2010).

However, fundamental factors such as demographics, income levels, and economic growth rates can significantly influence the levels of saving and investment. Therefore, to determine whether or not savings rates are “high” or “excessive,” or whether investment rates are “low,” it is necessary to adjust for these fundamental factors to put them on a comparable basis. Perhaps the most comprehensive analysis of the factors driving the current state of imbalances in Asia can be found in ADB (2009). The study attempts to identify which Asian economies have either excessive savings, insufficient investment or both. The methodology is to regress investment and savings rates for a large sample of countries against standard explanatory variables such as income levels, demographic factors, and measures of financial development, and then to identify which countries are outliers relative to the predicted values generated from such regressions.

The study finds that investment rates are actually excessively high in the PRC and Singapore, but that none in Asia are excessively low (ADB 2009: 76). Instead, the study finds that the economies most affected by the Asian crisis of 1997–1998—Indonesia, the Republic of Korea (hereafter Korea), Malaysia, Philippines, and Thailand—showed more evidence of over-investment during the pre-crisis periods. If anything, investment in these countries simply appears to have returned to more normal levels rather than being too low.

Nonetheless, there is evidence that some Asian countries’ investment levels are inadequate. For example, a recent ADB study (ADB 2008) finds that the investment climates of the PRC, Indonesia, Philippines, Thailand, and Viet Nam still lag well behind those of the newly industrializing economies (NIEs) and advanced countries (see Figure 3). This suggests that there is probably scope to expand investment in these countries by implementing reforms to improve the investment climate in those countries.

Figure 3: Business Climate Indices in Asian and Benchmark Economies

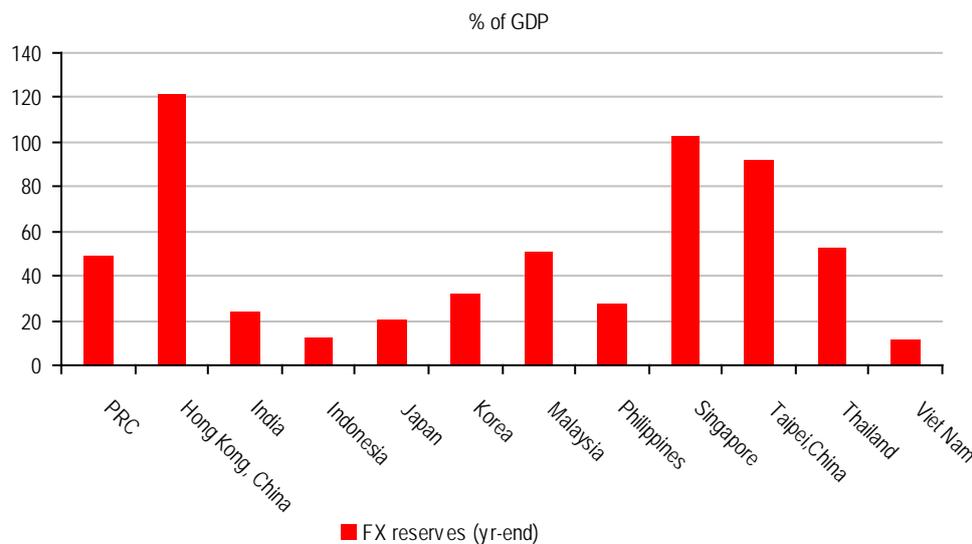
Source: Economist Intelligence Unit (2007).

Regarding savings rates, the study finds relatively strong evidence that savings rates are excessively high in the PRC, Singapore, and Thailand (ADB 2009). It also finds some evidence of over-saving in the countries affected by the Asian crisis—Indonesia, Korea, and the Philippines. The report acknowledges that, in the latter countries, this may partly reflect a shock effect from the Asian crisis, which could be expected to wear off over time. Overall, the report concludes that high levels of savings, not insufficient investment, are the main factor contributing to high current account surpluses in some Asian countries. This suggests that policies aimed at supporting consumption have the greatest potential to lower imbalances, as long as they do not come at the expense of investment (ADB 2009). The only exceptions to the latter caveat are the PRC and Singapore, where, as mentioned above, the study finds evidence of excessive investment as well. Interestingly, although Hong Kong, China and Taipei, China have very high current account surpluses (averages of 11.6% and 7.5% of GDP, respectively, in 2005–2009), they do not show up in the study as having either excessively high savings or insufficient investment.

There is also evidence of a connection between high current account surpluses and large increases in the level of foreign exchange reserves that have been accumulated. Figure 4 shows the ratio of foreign exchange reserves to GDP for major Asian economies. Due to its currency peg system, Hong Kong, China has the highest relative level of foreign exchange reserves, followed closely by Singapore and Taipei, China. The next tier of countries—PRC, Malaysia and Thailand—have ratios of about 50% of GDP. This suggests that large-scale foreign exchange rate intervention helped to depress foreign exchange rates, thereby contributing to a high level of net exports. Regardless of whether such foreign exchange

accumulation is practiced for reasons of self-insurance or mercantilism¹, it still tends to lead to the same result, i.e., under-valued currencies and large global imbalances.

Figure 4: Asian Foreign Exchange Reserve Levels, End-2009



Source: CEIC Data (ceicdata.com) (accessed 15 July 2009).

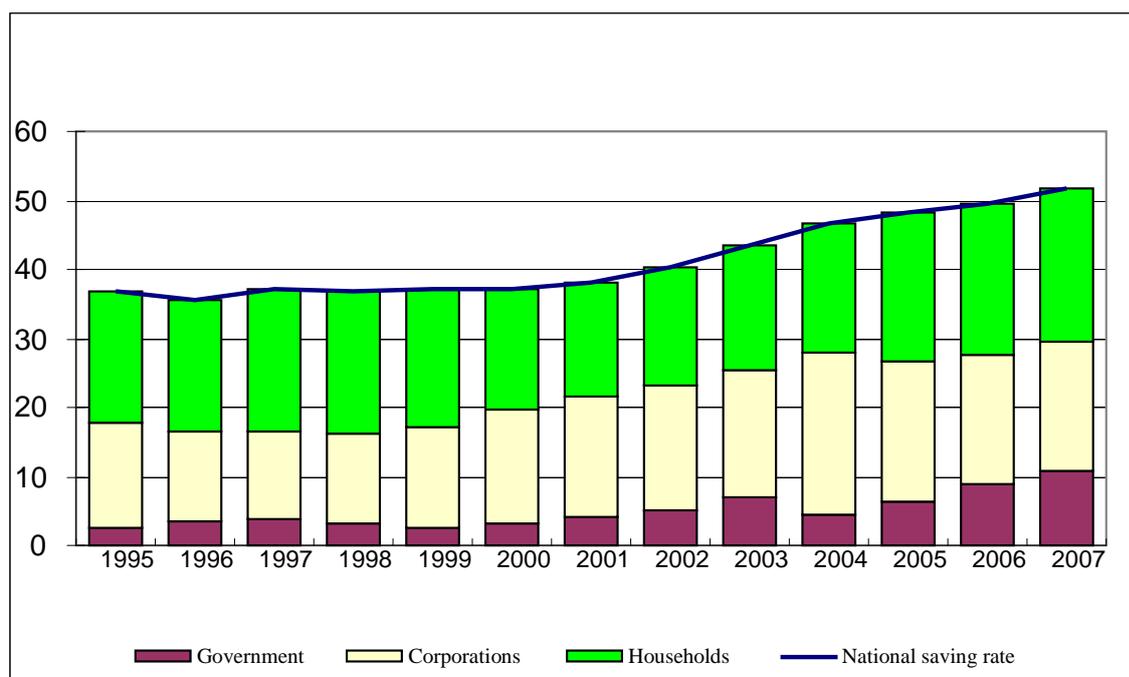
The next step is to drill down to the next level to determine which sectors—household, corporate or government—contribute most to excessive savings in particular countries where excessive saving has been identified. Some of the most detailed work in this regard has been done on the PRC.

