Finding Asia's New Sustainable Growth Model Post GFC: The Role of the Central Banks

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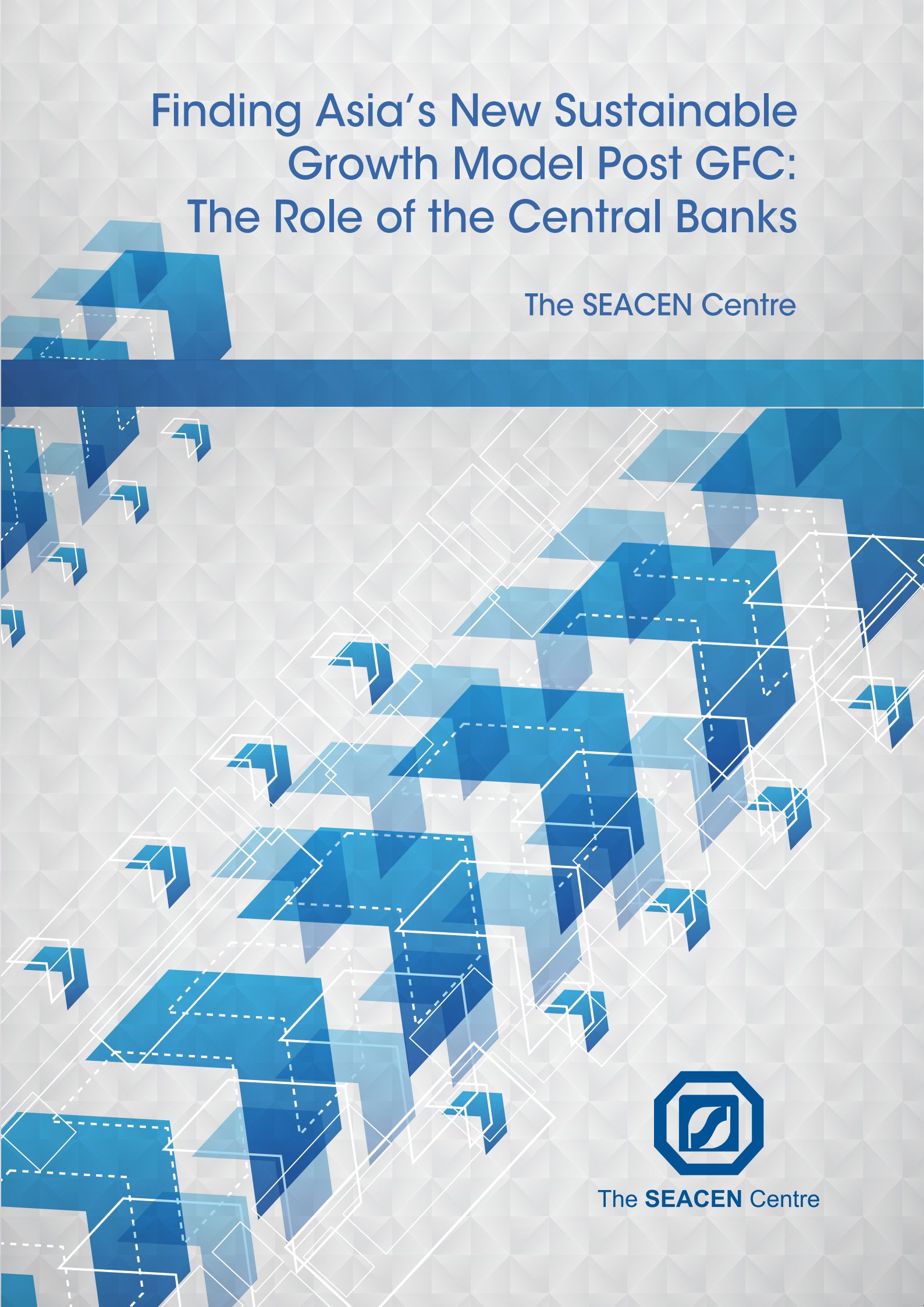

