

Chapter 1

Macroeconomic Rebalancing and Financial Integration in East Asia: Overview

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CHAPTER 1

Macroeconomic Rebalancing and Financial Integration in East Asia: Overview

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1. Introduction

Since the Asian Financial Crisis (AFC) of 1997–98 large current account surpluses have accumulated in the countries of Asia and the Pacific with corresponding deficits elsewhere. These surpluses are a result of a complex mix of factors that result from rapid economic growth with an increasing dependence on export-oriented industries in the countries of the region. Past experience of global external imbalances teaches that they may be sustainable for extended periods as long as the matching financial flows do not strain the international financial system but, eventually, the pattern is unsustainable. Deficit countries have to adjust macroeconomic policies and reduce consumption while surplus countries must also adjust policies or allow inflation to erode the competitive advantage that underpins export performance. They will also face changes to the structure of their economies as resources are shifted from externally-oriented sectors (traded) to domestically-oriented ones (including non-traded). The present imbalances must eventually be corrected but the timing is uncertain. Both sides of the imbalance

will not be well-served by an adjustment problem arising at short notice. Thus some “rebalancing” now can reduce the vulnerability to the high cost of sudden reversals.

The studies in this volume consider the East Asian side of the equation. We look at the economic structures and policies that give rise to current account surpluses and consider what policy adjustments could change them. This is not because the problem lies only in Asia. History makes abundantly clear that behaviour, policy and economic structure on both sides of global imbalances need to adjust. The great disruptions to the global economic system, such as the collapse of the Bretton Woods system of managed exchange rates in the 1970s, occur when adjustment is asymmetric and postponed to the point of explosion. The focus on Asia also derives from the recognition that the surplus countries have important interests in reducing the imbalances just as much as the deficit countries. From the perspective of the East Asian countries, the interest in growth rebalancing is motivated by several 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, which represents the accumulated surpluses and is largely held in dollar denominated government bonds, might become so high that repayment becomes impossible. Third is the possibility that, in the absence of a managed process, uncontrollable pressure builds in either the foreign exchange markets or the domestic money markets. In the former case, sudden changes to currency values could result in capital losses on the foreign assets held, while in the latter, domestic inflation could become difficult to control.

The studies draw a more nuanced picture than is usually available in discussing imbalances. We begin from the premise that the imbalances are a macroeconomic problem that reflects a mismatch between savings and investment in the surplus countries. Causality is difficult to establish but it is clear that either or both of high savings and low investment will give rise to a savings gap that must be matched either by domestic government consumption (fiscal deficits) or by external surpluses. To understand the origins of the mismatch we consider what policies impact on the incentives to save and invest. We consider whether the macroeconomic and microeconomic evidence supports the idea that corporate savings in particular, are the source of the imbalance in China (which is such a large part of the story) or in the other

countries of the region and draw attention to reasons to doubt one current conventional view.

Since causation can also run from the large export surplus back to domestic excess savings we also look for evidence of policies that distort resource allocation towards “excessive” focus on export sectors or outward orientation of the economies. Much policy debate (too much in our view) focuses on the role of prices (i.e. exchange rate misalignment) in encouraging exports and implies that changing relative prices, by revaluing Asian currencies, will be the key to correcting imbalances. We consider whether this is likely to be effective in the case of China and whether, and why, other Asia economies might resist foreign pressure for revaluation as the Chinese have. Part of the explanation for their currency strategy lies in their perceived need to build war chests of foreign exchange reserves to provide a buffer in case of instabilities similar to those of the Asian and recent Global Financial Crises. The excessive reliance on exports is as much a consequence of these other reasons for keeping exchange rates low and accumulating reserves, as it is a cause. We therefore consider whether countries are able to take advantage of other possibilities for insuring against economic volatility by more actively and openly engaging with international capital markets and show that closer financial integration, involving more open financial markets, with well-chosen partners, would be welfare-improving and should reduce the need for the counter-productive self-insurance policies that result in managed exchange rates and foreign exchange accumulation.

Much of this analysis leads to the conclusion that financial market liberalisation and reform, greater openness and more flexible exchange rates will be important policy tools to enable the structural changes that will support a gradual reduction of surpluses and a redirection of resources to the non-traded sector that will absorb employment and allow an orderly rebalancing. What are the risks? It seems clear that governments in the region still worry that moving in this direction will bring greater, rather than less, economic volatility. We therefore examine how financial integration is linked to the transmission of economic shocks to the real economy and between economies.