PRC

The PRC’s current account surplus is not the largest in Asia as a percentage of GDP, but is the largest in absolute size, and hence the largest contributor to global imbalances. Figure 5 shows the composition of savings in the PRC. The national savings rate rose steadily by 14.5 percentage points between 2000 and 2007, hitting over 50% of GDP by the end of the period. The largest increase came from the government sector (7.6 percentage points), followed by the household sector (4.7 percentage points), and the corporate sector (2.3 percentage points).

¹ Aizenman and Lee (2005) find evidence to support self-insurance as the main explanation of reserve accumulation. However, Levy-Yeyati and Sturzenegger (2009) find that “fear of appreciation” is correlated with higher economic growth rates.

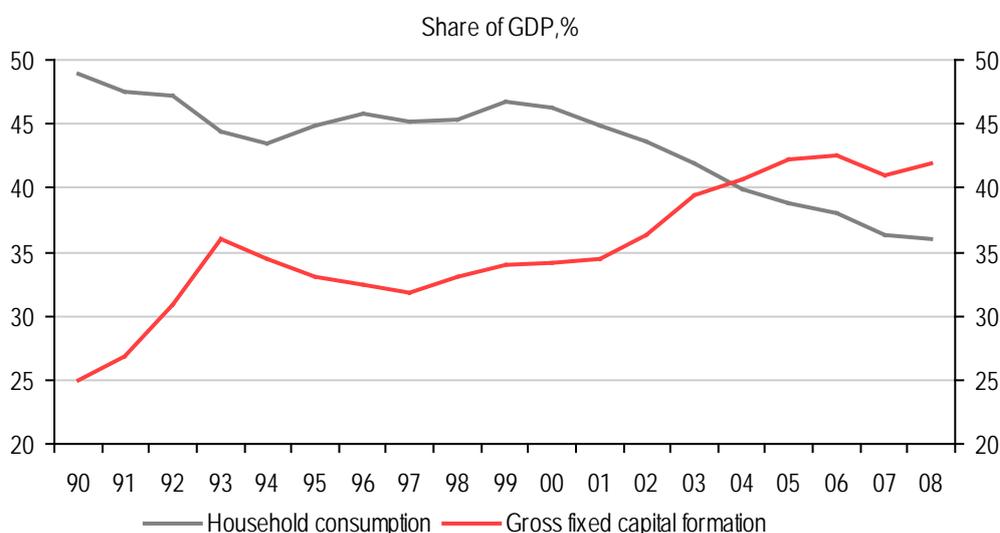
Figure 5: Composition of Savings in PRC



Source: CEIC Data (ceicdata.com) (accessed 6 February 2009).

The most striking fact about the PRC is the low share of disposable household income in total disposable income, which is estimated to have fallen from 68.4% in 1998 to only 57.6% in 2008 (Ma and Yi 2010). Since the household savings rate rose during this period, Figure 6 shows that the share of personal consumption spending in GDP fell even further, to only 36.1% in 2008. This makes it a major outlier among Asian (and all) economies, and is surely one of the key factors contributing to the high overall savings rate of the PRC. Moreover, a number of studies find that the household savings rate in the PRC is significantly elevated due to precautionary savings for health, unemployment retirement and education, including Chamon and Prasad (2008), Horioka and Wan (2007) and Feng et al. (2009). This suggests that consumption spending in the PRC can potentially be boosted substantially by policies that either redistribute income toward the household sector or reduce the savings rate.

Figure 6: Share of Household Consumption and Fixed Investment in GDP in PRC



Source: CEIC Data (ceicdata.com) (accessed 27 July 2010).

The corporate savings rate in the PRC is also quite high, supported by high levels of profitability. Corporate profitability has been boosted by a number of factors, including declining employment in the state sector, price controls on land, energy and other inputs, low interest rates, rapid growth, and underfunded pension funds (ADB 2009, Huang and Tao 2010). Moreover, until recently, state-owned corporations were not required to pay dividends, which further boosted their cash flow. Recent reforms have introduced dividend payouts, but levels are still low. Even when dividends are paid out, Lin (2009) argues that they go disproportionately to the rich, who have higher saving propensities than the poor, adding instead to household savings. Prasad (2009) argues that the low level of interest rates paid by the corporate sector reflects financial “repression”, and is an aspect of financial under-development.

4. FEASIBILITY OF USING MACROECONOMIC POLICY TO ACHIEVE REBALANCING

Before discussing policy measures to influence net exports and domestic demand, it is first necessary to assess whether or not such interventions are feasible. The issue of feasibility has two aspects: (i) have such policies been successful in the past; and (ii) is there sufficient fiscal space in Asian economies to accomplish this? This section examines, from both aspects, the feasibility of using macroeconomic policy, including both fiscal and monetary policy, to support higher levels and growth of domestic demand to offset a decline in net exports arising from an appreciating foreign exchange rate.

Effectiveness of macroeconomic policies to help rebalance growth

As mentioned above, in the long term, fiscal policy normally should be balanced over the cycle because of concerns about both debt sustainability and crowding out of productive private investment. However, if a surplus country begins a rebalancing process that includes substantial appreciation of the currency, there may be an argument for medium-term easing of fiscal and monetary policy to cushion the deflationary effects of such appreciation stemming from a deterioration of net exports.

IMF (2010) presents the most comprehensive analysis of the effectiveness of such rebalancing policies. The study analyzed 28 episodes of current account surplus reversals that were accompanied by currency appreciation and macroeconomic stimulus, either monetary or fiscal. The findings were largely positive, including the following:

- The current account surplus narrowed on average by 5.1 percentage points of GDP relative to the pre-adjustment period;
- There was no significant difference in the average GDP growth rate after the reversal compared with the pre-adjustment period (although the variance was large);
- The contribution to growth of domestic demand rose and that of net exports fell;
- Savings fell and investment rose;
- Imports rose while exports were stable;
- There was no evidence of an increased tendency of the currency to overshoot; and
- The amount of needed macroeconomic policy stimulus was frequently over-estimated, leading to policy reversals IMF (2010).