The **SEACEN** Centre

FINDING ASIA'S NEW SUSTAINABLE GROWTH MODEL POST GFC: THE ROLE OF THE CENTRAL BANKS

PROCEEDINGS OF HIGH-LEVEL CONFERENCE

Sasana Kijang, Kuala Lumpur, Malaysia
6-8 November 2012

The SEACEN Centre

The South East Asian Central Banks (SEACEN)
Research and Training Centre
Kuala Lumpur, Malaysia

Published by The South East Asian Central Banks (SEACEN)
Research and Training Centre
Level 5, Sasana Kijang
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Malaysia

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ISBN: 978-983-9478-26-6

Printed in Malaysia by Graphic Stationers Sdn. Bhd.

Foreword

This publication is a collection of the papers cum notes prepared for and included here as Proceedings of the High-Level Conference on *"Finding Asia's New Sustainable Growth Model Post Global Financial Crisis (GFC): The Role of the Central Banks"* held at Sasana Kijang, Bank Negara Malaysia, Kuala Lumpur, Malaysia, from 6-8 November 2012. The High-Level Conference was an outreach of the signature SEACEN research project for OP2012 to provide a forum for discussions on policy challenges faced by central banks in promoting sustainable economic growth and providing an environment conducive for financial, monetary and economic stability in the aftermath of the global financial crisis.

The Conference focused on the central bank's role in promoting sustainable economic growth in the aftermath of the recent GFC. Two contrasting trends have been observed in a number of SEACEN economies in the context of the recent global financial crisis. On the one hand, the financial sectors, particularly the banking sector of SEACEN economies have shown resilience in withstanding the worst of the GFC and emerging relatively unscathed, even while several developed countries' financial systems were decimated. In contrast to the 1997 East Asian financial crisis, the capital adequacy and liquidity positions of the banking sector of these economies remain above the Basel requirements, while non-performing loans have remained at low levels over the recent years.

On the other hand, the exports of SEACEN economies were severely affected in the immediate period (2008-2009) following the global financial meltdown. As SEACEN economies are largely trade-oriented in nature, the impact of the subprime crisis on Asian's real sectors came predominantly through trade channels. At the peak in 2009, the average ratio of total trade (export and import) to GDP in many SEACEN economies was well above 100 percent. For some SEACEN economies, the decline in exports was even more severe when compared to the 1997 Asian financial crisis. In fact, the rate of decline in global trade during the sub-prime crisis period has been more severe and more widespread than during the era of the Great Depression of the1930s.

The way the subprime crisis has impacted Asia's economies garnered strong support for the argument that in the longer-run to mitigate risks through the trade channel, Asia should strive to rebalance growth by placing greater reliance on domestic demand and the expansion of intra-regional export trade to engender sustained and resilient growth. The proponents of this view claim that this change in direction can be achieved over time through a higher growth rate of

consumption as well as investments in the domestic economy. In the face of this proposition, there has been a growing call for a revival of the subdued and even abandoned role of the central bank in promoting sustainable economic growth by providing an environment conducive to supporting the new areas of growth which would be generated from the rebalancing strategy.

The main objective of this high-level Conference was to bring together senior staff of SEACEN member central banks to discuss the future role of the central bank in supporting adjustments in the growth strategy for Asia in response to lessons from the GFC. The discussions were fruitful and the consensus appears to be to strengthen the traditional role of the central bank, to give greater prominence to macroprudential measures in their financial stability remit, and to facilitate new growth areas through financial inclusiveness and support for small and medium scale enterprises (SMEs).

SEACEN would like to take this opportunity to record its profound gratitude and appreciation to the Centre for Monetary Cooperation in Asia (CeMCoA) of the Bank of Japan for sponsoring this Conference and making available the services of Mr. Atsushi Takeuchi, Head of CeMCoA. SEACEN also thanks Mr. Lee Chee Sung, Assistant Director (IMF retired)/Advisor, Institute for Labour Market Information and Analysis (ILMIA), Malaysia, for his tremendous effort in assisting SEACEN in designing the Conference Programme, serving as resource speaker and editing this Volume.