The measurement of integration, in both financial and trade spheres, is not easy, so it is useful to set out some stylized facts about which countries are most closely integrated with which others in the region. A new method for measuring integration

reveals some surprises about which partners are currently most closely linked. We then ask which partners would be the best combinations based on economic welfare considerations rather than historical and political ones that give rise to the current arrangements. Again there are patterns that challenge understanding of the status quo. The policy message is not, however, to unpick existing arrangements but that there are still further gains to be derived from more integration and openness, often with specifically selected partners, and that these gains come because openness reduces, rather than increases, volatility. At the same time, policy to open financial markets can have unintended consequences and we examine whether different types of capital flows into the region are complements or substitutes so that the impact on each type of flow from opening markets to other types of flow can be understood.

To support our emerging view that financial openness has significant benefits that are not yet fully captured in the region, and that could enhance welfare as well as aid in the rebalancing process, we look at the transmission mechanisms of real sector volatility and whether the countries in the region have become decoupled from global business cycles. We examine the main sources of transmission of recent shocks during the global financial crisis to discover the role of financial and real (trade) shocks and look also at whether business cycle volatility is transmitted within the region or comes mainly from outside. We then look more closely at the role of banks in transmitting financial shocks and compare the role of cross-border bank flows with the activities of multinational banks within countries. The behaviour of regionally-owned banks is seen to differ from multinationals. Certain types of bank regulation are seen to improve the efficiency and performance of banks during crisis periods.

2. Economics of Savings, Investment and Global Imbalances

While almost all countries in the region are running large current account surpluses (except Australia and NZ), Warr (Chapter 2) notes that China accounts for over half the total. The countries that were most affected by the Asian crisis account for a much smaller part of the region's surplus. Unpacking the matching savings-investment

imbalance, Warr notes that in the crisis-affected countries (Indonesia, Korea, Malaysia, the Philippines, Thailand, Vietnam) there has been a large, but not overwhelming increase in private savings while in the group of countries not affected by the Asian crisis (Australia, NZ, China and Japan), 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 even larger than China's. Overall there is a significant increase in savings for all countries but large declines in investments in the Asia-crisis-affected countries and smaller investment declines in the other countries. While the decline in investment may be a response to the overinvestment boom before the crisis, there is some evidence that the imbalances are as much driven by investment behavior as by savings. Both the savings increase and the investment declines appear to have been driven by rising uncertainty in Asia. Warr's policy conclusion is that improvements to the investment climate and the provision of social safety nets will go some way to solving these problems. Restoring confidence in household income growth would reduce the need for households' precautionary savings (the low share of household income in China has been noted as a cause of relatively high savings there by IMF (2010)). On balance, it is more important to focus on policies that increase investment than on those that reduce savings since the former will promote growth which will, in turn, allow consumption growth. Warr points out that if the bulk of adjustment comes from reduction in Asian savings, global interest rates will rise. This is an important reason why an increase in savings in the deficit countries will be an important element of the global solution.

An important question is whether policy distortions contribute to an excessive focus on exports or on the traded goods sector (as suggested by IMF (2010)). Chapter 3 uses evidence from the World Business Environment Survey to show that, while East Asian governments provided a generally good business environment, they did not emphasise trade or inward foreign investment any more than governments in other regions. Aisbett finds no evidence of trade-related distortions to policy (i.e. policies that favoured exporting firms over others or foreign over domestic firms and which could contribute to an excessive build-up of current accounts), though there is some evidence of favourable treatment of outward-investing firms. This may suggest a policy orientation

that encourages the accumulation of foreign assets rather than a focus on domestic investment, but otherwise does not provide strong evidence of a need for policy change in this area (though it does not rule out the need for policies that encourage the development of new, domestically-focussed business). The study does draw attention to the lack of good survey data in the region and recommends that data be collected that would match that available in other developing regions of the world such as Latin America so that a more nuanced view of the effect of specific policy effects can be developed. Given the growing expertise of ERIA in building survey-based datasets, this would be a useful contribution for a future project.