In the five cases examined in detail (Germany in 1970, Japan in 1973 and 1988, Korea in 1989, and Taipei,China in 1988), Table 1 shows that monetary and fiscal policy was eased in only two episodes, those in Japan (IMF 2010). In the case of the fiscal tightening episodes in Japan, policy had to be tightened later as the economy overheated. The general conclusion is that the extent of deflationary impact from currency appreciation was frequently

over-estimated, and that the required easing of fiscal and monetary policy to offset such appreciation was therefore more moderate than first believed by the authorities. This suggests that, in future episodes of rebalancing, most of the load can be borne by monetary policy, and the need for sustained fiscal stimulus may be modest. This is important, because monetary policy is both easier to implement and easier to reverse than fiscal policy, and has fewer long-term consequences. Again, the key lesson appears to be the need to monitor such easing closely to make sure that it does not become excessive, leading to inflation and/or asset bubbles. These results support the case for macroeconomic policy making an effective contribution to growth rebalancing.

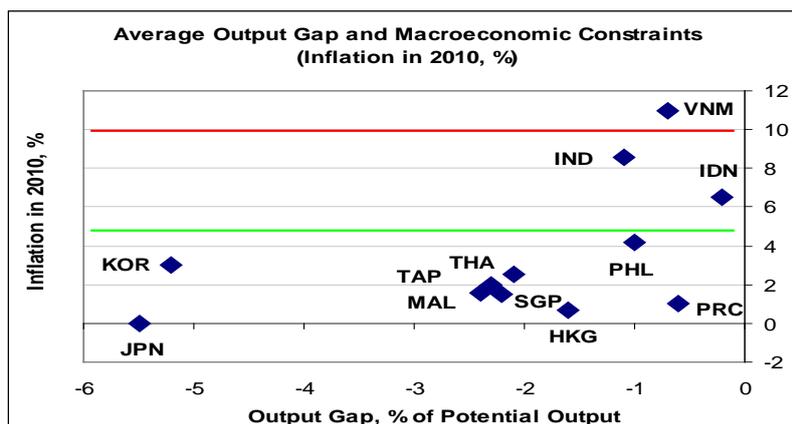
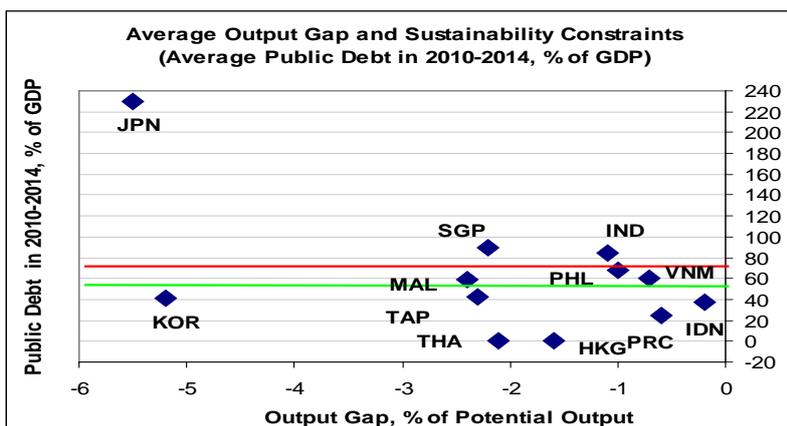
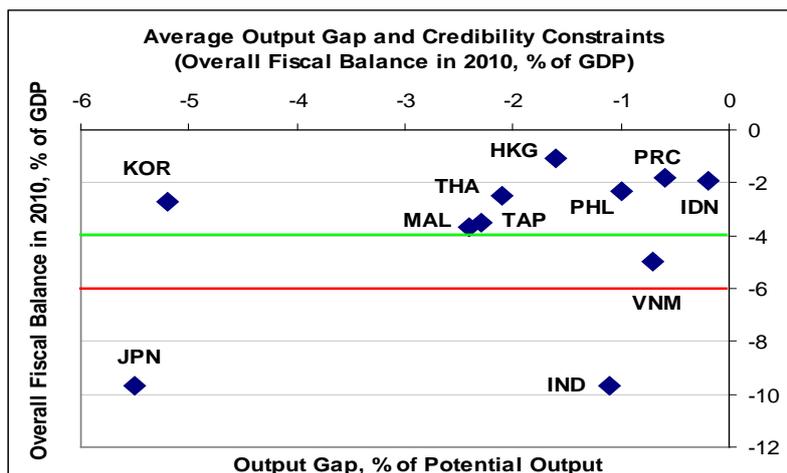
Table 1: Case Studies: Policies Used During Current Account Surplus Reversals

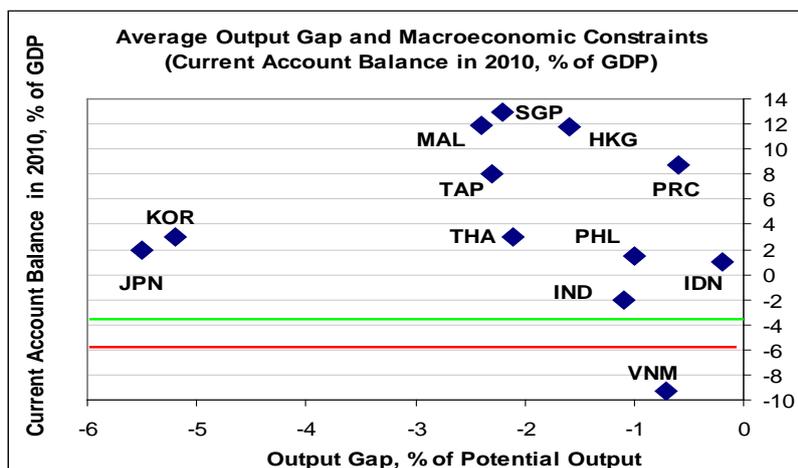
	Germany 1970	Japan 1973	Japan 1988	Korea 1989	Taipei,China 1988
Fiscal policy	Neutral in 1968-69; shift to tightening in 1971–72 as excess demand pressures continued	Expansionary in 1971–72 in expectation of weakening external demand	Stimulative after 1986 as economy began to slow following appreciation	Tight fiscal policy in 1987 to counter overheating	Fiscal consolidation
Monetary policy	Neutral in 1968-69; shift to tightening in 1971–72 as excess demand pressures continued	Expansionary in 1971–72 in expectation of weakening external demand; shift to tightening in 1973 as inflation accelerated; sterilization of capital inflows	Easing beginning in 1986 as economy began to slow following appreciation; sterilization of capital inflows	Tight monetary policy in 1987 to counter overheating; easing in 1989 after slowdown and stock market collapse; tightening after growth rebounded in 1990–91; sterilization of capital inflows	Neutral monetary policy, without regard for surpluses and/or appreciation

Source: IMF (2010).

Next, it is necessary to assess the amount of fiscal space that Asian economies can draw on to support macroeconomic adjustment policies. Horton (2010) argues that most Asian economies have a fair amount of fiscal space. For example, Figure 7 shows the comparison of the output gap with various measures of fiscal sustainability, including the fiscal deficit as a percentage of GDP, public debt as a percentage of GDP, and inflation and the current account as a percentage of GDP. The green line represents a moderate fiscal constraint and red line indicates a severe fiscal constraint. In terms of the fiscal deficit ratio, only Japan and India look constrained. The public debt to GDP ratios of the Philippines and Singapore are high as well, but, of course, Singapore also has high asset levels. Among Asian economies, only Viet Nam has a problematic level of the current account surplus. In any case, India, the Philippines, and Viet Nam do not have large current account surpluses needing adjustment.