The assistance of the BIS Representative Office for Asia and the Pacific, ASEAN+3 Macroeconomic Research Office (AMRO); Asian Development Bank Institute (ADBI), Bank Negara Malaysia and Bangko Sentral ng Pilipinas is gratefully acknowledged for making available as resource speakers the services of Dr. Aaron Mehrotra, Dr. Reza Y. Siregar, Dr. Giovanni Capanelli, Dr. Sukhdave Singh and Dr. Johnny Noe E. Ravalo, respectively. SEACEN thanks the distinguished resource persons for sharing their vast knowledge and experiences and contributing the papers for this Volume.

SEACEN is also grateful for the support of the member central banks and monetary authorities in nominating delegates for the Conference and thanks Dr. Solikin M. Junro of Bank Indonesia, Dr. Yang Su Park of Bank of Korea and Ms. Evelyn R. Santos of Bangko Sentral ng Pilpinas, for being panelists for the Panel Discussion. Lastly, the assistance of staff members of SEACEN's Research and Learning Contents Department is acknowledged for the completion of these proceedings.

The views expressed in these proceedings are those of the resource persons and panelists and do not necessarily reflect those of their respective institutions, SEACEN member central banks and monetary authorities or The SEACEN Centre.

November 2013

Hookyu RHU
Executive Director
The SEACEN Centre
Kuala Lumpur

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Executive Summary

The Conference Papers focused mainly on the central bank's role in promoting sustainable economic growth in the aftermath of the recent global financial crisis (GFC). One current area of discussions centers on the role of the central bank (CB) in promoting sustainable economic growth by providing an environment conducive to supporting the new areas of growth which would be generated from the rebalancing strategy. The papers here address this theme from several perspectives.

Dr. Aaron Mehrotra highlighted the success of the primary focus of CB policy on price stability before the GFC, and even during the years of recovery that followed. Financial imbalances in advanced countries and the experience of Asian economies were distinctly different. He reviewed the balance sheet effects of CB responses to GFC and connected this to the calls for possible changes in the Asian growth model.

CB balance sheet grew in response to policy measures to counter the GFC. But the balance sheets of emerging market CBs have already been growing even before the crisis, for very different reasons, i.e., from the increase in foreign exchange reserves as a buffer as well as in efforts to temper exchange rate volatility. This policy has also contributed to strains although there was some success in sterilisation of large capital inflows.

Financial imbalances took the form mostly of rapid growth in bank credit, but inflation remained under wraps. Inflation expectations remained within acceptable ranges even as CB balance sheets expanded. Moreover, inflation expectations did not become unanchored during the recovery despite widespread expansionary monetary measures. However, potential losses from valuation from the large holding of foreign exchange reserves pose a real risk.

The peaks in financial cycles are often found to correspond with financial crises. In managing the current crisis, questions remain about the effectiveness of macroprudential policies to deal with financial imbalances.

To redirect growth, he advocates reducing policy distortions that unduly favours the export sector. One implication for monetary policy if there is reduced reliance on trade in Asia in the future may be the need for less foreign exchange intervention and therefore slower accumulation of reserves.

Mr. Lee Chee Sung focused mainly on how Asian Central Banks and other authorities may benefit from considering the strategies used by developed country authorities to understand, address and then mitigate the impact of the disruptions on credit flows in banking and financial markets of their economies. He advocated the need for central banks to consider the commissioning of surveys to obtain time series data for securing a deeper understanding in the workings of credit markets in normal times and at times when markets are disrupted or when they exhibit exuberance.

Dr. Reza Y. Siregar describes the key features and characteristics of foreign bank lending in Asia in the aftermath of GFC and examines some policy challenges facing CB in managing these financial flows. The paper first reviews the factors driving international bank lending to Asia. It then examines the financial stability implications of such lending.