The macroeconomic analysis of Chapter 2 already raises questions about a conventional view that excess savings in Asia is the major source of the imbalances. Chapters 4 and 5 develop this argument further. Corbett and Twite (Chapter 4) argue that the microeconomic evidence from listed-company accounting data do not indicate a problem with excessively high company savings. Companies in the region do not have excessively high retentions nor are their dividend payouts unusually low. Where they do build up accumulations of liquid assets (i.e. holding their accumulated profits as cash or in financial assets) these are quickly applied to capital expenditure so that the share of fixed assets (plant and equipment) in total assets is high. While the data do not cover the entire corporate sector, leaving out small and medium firms that are not listed, the listed company sector is now quite large in most of the region's economies. As several of China's state-owned enterprises are now partially privatized and have some shares listed, they are also included. The authors conclude that the imbalance between savings and investment seems to be the result of constraints on the investment side, rather than incentives to build up excessive savings. A policy focus on the drivers, determinants and impediments to investment will be a more productive way to respond to global imbalances than a narrow focus on corporate savings. Preliminary results suggest that financial constraints are an impediment to investment for many firms, providing further support for the need for financial sector reform. Further research on elements of the broad, country-level policy variables used in this study (legal systems, corporate and shareholders rights, indicators on corruption and financial market openness) would help to identify particular policy actions.

Chapter 5 presents two important arguments about global rebalancing and the case of China. First, Wei doubts there is strong link between exchange rate regimes and current account imbalance. He reiterates the results of his other empirical studies showing that shifting to flexible change rates in China might not lead to a fast adjustment of current account. Second, compared to the exchange rate regime, Wei argues that China's unusually high national saving rates is a more fundamental factor that explains China's current account surplus. He emphasizes that Chinese national savings are driven by household savings, not by corporate behavior. The best explanation for high household savings is demographic. As a result of the one-child policy and the gender imbalance that arose, there is a competition for marriage partners that lead to savings for wealth accumulation. The policy responses that are normally proposed to change savings behavior will not redress this balance and there is no benefit to the commonly proposed policies to change exchange regimes or to focus on corporate savings behavior.

Chapter 6 reinforces Chapter 5's challenge to the conventional prescriptions for China's currency appreciation, by noting that the effect may be quite different from the conventional one as a result of the production network structure of trade. A revaluation of the Chinese currency that was not followed by other Asian economies could increase the competitiveness of Chinese exports by reducing the cost of imported components. Yamashita is able to show the effects using new data on the detailed composition of regional trade and a carefully constructed, trade-weighted exchange rate that demonstrates the offset to the expected decline in export in the face of revaluation. The argument of Chapter 6 draws attention to the importance of the response by Asian countries to yuan revaluation, which is the subject of Chapter 7. Pontines and Siregar show evidence of a general fear of appreciation over long periods not associated with crisis, and additionally a fear of floating during crisis periods for major Asian countries including, but not only, China. Their smooth transition, auto-regressive model finds that five countries (Indonesia, Korea, Philippines, Thailand, and Singapore) show clear aversion to currency appreciations during the pre-GFC period and a stronger aversion to appreciation against the Chinese renminbi than against the US dollar. Under crisis conditions, there is a general tendency to manage exchange rates and avoid currency movements in either direction.

Chapter 8 extends the understanding of the region's currency management by showing that there are multiple reasons why countries manage exchange rates so as to accumulate foreign exchange reserves from current account surpluses. In addition to any "mercantilist" desire to preserve exchange rates for competitiveness, a dominating motivation is self-insurance: countries are accumulating reserves beyond what would be needed just to meet private sector demands and keep the exchange rate stable. Governments are doing more than just "leaning against the wind" to stabilize currencies and are helping to keep them undervalued to build war chests of reserves. Understanding this motivation gives rise to policy recommendations. Since the concern is about instability, rather than competitiveness, policies (including explicit international and regional cooperation) to improve the access to international financial support in times of crisis would reduce this pressure.

3. Transmission of Shocks and the Role of Financial Integration

While opening financial markets may help in growth rebalancing, an important policy concern is whether they bring greater vulnerability to shocks. This is the question addressed by the remaining papers which focus on the major transmission mechanisms of shocks, the role of integration in transmission, the extent of synchronization of business cycles within the region and the degree of external decoupling and the role of banks, against the background of an increasingly liberalized but still incompletely integrated Asian financial system.