Figure 7: Selected Fiscal Constraints in Asia





Notes: Green line represents moderate fiscal constraint and red line indicates severe fiscal constraint.

PRC=People's Republic of China; HKG=Hong Kong, China; IND=India; IDN=Indonesia; KOR=Republic of Korea; JPN=Japan; MAL=Malaysia; PHL=Philippines; SGP=Singapore; TAP=Taipei, China; THA=Thailand, VNM=Viet Nam.

Source: Horton (2010: 592).

Adams, Ferrarini and Park (2010) assess the amount of policy space currently available in developing Asia by analyzing the degree of fiscal sustainability in those economies using various methodologies. Their work points to a high level of fiscal space in most developing Asian economies going into the global financial crisis. In view of the large amount of fiscal stimulus implemented by many economies during the crisis, they suggest that, to stabilize debt-to-GDP ratios in the near term, Asian developing economies need to begin at least a modest program of fiscal retrenchment beginning in 2011. However, given the large degree of fiscal stimulus that was implemented in 2008 and 2009, this could still be consistent with a relatively expansionary stance going forward. Therefore, there should still be scope for fiscal policy to aid in structural adjustment.

In examining the impacts of fiscal policy on growth, one must also keep in mind the potential reactions of the private sector. In the extreme case, the theory of Ricardian equivalence predicts that increases in government debt will prompt an equal and opposite increase in private savings, as households anticipate the need to pay higher taxes later to pay off the debt. However, there is not much empirical evidence for Ricardian equivalence, so it remains mainly a textbook bugbear (see, e.g., Bernheim (1987)). Moreover, it runs up against the observation that government debt is rarely actually paid off. More usually, it is offset by higher levels of nominal GDP, which is the main factor that tends to stabilize the ratio of government debt to GDP once the fiscal emergency that prompted the debt increases is past.

The results of this section support the case for macroeconomic policy to be able to support growth rebalancing. First, previous episodes of current account surplus reversal accompanied by currency appreciation and offsetting macroeconomic policies generally produced major adjustments in the current account, domestic demand, savings and investment with little or no loss of growth. Moreover, the needed policy intervention frequently was less than originally estimated, suggesting that much of the burden can be borne by monetary policy alone. Finally, even if fiscal policy is needed, Asian economies with large current account surpluses appear to have adequate fiscal space to implement such interventions.

5. POLICIES TO STIMULATE DOMESTIC DEMAND AND NET EXPORTS

This section identifies in more detail macroeconomic policies that can stimulate domestic consumption and investment, or contribute to a reduction in net exports. The focus is mainly on fiscal policy measures. Monetary easing could be expected to stimulate both consumption and investment, but there is little more to say about the specific impacts of such easing.

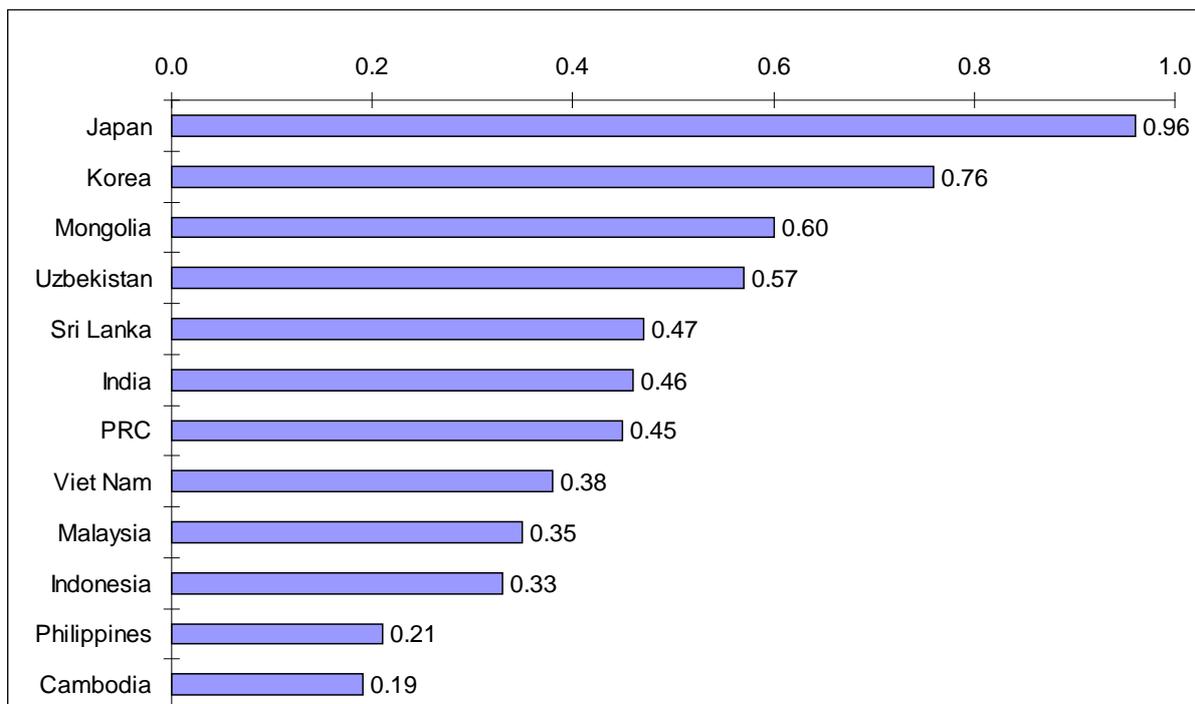
Consumption

Given that the evidence in Asia points more to excessive savings rather than insufficient investment, it seems likely that measures to encourage consumption have the most promise. As mentioned above, consumer spending can be raised either by measures to increase household disposable income, such as transfers or tax cuts, or by measures to encourage a reduction in the savings rate, chiefly by reducing the incentive for precautionary savings. Measures that reduce the uncertainty surrounding income or large unforeseen expenditures related to job security, illness or other shocks may be particularly effective in persuading consumers to reduce their precautionary savings.

Expansion of social safety net: Many have argued that expanding the social safety net, including health insurance, unemployment insurance and pension coverage, as well as increasing public support for education, looks like one of the most promising avenues to support household consumption. Many Asian economies lag in the provision of social insurance, which has been linked in numerous studies to elevated levels of precautionary savings in those economies. For example, Wang (2009) finds that urban households in the PRC without social security coverage have higher savings rates than those with such coverage, and that higher levels of social security coverage contribute significantly to higher consumption levels. A McKinsey Global Institute (MGI 2009) survey of consumer spending in the PRC supports this result. In the survey, the cost of education was reported as the biggest factor in consumers' decision to save. Other highly ranked considerations for saving were: the risk of illness; the expenses of caring for elderly parents; the need for investments, such as for home or business purchases; and the need for money during retirement and times of unexpected unemployment. Four of the major reasons cited in the MGI survey were related to social protection or to providing a safety net—illness, old-age, retirement, and unemployment risk.