International banks (mostly from Europe) retrenched lending faster than domestic banks in the face of uncertainty and to support banking activity at their headquarters, with implications for Asian bank financial stability from deleveraging. Most of this pullback was reflected in withdrawal in exposure in the domestic banking sector.

Meanwhile, regional major Asian banking groups became net lenders to borrowers in Asia and the world. Potential challenges and risks from this recent activity is not been adequately addressed and information from these new activities remain inaccessible for independent analysis.

On bank balance sheets, foreign banks were found to hold lower capital relative to domestic Asian banks. Liquidity levels have remained adequate while profitability have been sustained and saw improvements in some jurisdictions, even as interest margins have narrowed.

The sustained fall in trade financing and project financing would begin to be of concern if deleveraging is prolonged. Asset prices, mostly real estate and equity, were affected but not to the extent of causing prolonged or debilitating dislocations in those markets.

As for the implication for monetary policy and management of bank risks, the challenge remains that of strengthening financial and banking supervision. Better integration of financial and banking supervisors, greater oversight of cross border activities, with emergence of regional Asian banks, and the need to expand the perimeter of supervision are areas for improvements. A good understanding

of the interconnectedness of domestic bank lending as well as their links to regional and global bank activities would also serve to support policy initiatives. Above all, ensuring the availability of data and information on Asian banking activities should underpin all these efforts. Cross-border implications for resolving distressed banks and other financial institutions also need to be better clarified. Ongoing discussions about whether to foster a branch or a subsidiary foreign bank structure remain to be concluded.

Finally, quantitative easing and other stimulus measures have led to monetary and exchange rate management challenges for Asia. There are serious issues related to competitiveness from exchange rate appreciation, and this has been compounded by increases in commodity prices – especially for food and petroleum products.

Dr. Sukhdave Singh discusses whether Asia needs a new growth model, by analysing the post-crisis environment faced by emerging market economies (EME) in Asia. The paper addresses the varied roles of the central bank in addition to its principal remit for managing monetary and financial stability. The issues faced by authorities in promoting financial sector development are raised and include the questions of inclusiveness as well as consumer protection and education as part of the central bank's role. The challenges faced by SMEs as drivers of the new growth areas are detailed and their importance is linked to the need for regional financial integration.

Dr. Giovanni Capanelli discusses the role central banks can play to promote long-term economic growth. Few CBs have explicit mandates to formulate policies in support of long-term economic growth. Most have broad mandates to foster macroeconomic stability, support the development of local financial markets, facilitate start-ups and SMEs development, and ensure financial inclusion. The paper identifies some concrete roles for central banks in ASEAN countries to support long-term economic growth.

An interesting perspective on long-term growth potential is provided based on ADB's Asia 2050 study and ADBI's ASEAN 2030 study. It discusses fruitful efforts in poverty reduction, reflected in increasing urbanisation and challenges from aging population, energy security and environmental preservation. Further progress in regional integration and intra-regional enhancement of the supply chain network to mitigate trade dislocation from Europe and North America is being sought. Regional interconnectivity and infrastructure development has received attention together with greater efforts in financial sector development and regional integration.

For Dr. Capanelli, the CBs role in support of long-term economic growth would largely remain as (i) ensuring macroeconomic stability; (ii) financing infrastructure projects; (iii) supporting financial market development; (iv) promoting financial inclusion; (v) facilitating small and medium sized enterprises; and (vi) financing green growth.

Dr. Johnny Noe E. Ravalo postulates that while global banking markets have gone through much change in recent years, even more substantive changes are to be expected. The question raised is whether reforms should be targeted only to those most affected jurisdictions where the financial crisis originated or also to those that suffered the consequences of crisis from contagion effects. A related question on reforms is the debate about where to set the prudential bar and standards rather than focusing the discussions more on the rationale behind the reforms. If there are specific agreements that standards must be strengthened to address current market dynamics of correlated consequences, then the debate would more productively return to how to formulate resolvable operational issues rather than the more abstract strategic principles of achieving financial stability.