3.1. Integration, Openness and Stability

Economic integration in Asia is an ongoing, dynamic and multifaceted process. Compared to North America and Western Europe, it is commonly understood that economic integration in Asia is in its early stage and confined to a few sectors of a few countries in the region. However, since the aftermath of the Asian Financial Crisis, economic liberalization and integration in Asia have gained momentum. Integration has become more far-reaching and interactions among Asian economies in trade and

financial sectors have become more complex than a decade ago. The first three studies provide fresh perspectives to understand the increasingly complex, dynamic nature of the integration process in Asia and shed light on a number of important policy agendas by examining measures and characteristics of the economic integration in both trade and financial aspects (Chapter 9), consumption correlations among country pairs in the region (Chapter 10) and the dynamics of the interactions between components of financial integration (Chapter 11).

There is no single measure that sufficiently captures all salient characteristics of integration between economies. Cavoli employs various measures of the extent of economic integration in East and Southeast Asia on real and financial dimensions, including measures of business-cycle correlation, deviation from relative PPP (RPPD), trade openness, deviation from uncovered interest parity (UID), equity market correlations, and Foreign Direct Investment openness. Using a new principal components analysis to create a measure of ‘overall’ integration, Cavoli finds that the original ASEAN nations (Indonesia, Malaysia, the Philippines, Singapore and Thailand) seem to be more integrated with the rest of Asia than other groups (new ASEAN, Plus 3, ASEAN+3) in terms of both real and financial integration. They also tend to be well integrated with each other and price measures that pick up co-movement in financial markets indicate this group is the most internally financially integrated of all groups. The newer ASEAN members are the least integrated across all measures. The quantity measures show that Japan, Korea and China are highly integrated when measuring both trade intensity and FDI and portfolio intensity, but less so in finance. The measures indicate that there are quite well-defined clusters, or sub-regions, in terms of integration. While the larger economies are quite well integrated with the smaller ones, they are not as well integrated with each other. The policy implications for the design of trade or investment accords need to be further examined, but the results suggest that the region as a whole does not yet meet the criteria for close integration that would be considered a pre-requisite for a regional bloc moving towards a monetary union involving the three major countries.

If the current extent of integration varies across countries the question is whether this matters and why. Chapter 10 considers the benefits of integration and examines welfare gains in the East Asian region from greater use of the risk-sharing opportunities

provided by integration with countries that have different patterns of income variation. This allows a consideration of whether there are welfare gains from more integration and also identifies which partnerships provide the biggest gains. Corbett and Maulana confirm significant welfare gains of up to 5 per cent of annual consumption for some countries. They also find that pair-wise integrations achieve the bulk of the gains and that larger group integrations add decreasing value. Under certain circumstances the best pair for most of the 10 Asian countries studied is a developed country with a different business-cycle pattern, such as Australia. There is no evidence that the current Association of South-East Asian Nations Five (ASEAN 5) grouping is optimal in terms of risk reduction, or that there are gains from a grouping of China–Japan–Korea. For policy makers the welfare benefits of risk-sharing are large enough that they should form an additional part of the policy dialogue on regional integration. The results of such discussions might change the perspective on which partners should begin the process of closer financial cooperation. Since that process can be difficult it may be easier to begin with particular partners where integration will provide the largest benefits and move, subsequently, to add extra partners.

An important dimension of international financial integration is international capital flows. Chapter 11 studies the dynamics of the interactions between components of capital flows and explores whether the respective components—foreign direct investment, portfolio equity, portfolio debt, and bank flows—are substitutes or complements. Cavoli examines both the mean and the volatility of capital flows. The research framework, using a vector-autoregression approach (VAR) in a system of equations as well as analyzing a series of single-equation models, shows whether one type of capital flow enhances or inhibits the others and also whether these notions of substitution and complementarity apply to the volatility of the components of flows as well as to the level of each flow. Considering Hong Kong, Indonesia, Japan, Korea, Malaysia, the Philippines and Thailand for the period 2000-09 it appears that an increase in bank inflows crowds out FDI flows with a lag. Thus if policy makers employ liberalization policies relating specifically to bank inflows, this might have the effect of inhibiting FDI flows, which could be an unintended consequence of the policy. There is also some evidence of substitution between debt inflows and equity inflows. Higher volatility of debt inflows potentially results in an increase in FDI inflows so

policies designed to reduce the variability of debt flows might have the unintended consequence of reducing FDI inflows. On the other hand, any policy designed to make FDI inflows more stable might result in enhancing bank inflows. A key policy message from this study is that policy makers need to be mindful of the possibility of any crowding out in designing financial liberalization policy. Also, by utilizing the complementarity embedded in various components of flows, policy makers might be able to achieve policy targets in a cost-effective and efficient manner.