Figure 8 shows the ranking of Asian economies in terms of the Asian Development Bank's social protection index. Aside from Japan, Korea, and some Central Asian economies, most Asian economies have relatively low levels of social protection. Strikingly, the level of social protection is only loosely associated with per capita income levels. The high levels of social protection in some countries with low incomes, including some of the Central Asian republics, Sri Lanka, and Viet Nam, shows that low income levels are not a barrier to such protection levels. This suggests that it should be feasible for higher-income countries, such as the PRC and those in ASEAN, to significantly raise levels of social protection.

Figure 8: Social Protection Index for Asian Economies

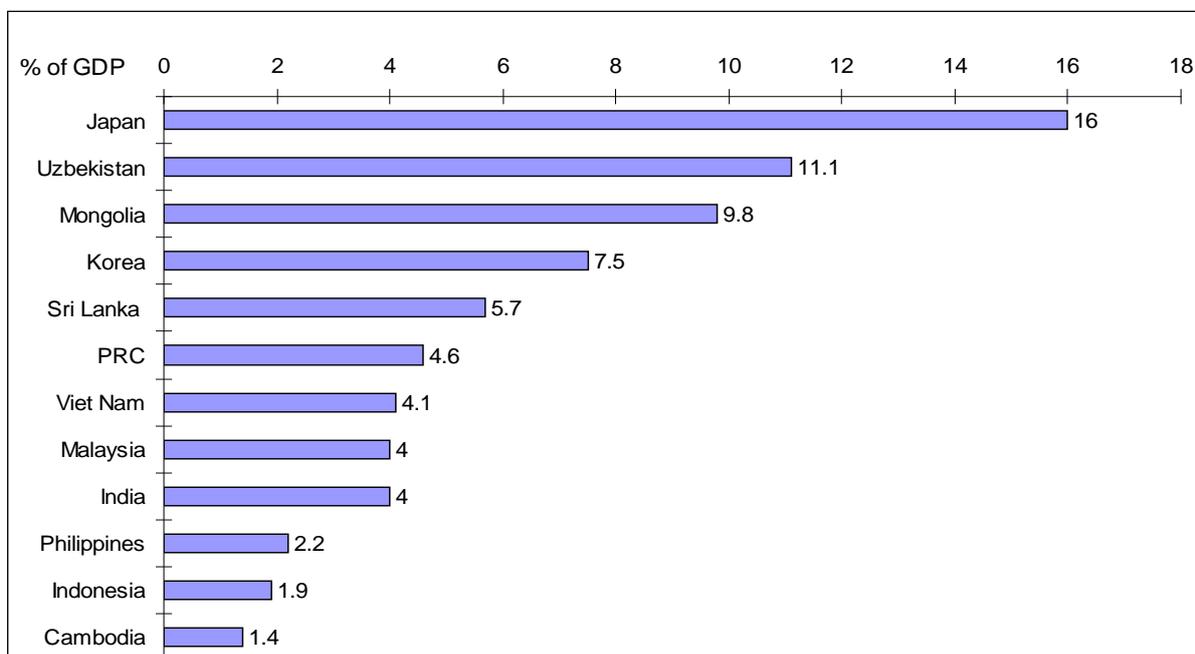


Note: PRC= People's Republic of China.

Source: Baulch, Weber and Wood (2008).

Figure 9 shows social protection expenditure as a percentage of GDP in Asia. These largely parallel the results for the social protection index in Figure 8 above. The share for the PRC is 4.6%, only a little over one-quarter of the level for Japan, while ratios are somewhat lower in Malaysia and Indonesia, and much lower in the Philippines. This re-emphasizes the point that there is plenty of room to raise social protection expenditures in a number of middle-income countries in Asia.

Figure 9: Share of Social Protection Expenditure in GDP



Source: Baulch, Weber and Wood (2008).

A recent study (Baldacci, et al 2010) estimates that social expenditure reforms in the PRC would have both an “income effect” and an “insurance effect” on current consumption. The income effect reflects the increase in lifetime resources arising from transfers of education and health, while the insurance effect reflects the decrease in precautionary savings. Table 2 shows the impacts of an increase of expenditure of one percent of GDP in each category on household consumption. Pension expenditures have the largest impacts and education the smallest. Also, pension impacts are relatively larger for urban than rural households. However, the actual impact on consumption is greater in rural regions, because of lower income levels and higher propensities to consume there (Baldacci, et al. 2010). Overall, these estimates imply that a 3% of GDP increase in social sector spending would increase consumption in the PRC by US\$115 billion, which is approximately 1% of the \$10 trillion consumption expenditures in the US.

Table 2: Income Impact of Expenditure Reforms on Household Consumption
(% of GDP)

Expenditure Reform	Pension	Health	Education
Simulation			
Total	1.42	0.77	0.51
Urban	0.92	0.46	0.24
Rural	0.50	0.32	0.27
Budget Shares			
Urban	0.75	0.69	0.58
Rural	0.25	0.31	0.42

Note: Simulations assume a 1% of GDP increase in each expenditure category annually.

Source: Baldacci, et al (2010).

In Taipei, China, introduction of the National Health Insurance scheme in 1995 is estimated to have reduced household saving rates significantly, with declines of 9–14% in the average level of saving (Chou et al. 2003, 2006). Athukorala and Tsai (2003) also concluded that increased availability of social security provisions and enhanced credit availability contributed to reducing household saving. Nonetheless, household savings are still relatively high, suggesting that other factors are at work.

Of course, these results make the optimistic assumption that the increase in such spending would be “free”, resulting from a reduction of the fiscal surplus rather than an increase in taxation. To the extent that taxes and/or social security contributions are raised to cover such spending, the net impact will be less. However, if such revenues can be raised primarily from the corporate sector, where savings rates are excessively high, this could minimize the drag effect on the economy from such increases.

Taxes and transfers: The other major way to encourage household consumption is by expanding household income. This either involves permanent cuts in income or other taxation, or else transfers from other sectors, most likely the corporate sector. In view of fiscal constraints, countries are likely to eschew permanent tax cuts, but transfers from the corporate sector are a possible avenue in cases where dividend payouts are low. This is certainly the case for the PRC, where dividend payouts of state-owned enterprises are quite low. Since the state is the major shareholder of these companies, it could raise revenues by increasing dividend payout ratios for those companies, and then distribute them to the household sector.

How should such transfer programs be implemented to maximize the impact on consumption? Targeting lower-income households is generally preferred, as they are most likely to be credit-constrained and also tend to have higher propensities to consume. Cash transfer programs (whether conditional or unconditional) are one of the most effective ways to support the purchasing power of vulnerable populations. The overall effectiveness of these schemes depends largely on their ability to reach poor people. One increasingly

popular social assistance tool is the conditional cash transfer (CCT), which is a grant provided only if the targeted recipient carries out a specified action, such as enrolling children into public schools, going to the doctor for check-ups, or getting vaccinations.

Another example of social assistance is the social pension, generally defined as state-provided, non-contributory regular cash transfers to older citizens, given at specific ages in different countries. Social pensions help to reduce the poverty of older people and their dependents, while increasing older people's status, material security, and access to services. Few countries in the region maintain social pensions to provide safety-net retirement incomes for people who are not members of formal schemes (HelpAge International 2006).

These redistributive measures, if correctly targeted, would also contribute to promoting economic inclusiveness. Not only would they increase the incomes of the poorest, they would also increase economic opportunity by providing greater stability of income and insurance against shocks. Microfinance, which is discussed in the next section, would also increase the capacity of households to invest in durable goods, including housing, further widening their opportunities to participate in the economy.