While banks would bear the brunt of the forthcoming prudential adjustments to be made, it is equally important for the central banking and supervisory framework to evolve in tandem.

After a review of traditional central banking and monetary policy roles, the paper focuses on how CB might address financial stability, where Dr. Ravalo posits there is an absence of specific policy objectives, the even more intractable problem of a lack of concrete policy tools and incipiently evolving best practice guidelines. Macro-prudential risks themselves are nothing new, the issue is have there been "new risks" that have not been identified or considered.

How to organise and structure central banking and supervisory functions to maximise financial stability is a key part of reform efforts. He advocates a shift towards a holistic-and-functionally-nonseparable manner for managing prudential issues. Among the elements is changing the way information and risk are managed. For example, balance sheets present reports on the outstanding balances of accounts but neither the transactions underlying the accounts nor the relationships between the transactions are explained or adequately understood. These may well be the sources of financial stability risks and disruptions. A good and adequate understanding of what constitute systemic risks is also required.

Dr. Ravalo refers to the importance of distinguishing the boundaries between the new macro-prudential oversight and the old micro-prudential-based standards. For this, he suggests that the use of the traditional portfolio approach would be a beneficial guiding tool.

At the Panel Discussions, **Mr. Atsushi Takeuchi** spoke about the principal role played by the Bank of Japan (BoJ), to revive growth and reverse the deflationary environment experienced over the last few decades. The recent GFC was just another challenge Japan faced to return to sustainable growth. Many of the problems faced by Japan are also now present in Asia and thus the search for a sustainable growth model could draw lessons from Japan. Japan has faced an imbalance in economic growth, with large reliance on trade while widening wealth and inequity were also problematical. Population aging is making the attainment of sustainable growth more difficult as labour productivity remains sluggish. Japan must also address fiscal sustainability issues with the growth challenges, especially as the national debt remains at an elevated level. Structural changes in the labour market will also have a major influence in growth enhancing policies, as the female labour force participation rate remains relatively low. Moreover, non-regular workers have grown steadily to represent some one-third of the workforce, which may pose potential social problems.

BoJ has already been engaging in non-traditional monetary and financial policies even before the GFC. It has been conducting comprehensive monetary easing, including a virtually zero interest programme and provided substantial loan support to the economy, incorporating growth facilitating funding.

Dr. Solikin M. Juhro is of the view that one lesson to be drawn from the recent crisis is that the cause may be rooted in real sector problems and not solely from disruptions in financial behaviour. Consequently, the CB needs to better integrate monetary policies with other macroeconomic policies and play a larger strategic role as an agent in achieving sustainable growth. He believes that the policy configuration to strike the proper balance in internal and external growth impulses can be done by integrating the monetary and financial system stability framework.

After reviewing some policy challenges faced by Indonesia and key strategies to maintain sustainable economic growth, he presents Bank Indonesia's policy framework as a combination of monetary and financial stability measures to attain sustainable growth. Specifically, monetary and macroprudential policies

are to be directed to manage the external balance while providing support to the development of the domestic economy.

Dr. Park, Yang Su asserted that Korea's export-oriented growth strategy, supported by good productivity in tradable goods and an entrenched current account surplus have allowed the economy to weather the GFC well. However, the side-effects from this strategy are also of concern going forward. These limitations are taking the form of a surge in household indebtedness, deterioration in income equality, and the weakening of the linkage of growth to employment and higher income generation. In addition, the rising demographic problem from aging is giving rise to issues about the growth of potential output and fiscal soundness or sustainability in the medium- to longer-term. Korea is now ready to shift its strategy for growth towards rebalancing the future development of the external and domestics sectors. To increase potential growth, it would be advantageous to seek long-term industrial competitiveness and improve the level of technology employed in the production and development of new products. Social expenditures for the poor and the aged must be raised, to keep income inequality from worsening, and efforts need to be made in the medium- and long-term to ensure that educational opportunities are given equally to all income groups.