Given the potential benefits from greater financial market openness identified in the first section of this study, it is important to consider whether financial openness entails an increased potential for volatility. The severe damage imposed by the recent Global Financial Crisis on the global economy makes it imperative to understand the transmission of shocks to the region. The next two chapters focus on crisis transmission mechanism and the contribution of international and domestic shocks to macroeconomic outcomes in selected Asian countries.

Miankhel, Meehan and Kalirajan's study (Chapter 12) pays particular attention to the external shock transmission mechanisms to ASEAN+3 through trade and financial channels. The study tests whether trade or financial channels are the more important mechanisms for the transmission of external shocks. Using both an Error Correction Model (ECM) and a panel Vector ECM (VECM) model, the authors find that during the GFC, the real shock was transmitted through trade variables to Singapore and Malaysia, but the region as a whole demonstrates no short-term relationship between GDP and exports, i.e. there was little transmission of the shock via real channels. On the other hand, the ASEAN+3 region shows significant vulnerability to short-term capital movement and this suggests the financial channel transmitted the shock of the GFC into the region. Further work is needed to clarify the specific channels of transmission but the results add weight to earlier studies (e.g. Corbett, Onji and Gai (2009)) suggesting that banking systems in the region played some role in shock transmission. These issues are further examined in Chapters 14 to 17.

An implication of Miankhel, Meehan and Kalirajan's study is that external or foreign shocks might be an increasingly important part of regional business cycle dynamics in Asia. Dungey and Vehbi's study (Chapter 13) further explores this dimension. They model five East Asian economies respectively—Singapore, Thailand,

the Philippines, Malaysia, and Indonesia—in a small, open economy Vector Error Correction Model (VECM) and investigate the historical evolution of domestic responses to domestic and external output shocks. The external output shocks mainly originate in the United States and China during the period 1986-2009. Despite the rapid growth of China’s importance in the region, their study suggests that the United States remains much more important than China as source of external influences. The result delivers an important policy message that the economic situation in the United States is *the* key factor to be considered for understanding external sources of business cycle shocks and that, despite rapid growth and increasing regional integration, the region has not yet decoupled from the US. The world economy is an increasingly interconnected and integrated entity with one constantly influencing another. In Christine Lagarde’s words, the new managing director of the IMF, “Decoupling is a myth”¹. Asia, once a passive outsider, is now an active component of the entity. On one hand, through its massive and rapidly growing activities in international trade and financial markets, Asia is open to and integrated with the global economy on an unprecedented scale. On the other hand, these Asian economies unavoidably expose themselves, of various degrees though, to more trade and financial turmoil from the outside world than ever before. The evidence from this study seems to suggest that, on a macro level, the financial markets compared to trade are a main channel of external shock transmission in Asia.

3.2. Role of Banks in Shock Transmission

It is commonly agreed that Asian financial markets are still dominated by banks. A critical question that follows is what role banks played in transmission of financial shocks to the region. The next set of studies focus on the role of banks in shock transmission. They find that although cross-border bank lending has been an important element of importing instability from external sources, foreign banks’ local lending plays a positive role of stabilizing local financial markets facing stress. Reliance on funds from the global wholesale market influenced how much bank responded to international volatility and the extent to which they passed this on to local economies. Banks that were more reliant on external wholesale funding did cut back lending more

¹ The Economist (online version), <http://www.economist.com/blogs/freeexchange/2011/08/world-economy> (28/08/2011)

than other banks. As a result, these studies shed new light on key regulatory strategies for the Asian banking industry to prevent and counter harmful impact from future external crises.

Pontines and Siregar (Chapter 14) examine cross-border bank loans from the United Kingdom, the United States and Japan to five major Southeast Asian economies and Korea. They examine evidence on the push and pull factors and show that global banks indeed act as a channel of financial shock transmission from the global financial markets to the local economy. Policy reaction will require cross-border banking supervision and they argue for enhancing the central banks' main responsibility as the monetary authority supervising financial institutions, increasing cross-country supervisory cooperation, coordination to overcome information asymmetry on cross-country risk exposure and establishing a college of supervisors to facilitate cross-border policy cooperation. In addition, policies to reduce the complexity of large cross-border banks through 'subsidiarization', increasing capital levels and buffers and deposit insurance coverage, establishing cross-border collateral arrangements and imposing a systemic-risk charge on 'systematically important' cross-border institutions would help reduce volatility.