Investment

Infrastructure investment: The government can encourage investment spending either by spending more directly, or by taking steps to improve the investment climate to induce private firms to invest more. There may well be scope to expand socially useful investment, particular infrastructure investment. ADB/ADBI (2008) estimates that Asia's infrastructure needs through 2020 total a massive \$US 8 trillion. Improving connectivity, by reducing transport costs, can increase the size of the effective final demand market in Asia, increasing its potential to act as a growth engine for the region. This is particularly important in view of the rapid rise of Asia's middle class as a source of consumption demand.²

Government policies can also encourage private investment in sectors related to green growth, including environmental protection, energy conservation and climate change prevention and mediation. The fiscal stimulus program of Korea during the global financial crisis provides an important example of this. Such measures also include both elimination of existing subsidies that encourage excessive consumption of energy and other resources, and introduction of Pigovian-type taxes to internalize externalities into corporate decision-making.

Improvement of investment climate: In addition, there is significant potential to invest in improving the investment climate to encourage private investment. Schou-Zibell and Madhur (2010) provide a comprehensive assessment of investment climates in six developing Asian countries (PRC, Indonesia, Malaysia, Philippines, Thailand, and Viet Nam) in comparison with five benchmark economies—Hong Kong, China; Japan, the Republic of Korea (hereafter Korea), Singapore and the US. They find that investment climates in all of these countries except Malaysia still lag considerably behind those of the benchmark countries. Although some measures to improve climate do not necessarily require significant expenditure, e.g., improvements in governance, investor protection, legal rights, taxation and regulation, others do, including improving infrastructure, investment in education and training to raise skill levels, enforcement of legal protections, and improvement of financial market infrastructure.

Schou-Zibell and Madhur (2010) find that the quality of infrastructure in the PRC, Indonesia, Philippines, Thailand and Viet Nam lags considerably behind the level of the benchmark countries. Aside from physical infrastructure, they note that other aspects of cross-border infrastructure investment, including soft investment, can also play a key role to improve the investment climate for traded goods. As one example, they find that efficient customs

² Recent developments in the growth of Asia's middle class are described in ADB (2010).

processing, including an electronic data interchange system, can have numerous benefits. Such electronic transmission of documents not only speeds up the clearance of goods, but can also reduce opportunities for soliciting bribes.

Corporate tax policy: High levels of corporate taxation and onerous payment methods can also discourage investment. A number of Asian countries have taken steps to lower corporate tax rates and simplify payment methods, including the PRC, Malaysia, and Thailand, but more can be done in this area. For example, the PRC reduced its Enterprise Income tax to equalize tax rates between foreign invested enterprises (“FIEs”) and domestic enterprises. Nevertheless, the total tax rate as a percentage of profit, remains high at nearly 80% (Schou-Zibell and Madhur 2010). Next highest are Japan and the Philippines, at about 55% of total profits.

Deepening financial markets: Deepening of financial markets can also play an important role in facilitating investment, both domestically and within the region. In particular, regional bond markets, especially markets for corporate bonds, lag well behind developed world benchmarks in terms of market value relative to GDP (see Table 3). This reflects a number of factors, including the regulatory environment, withholding taxes, lack of infrastructure for interest rate and currency swaps, lack of legal protection for investors, and lack of coverage by credit rating agencies (see Mayes, Morgan and Lim forthcoming).

Table 3: Sources of Private Sector Funding as % of GDP

% of GDP	Private credit by deposit money banks		Stock market capitalization		Private bond market capitalization		Total	
	1996	2008	1996	2008	1996	2008	1996	2008
PRC	77.2	101.6	8.7	104.2	2.7	15.5	88.7	221.4
Hong Kong, China	146.7	138.7	236.9	378.7	11.9	14.4	395.5	531.8
India	21.7	46.7	32.1	100.1	1.1	3.3	54.8	150.1
Indonesia	50.5	23.2	34.7	30.2	1.6	1.6	86.9	54.9
Japan	179.7	99.9	72.8	78.0	45.6	37.1	298.2	215.0
Korea	49.2	100.6	28.7	85.4	38.0	60.0	115.9	246.1
Malaysia	123.6	96.0	262.7	115.5	35.4	41.5	421.7	253.1
Philippines	41.0	21.2	84.3	45.7	0.2	0.9	125.4	57.2
Singapore	90.9	97.3	161.1	146.4	10.6	14.5	262.5	258.2
Taipei, China	121.0	127.7	79.9	141.3	22.4	22.2	223.3	291.2
Thailand	137.1	89.7	66.3	54.6	8.0	16.3	211.3	160.7
Viet Nam	17.1	81.4	—	16.1	—	—	17.1	97.5

Notes: GDP= Gross Domestic Product; PRC= People’s Republic of China; —= data not available.

Source: CEIC database (<http://www.ceicdata.com>) (accessed 12 April 2010).

Government expenditures can be used to encourage financial market deepening, for example, by taking steps to encourage the development of needed financial infrastructure, including the markets for interest rate and currency swaps. Improvement of tax treatment, especially withholding tax on foreign investors, can also play a significant role. Improved government debt management to provide a reliable yield curve with well-traded issues could provide significant payoffs with minimal cost to the Treasury. All of these measures would significantly increase the attractiveness of bond markets to foreign as well as domestic investors, thereby reducing borrowing costs.

SMEs continue to play a key role in economic development, due to their large share of total employment and their role in promoting innovation, but typically they have difficulty in obtaining finance because of a lack of credit information and collateral available for borrowing purposes. Regarding the latter, steps to improve the financial data infrastructure such as credit databases can play an important role in improving the ability of small and medium-sized enterprises (SMEs) to obtain credit, particularly if they co-exist with effective

collateral laws. Development of funded pension plans as part of deepening social protection could have the beneficial side-effect of deepening the domestic investor base, thereby expanding the market for domestic credit. Establishing an institutional framework for microfinance can enhance the ability of households and small firms to finance investment and smooth volatility incomes.

Net exports

Expansion of fiscal policy can directly affect net exports as well. First, increased government or private expenditure is likely to lead to an increase in imports. Second, to the extent that stronger domestic demand tends to raise interest rates and lead to currency appreciation, net exports can further be reduced. If export promotion policies have been carried out in a significant way, then ending them would produce some net benefits to the fiscal balance as well as contributing to a reduction of net exports. Reduced foreign exchange rate intervention would lessen the amount of foreign exchange financing bonds to needed to be issued, while ending export subsidies and other price distortions would also reduce fiscal costs.

6. WAYS TO INCREASE MACROECONOMIC AND FINANCIAL STABILITY

Improved macroeconomic and financial stability can also potentially contribute to rebalancing by reducing the need for precautionary saving, both for households and for corporations, and by improving the investment climate. This has three broad aspects. First, monetary policy needs to take into account financial stability more explicitly. This does not necessarily mean having an explicit target for financial markets. Such a target would be unworkable due both to the volatility of such markets and the problems inherent in defining financial stability, and it could be a distraction from the main task of stabilizing inflation. However, the lesson of the global financial crisis is that monetary authorities at the very least need to pay close attention to risk factors associated with asset prices, and to take a more active role in “leaning against the wind” in order to avoid the buildup of such financial stability risk (Filardo and Genberg 2010). The costs of “cleaning up afterward” now appear to be too high to be acceptable.