Ms. Evelyn R. Santos advocated an approach which calls for a continued focus on strengthening domestic demand and building up buffers against external shocks. The economy should gradually rely more on domestic demand as a driver of growth, whether through an accommodative monetary policy stance or through prudent fiscal spending and supported by structural reforms. With reliance on traditional external trade linkages expected to persist, it would be necessary to diversify exports and widen into other non-traditional markets. It is stated that emerging economies have substantial policy space for stimulating growth in the short-run with generally stronger public finances and adequately contained inflationary pressures compared to the situation in the advanced economies. Structural reforms that promote domestic demand will help in diversifying the sources of growth and also make growth sustainable. There is evidence to suggest that as long as there is sufficient domestic demand, the economy can attain sustainable growth by expanding industrial economic activities. Bangko Sentral ng Pilipinas has put in place measures to assist the export industry, including those intended to increase access by the export sector to financing. These include rediscount facilities for exporters, contributions to the Export Promotion Fund to provide supplemental financing for the promotion and

development of Philippine exports, establishment of the Credit Surety Funds which aims to increase the credit worthiness of small exporters experiencing difficulty in obtaining loans from banks and promoting the use of hedging products to reduce foreign exchange risks, through insurance and protection products.

SESSION 1

LESSONS FROM THE GLOBAL FINANCIAL CRISIS FOR CENTRAL BANKS – ARE THERE IMPLICATIONS FOR A NEW ASIAN GROWTH MODEL?[1]

By
Aaron Mehrotra[2]

1. Introduction

The recovery from the worst financial crisis in the advanced economies since the global disruptions of 2008 has been painstakingly slow. This has occurred despite the fact that central banks across the globe provided monetary expansion rapidly and in a large scale in response to the crisis. Unconventional policies have been in place in major advanced economies since late 2008, with nominal policy interest rates close to or at the zero interest rate floor. Monetary policy has arguably become overstretched in some economies, and there are questions regarding the benefits of extending the various unconventional measures. Not surprisingly, in the sphere of monetary policy, the lessons from the crisis have been intensely discussed (see e.g. Cecchetti ,2011; Shirakawa, 2012 for recent speeches on the topic).

This short paper documents some of these lessons, while putting emphasis on the recent experience of emerging Asia. Some of the lessons extend beyond the crisis itself, including the consequences of central bank balance sheet expansion that started well before the crisis in the region. The paper argues that central banks in emerging economies should be vigilant at the current juncture, lest similar dynamics to those of advanced economies prior to the financial crisis are repeated. Finally, the paper discusses some implications of propositions that Asia should move away from export-driven growth to an economy fuelled by domestic demand.

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1. This paper is based on the remarks delivered at the *SEACEN-CeMCoA/BOJ High-level Seminar on Finding Asia's New Sustainable Growth Model Post GFC: The Role of the Central Banks*. Some of the graphs have been previously published in various BIS publications and are only updated here. All views are those of the author and do not necessarily reflect those of the BIS. I am grateful to Bilyana Bogdanova and Lillie Lam for excellent research assistance and to James Yetman for helpful comments and discussions.

2. Senior Economist, Representative Office for Asia and the Pacific, Bank for International Settlements.

The structure of the paper is as follows. Section 2 discusses the lessons from the crisis regarding the primary importance of price stability. This is followed in Section 3 by a discussion of the financial imbalances that were building up before the crisis in the advanced economies, mentioning the recent developments in emerging Asia. Section 4 deals with balance sheet policies. Section 5 draws links to the discussion regarding a possible change in the regional growth model. Section 6 provides short concluding remarks.