In contrast to cross-border lending, foreign banks' local lending has positive implications for financial stability. Extending the conventional view that local lending can be stabilising, Xu (Chapter 15) provides fresh evidence that country-of-origin of foreign banks explains variations in lending behavior and has distinctive effects on credit stability in Asia. Asian-owned foreign banks behaved quite differently from non-Asian during the Global Financial Crisis. The former showed the mildest change in credit growth in times of stress, contributing to credit stabilization, whereas the latter cut off credits sharply from the Asian periphery, undermining credit stability in the region. An important reason for the sudden withdrawal of credit from by non-Asian banks lies in the breakdown in the global wholesale funding market where these banks locate their funding source. The Asian-owned banks rely more for their funding on the more stable deposit base that developed out of increasing savings in the region and which were mainly intermediated through banks.

Policies to encourage Asian banks' entry to the local financial markets may be useful to enhance stability. While the Pontines and Siregar's study indicates that cross-

border lending is a potential source of financial instability they also recommend policies to welcome foreign banks' subsidiaries to reduce the volatility of foreign lending. Xu's study supports this finding by clarifying the unstable nature of local lending of large global banks from North America and Europe during the crisis and by showing that regional banks were stabilizers. This provides support for policies encouraging regional financial integration with Asian-owned foreign banks. The diversification of ownership of foreign banking will help to build a robust and stable Asian banking system.

Xu's finding on wholesale funding market is consistent with Onji, Vera and Gai's (Chapter 16) observation on the role of the money market in the transmission mechanism in the region. They examine disruptions in the money market during the Asian Financial Crisis and the Global Financial Crisis and find that 'money market dependent banks' had greater reduction in loans in Asia banks during the crises and that the financial sector's dependence on wholesale funds is a more important source of vulnerability in Asian economies than in other developed economies.

In addition to the cross-border lending channel revealed by Chapter 14, Onji, Vera and Gai's study highlights another channel of transmission of shocks: the wholesale channel via banks. This sends an important message to supervisors and policymakers in Asia that particular attention should be paid to wholesale-dependent banks when financial shocks occur outside the region and that new rules should be adopted to encourage banks to maintain liquidity in forms other than wholesale funding. The ongoing global financial crisis poses new challenges on banking regulation and supervision in the region. How have conventional bank regulation and supervision measures influenced banking efficiency and performance? Thangevalu and Findlay (Chapter 17) develop a database of 600 banks in the region to empirically test the effects of three main regulatory measures: restrictions on banking activities, capital requirements and private sector monitoring. Interestingly, higher capital requirements (higher total equity to total asset ratios) seem to have improved bank performance in Asia, with the deadweight losses from regulation being offset by the higher returns from decreased risk. This result is somewhat unexpected (since capital requirements are normally considered a deadweight cost on banks and lower risk portfolios would normally bring lower returns) though it has been verified in other studies. These results provide strong support for the implementation of the new requirements of Basel Accord

within the region. Additional policy messages relating to bank regulation point to the importance of utilizing private sector monitoring to aid public supervisors' scrutiny since private monitoring helps to reduce the risk taken on by banks at a lower cost than formal supervision. Off-balance sheet activities increase bank profitability but some risky activities endanger stability and should be restricted, which requires an efficient monitoring and supervisory system with sufficient capacity in identifying these risk sensitive activities. They also find that there are positive impacts on bank performance from foreign ownership and participation, again reinforcing the message that financial openness will be important for development and efficiency of the banking systems.

References

- Corbett, J., P. Gai, and K. Onji (2010). “The Banking System in East Asia and the Transmission of the Global Financial Crisis.” In *Linkages Between Real and Financial Aspects of Economic Integration in East Asia*, eds Christopher Findlay, Friska Parulian and Jenny Corbett, ERIA Research Project 2009 No. 1: 196–225.
- International Monetary Fund (IMF) (2009). *Regional Economic Outlook Asia and Pacific, October*, Washington: IMF.
- International Monetary Fund (IMF) (2010). *Regional Economic Outlook Asia and Pacific, April*, Washington: IMF.