The adoption of a framework for macroprudential supervision and regulation can make an important contribution to securing greater macroeconomic and financial stability. The experience of the global financial crisis shows that financial stability cannot necessarily be adequately assessed by microprudential supervision alone, i.e., by examining the financial strength of individual institutions in isolation. The role of macroprudential supervision is to examine the interrelations of different market actors and financial markets, particularly in situations of economic stress. Moreover, it is critically important for the financial stability regulator to have adequate macroprudential tools to intervene in markets if it finds that risks to financial stability are developing (Kawai and Pomerleano 2010). Having such tools, including loan-to-value ratios, loan-to-income ratios and restrictions on bank leveraging, can provide alternatives to changes in the policy interest rate to influencing the financial sector. This can potentially ease policy conflicts when near-term inflation conditions imply a different policy stance than that suggested by more forward-looking asset price movements.

Management of capital flows can be seen as one aspect of macroprudential management—focusing on ways to reduce the volatility of capital flows to avoid “sudden stops” associated with large-scale capital outflows, as well as potential risks of inflation and asset bubble arising from overly exuberant short-term capital inflows. For countries whose capital accounts are already liberalized, capital flow management tools can include surcharges, time limits on inward foreign deposits, and incentives to lengthen the maturity of such investments. For countries whose capital accounts are not yet liberalized, including the PRC and India, they have considerably greater flexibility in managing capital flows. In that case,

the task is to balance the need for gradual and phased capital account liberalization to improve capital allocation against the costs of excessive volatility of capital flows.

Increased currency flexibility provides greater flexibility in managing external shocks as well. The increased flexibility of Asian currencies during the global financial crisis compared with during the Asian crisis was one factor that helped to contribute to an early rebound of Asian exports and growth. Of course, during the crisis this was downward currency flexibility. As capital inflows resume, it is important for currency authorities to put aside their “fear of floating” and allow upward flexibility of their currencies as well. This will help to reduce inflationary pressures, and will also tend to reduce the “one-way” bet inherent in managed currency regimes that tends to invite speculative capital inflows.

Some argue that a rising currency may invite more capital inflows because of rising expectations of further currency appreciation. However, these dangers are easy to exaggerate. To the extent that under-valued currencies appreciate, they move closer to their “equilibrium” levels (using the term as loosely as possible), which implies that the scope for speculative gains has diminished. Also, as mentioned above, the monetary authorities need to have adequate macroprudential tools to limit capital inflows if they are perceived as a threat to financial stability.

7. CONCLUSIONS

This paper describes the contribution that macroeconomic policy can make to promote a rebalancing of growth away from dependence on exports to developed economies to a more sustainable pattern of growth centered on domestic and regional demand. This represents a significant departure from the traditional uses of macroeconomic policy to stabilize the economic cycle and achieve stable and low inflation. In comparison with these more traditional applications of macroeconomic policy, the literature on this subject is still quite scarce. However, the evidence suggests that there is significant scope for macroeconomic policy to exert an influence on the investment-savings balance. Moreover, policy measures not only can affect aggregate demand directly, but can also affect it indirectly via their “microeconomic” impacts on private sector behavior. These policies are summarized in Table 4.

Table 4: Channels for Macroeconomic Policy to Encourage Rebalancing

Channels	Policy	
	Fiscal	Monetary
Consumption Lessen precautionary savings	Expand social safety net	Improve macroeconomic and financial stability, including capital flow management
Increase income	Income transfers From corporate sector To low-income groups	
Increase labor productivity	Increase education spending	
Investment Public investment	Infrastructure investment	
Private investment		Monetary easing; improve macroeconomic and financial stability, including capital flow management
Deepen bond markets	Financial market infrastructure; bond market management	
Deepen SME finance	SME financing infrastructure—databases	
Net exports	Fiscal expansion, cuts in export subsidies	

Source: Author.

First, although in the long-term fiscal policy should be balanced to maintain government debt stability and avoid crowding out of private investment, there may be significant scope to expand monetary and fiscal policy in the medium-term support aggregate demand to offset the deflationary effects of an appreciating currency during a period of current account surplus reversal. If anything, the evidence suggests that the deflationary effects of such appreciation episodes have tended to be overestimated, leading to an overshoot of stimulus which then led to inflation and/or asset bubbles. This suggests that most of the needed stimulus can be provided by monetary policy, with only a supplementary role to be played by fiscal policy. Moreover, current account surplus countries have typically begun episodes of sustained currency appreciation with ample policy space.

The evidence suggests that excessive savings rather than insufficient investment is the main factor behind high current account surpluses in Asian economies. This implies that measures to encourage consumption, either by raising the level of household disposable income or reducing the savings are likely to have the highest payoff in terms of reducing imbalances. Increased spending on social protection, including health insurance, unemployment insurance and pensions, as well as investment in education, are key ways to reduce household demand for precautionary savings. In countries such as the PRC, where the share of households in national income is abnormally low, income transfers from the corporate sector can also play a significant role in boosting income. More broadly, income transfer schemes can support consumption by shifting incomes to lower-income households that tend to have higher propensities to consume. Such transfer schemes, if properly implemented, can also reduce the volatility of income, also reducing the need for precautionary savings.

Governments can raise investment spending directly through increased government investment, especially infrastructure investment. Such investments can play an important facilitating role in expanding the effective size of regional markets by facilitating trade and investment. There also may be large payoffs to making investments to improve the investment climate, thereby encouraging private investment. This may be particularly effective in those countries hit hard by the Asian crisis that score relatively low in terms of investment climate, including Indonesia, the Philippines, Thailand and Viet Nam. Cutting and simplifying corporate tax rates and payment procedures can also encourage investment. Government assistance to deepen financial markets can also contribute, including improving the infrastructure for corporate bond markets, developing credit databases and other infrastructure for SMEs, and developing the infrastructure for microfinance. Finally, dismantling of schemes to support exports, including foreign exchange intervention and export subsidies, can have direct positive impacts on the fiscal balance as well as promoting a reduction of net exports.

Improvement of frameworks for macroeconomic and financial stability can also support domestic demand by reducing uncertainty. This includes giving more explicit weight to financial stability as an objective of monetary policy, developing a macroprudential framework for financial surveillance and regulation, and refining policy tools for management of capital flows.