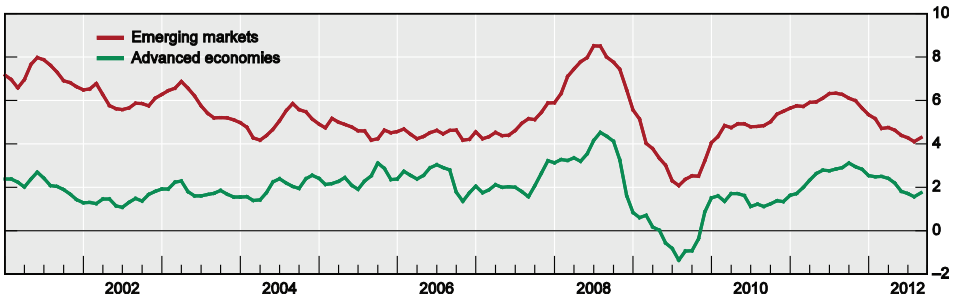
2. Importance of Price Stability

Before the international financial crisis, there was widespread agreement among central bankers and academics that price stability was the primary objective of monetary policy. Inflation targeting frameworks had been successfully adopted in many advanced and emerging market economies and, even in those economies where no explicit inflation targeting framework was in place, the importance of price stability was recognised and incorporated in various ways in the policy frameworks. There is no doubt that price stability was indeed delivered (Graph 1). Moreover, despite the rapid increase in commodity prices prior to the financial crisis, headline inflation expectations in the inflation targeting economies did not become unanchored (Lavigneet et al., 2012).

The outcome of low and stable inflation was not only due to good policy. Globalisation is a factor that likely contributed to low inflation globally prior to the crisis. Some of the relevant channels included lower import prices in the advanced economies; and the competition from low wage emerging economies that reduced price and wage setting power in the advanced economies.[3] But along with such factors, appropriately calibrated policy and improvements in policy frameworks certainly played a role, given the monetary nature of inflation in the long run.

3. For empirical evidence on the importance of low wage competition for inflation, see e.g., Auer and Fischer, 2010; for theoretical arguments about the impact of emerging economy shocks on inflation in the advanced economies, see e.g., Lipiñska and Millard, 2012.

Graph 1
Headline Inflation[1](Year-on-year percentage changes)



[1] Aggregates based on 2005 GDP and PPP exchange rates of the countries listed. Emerging markets: Argentina, Brazil, Chile, China, Colombia, Czech Republic, Hong Kong SAR, Hungary, India, Indonesia, Korea, Malaysia, Mexico, Peru, Philippines, Poland, Russia, Saudi Arabia, Singapore, South Africa, Thailand and Turkey. Advanced economies: euro area, Japan, United Kingdom and United States.

Sources: Bloomberg; Datastream; National Data.

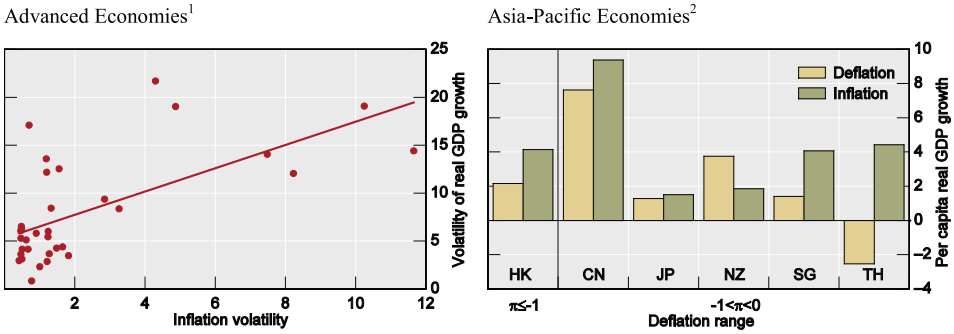
Similarly, when the international financial crisis hit, price stability was delivered. In particular, central banks provided monetary expansion rapidly, and in a large scale to avoid the formation of deflationary spirals. Price levels did decline in many economies, but the deflationary spells were generally brief, and limited to the 2008-09 period. At the same time, despite the large monetary expansion and ballooning central bank balance sheets, inflation expectations have not become unanchored during the recovery.