REFERENCES

- Adams, C., B. Ferrarini and D. Y. Park. 2010. Fiscal Sustainability in Developing Asia. ADB Working Paper No. 205. Manila: Asian Development Bank.
- Aizenman, J., and J. Lee. 2005. International Reserves: Precautionary vs. Mercantilist Views, Theory and Evidence. IMF Working Paper No. 05/198. Washington, DC: International Monetary Fund.
- Asian Development Bank. 2008. "Investment Climate in Selected ASEAN Countries." April.
- . 2009. Rebalancing Asia's growth: A question of balance. In *Asian Development Outlook 2009*. Manila: Asian Development Bank.
- . 2010. The Rise of Asia's Middle Class. In *Key Indicators for Asia and the Pacific 2010*. Manila: ADB.
- Asia Development Bank and Asia Development Bank Institute. 2008. *Architecture for a Seamless Asia*. Manila: Asian Development Bank.
- Athukorala, P. and P.-W. Tsai. 2003. *Journal of Development Studies* 39(5): 65–88.
- Baldacci, E., et al. 2010. Public Expenditures on Social Programs and Household Consumption in China. IMF Working Paper No. 10/69. Washington, DC: International Monetary Fund.
- Baulch, B., A. Weber, and J. Wood. 2008. *Social Protection Index for Committed Poverty Reduction – Volume 2: Asia*. Manila: Asian Development Bank.
- Bernheim, B. 1987. Ricardian Equivalence: An Evaluation of Theory and Evidence. In S. Fisher, ed. *NBER Macroeconomics Annual 1987:2*. Cambridge, MA: MIT Press.
- Bery, S. 2010. Global rebalancing: An Indian perspective. In Claessens, S., S. Evenett and B. Hoekman, eds. 2010. *Rebalancing the Global Economy: A Primer for Policymaking*. Centre for Economic Policy Research (CEPR), London.
http://www.voxeu.org/reports/global_imbalances.pdf (accessed 2 July 2010)
- Bosworth, B., and S. Collins. 2010. "Rebalancing the U.S. Economy in a Post-Crisis World." Paper prepared for the Trans-Pacific Rebalancing Conference jointly organized by Asian Development Bank Institute and The Brookings Institution, March 3-4, ADBI, Tokyo.
- Chamon, M. and E. Prasad. 2008. Why Are Saving Rates of Urban Households in China Rising. NBER Working Paper 14546. Cambridge, MA: National Bureau of Economic Research.
- Chou, S.-Y., J.-T. Liu, and J. K. Hammitt. 2003. *Journal of Public Economics* 87(9-10): 1873-1894.
- . 2006. *Review of Economics of the Household* 4(4): 395-421.
- Eichengreen, B. 2009. Lessons of the Crisis for Emerging Markets. ADBI Working Paper No. 179. Tokyo: Asian Development Bank Institute.
- Economist Intelligence Unit. 2007. *World Investment Prospects to 2011*. London: The Economist Intelligence Unit.
- Feng, J., L. He, and H. Sato. 2009. Public Pension and Household Saving: Evidence from urban China. Global COE Hi-Stat Discussion Paper Series 030. Tokyo: Hitotsubashi University.

- Filardo, A. and H. Genberg. 2010. Monetary Policy Strategies in the Asia and Pacific Region: What Way Forward? ADBI Working Paper No. 195. Tokyo: Asian Development Bank Institute.
- HelpAge International. 2006. Why Social Pensions are Needed Now. Available: www.helpage.org/Researchandpolicy/Socialprotection/PensionWatch/Feasibility
- Horioka, C. Y., and J. Wan. 2007. The Determinants of Household Saving in China: A Dynamic Panel Analysis of Provincial Data. *Journal of Money, Credit, and Banking* 39 (8): 2077–2096.
- Horton, M. 2010. Fiscal Policy Issues After The Crisis. *Public Policy Review*. 6(4): Tokyo: Japan Ministry of Finance Policy Research Institute.
- Huang, Y.-P. and K. Tao. 2010. Causes and Remedies of China's Current Account Surpluses. CCER Working Paper 2010002. Beijing: China Center for Economic Research, Peking University.
- International Monetary Fund. 2010. Chapter 4. Getting the Balance Right: Transitioning out of Sustained Current Account Surpluses. In *IMF World Economic Outlook*. International Monetary Fund, Washington, DC, April.
- Jha, S., E. Prasad, and A. Terada-Hagiwara. 2009. "Saving in Asia; Issues for Rebalancing Growth." ADB Economics Working Paper Series No. 162. Manila: Asian Development Bank.
- Kawai, M., and M. Pomerleano. 2010. Regulating Systemic Risk. ADBI Working Paper No. 189. Tokyo: Asian Development Bank Institute.
- Lee, J.-W. 2010. Asia's role in global rebalancing. In Claessens, S., S. Evenett and B. Hoekman, eds. 2010. *Rebalancing the Global Economy: A Primer for Policymaking*. London: Centre for Economic Policy Research (CEPR). http://www.voxeu.org/reports/global_imbalances.pdf (accessed 2 July 2010)
- Levy-Yeyati, E. and F. Sturzenegger. 2009. Fear of appreciation: exchange rate policy as a development strategy. In Hammond, G., F. Kanbur and E. Prasad, eds. 2009. *Monetary Policy Frameworks for Emerging Markets*. Cheltenham, UK: Edward Elgar.
- Lin, J. 2009. "Paradigm Shift on Both Sides of the Global Imbalance." Paper presented at the Brookings-Caijing Conference in Washington, DC, January.
- Ma, G., and W. Yi. 2010. China's high saving rate: myth and reality. BIS Working Papers No 312. Basel, Switzerland: Bank for International Settlements.
- Mayekawa, H., et al. 1986. Kokusai kyouchou no tame no keizai kouzou chousei kenkyuukai houkoku sho. Tokyo, Japan. <http://www.ioc.u-tokyo.ac.jp/~worldjpn/documents/texts/JPUS/19860407.O1J.html> (accessed 26 July 2010). (in Japanese)
- Mayes, D., P. Morgan and H. Lim. 2010. Deepening the financial sector. In M. Kawai and J.-W. Lee, eds. *Rebalancing for Sustainable Growth: Asia's Postcrisis Challenge*. Tokyo: Asian Development Bank Institute (forthcoming).
- McKinnon, R. I. 2010. Why exchange rate changes will not correct global trade imbalances. In Claessens, S., S. Evenett and B. Hoekman, eds. 2010. *Rebalancing the Global Economy: A Primer for Policymaking*. Centre for Economic Policy Research (CEPR), London. http://www.voxeu.org/reports/global_imbalances.pdf (accessed 2 July 2010)
- McKinsey Global Institute (MGI). 2009. *If you've got it, spend it: unleashing the Chinese consumer*. McKinsey Global Institute. Available: http://www.mckinsey.com/mgi/reports/pdfs/unleashing_chinese_consumer/MGI_Unleashing_Chinese_Consumer_full_report.pdf

- Prasad, E. 2009. Rebalancing Growth in Asia. IZA Discussion Paper No. 4298. Institute for the Study of Labor, Bonn.
- . Forthcoming. “Is the Chinese Growth Miracle Built to Last?” *China Economic Review*.
- Schou-Zibell, L., and S. Madhur. 2010. Regulatory Reforms for Improving the Business Environment in Selected Asian Economies—How Monitoring and Comparative Benchmarking Can Provide Incentive for Reform. ADB Working Paper Series on Regional Economic Integration No. 40. Manila: Asian Development Bank.
- Takagi, S. 2009. The Global Financial Crisis and Macroeconomic Policy Issues in Asia. ADBI Research Policy Brief 32. Tokyo: Asian Development Bank Institute.
- Wang, D. 2010. Can Social Security Boost Domestic Consumption in the People’s Republic of China? ADBI Working Paper No. 215. Tokyo: Asian Development Bank Institute.