An obvious question is whether the focus on price stability was misplaced, given the severity of the crisis that occurred despite the success in inflation stabilisation. Most empirical evidence suggests that price stability delivers real benefits. Khan and Senhadji (2001) suggest that growth rates start to decline in industrial countries when inflation rates surpass 1-3%.[4] The channels through which inflation affects welfare are well documented (e.g., Rodríguez Palenzuela et al., 2003). The left-hand panel of Graph 2 reflects the real costs of inflation, by showing a positive correlation between inflation and output volatility, which prevailed even in an environment of generally low inflation rates in the advanced economies. Of course, causality could run from output to inflation, as larger and

4. See also Barro (1995).

more volatile output gaps could put upward pressure on inflation and increase its volatility. But both are costly; the theoretical literature on monetary policy typically postulates the central bank's loss function as depending quadratically on deviations of actual output from potential and inflation from the target (e.g. Woodford, 2003).

Graph 2
Inflation, Deflation and Growth



[1] Volatility as measured by the variance of annual inflation and growth in real GDP over the period 2000 – 2011. The advanced economies shown are as defined in IMF *World Economic Outlook* Database. Estonia is excluded. [2] Median annual per capita real GDP growth during years of inflation and deflation over the period 1995 – 2011; in per cent. Deflation ranges have been derived from median deflation over years of deflation. The group of ACC economies comprises Australia, China, Hong Kong SAR, India, Indonesia, Japan, Korea, Malaysia, New Zealand, the Philippines, Singapore and Thailand.

Sources: IMF, *World Economic Outlook*.

The costs of deflation are similarly well established in the literature.[5] The right-hand panel of Graph 2 compares growth rates during years of deflation and inflation in the Asia-Pacific region for those economies that experienced at least one year of deflation during 1995-2011, based on annual data.[6] The years of deflation are in most cases associated with lower growth rates than those with positive inflation rates, despite the fact that deflation has generally been mild. For Hong Kong, China and Singapore, the difference in median growth rates of deflation and inflation years is roughly 2 percentage points – for Thailand

5. Baig (2003) discusses these costs in the context of Japan's deflationary episode.

6. The Asia-Pacific economies considered in this paper are Australia, China, Hong Kong SAR, India, Indonesia, Japan, Korea, Malaysia, New Zealand, the Philippines, Singapore and Thailand. Therefore, our sample includes both advanced and emerging economies.

over 6 percentage points. This is in line with the observation by Bernanke (2002) that deflation is generally associated with a collapse in aggregate demand. The Japanese experience with persistent deflation at near-zero interest rates since 1995 also highlights the challenges for monetary policy to stimulate a deflationary economy once the policy leeway has become limited. In sum, the costs of high inflation and deflation have not disappeared, and on this basis the emphasis placed on price stability was not misplaced.

3. The Rise of Financial Imbalances

Despite the success with stabilising inflation, financial imbalances were building up in many advanced economies prior to the crisis, mostly in the form of excessive credit growth. The large build-up of credit and increase in property prices was in most cases not reflected in headline inflation rates. As there were no generalised inflation pressures, there was no immediate reason for central banks to increase interest rates, at least if their policy horizon was relatively short. It did not help that monetary and credit aggregates were, especially in much of formal modelling of monetary policy, not thought to contain information above and beyond that included in interest rates only.

Recent work by Drehmann et al. (2012) characterise the nature of financial cycles – as opposed to business cycles – the former are defined as the medium-term component of the joint movement of credit growth and property prices. In this line of research, the peaks in financial cycles are often found to correspond with financial crises. This emphasises the importance for policymakers to track such developments and to tighten policy sufficiently during financial cycle upturns. An additional challenge is that credit booms may distort estimates of potential output, making it difficult for central banks to correctly identify the extent of available slack in the economy (see BIS, 2012, Chapter 5).

Interest rates are sometimes thought to be insufficient instruments for reacting to financial booms, due to the destabilising impact that very large interest rate movements could have on the real economy. But the level of interest rates arguably does matter, by setting the price of leverage. And the setting of interest rates can be complemented by macroprudential measures to address asset price and credit booms.[7]

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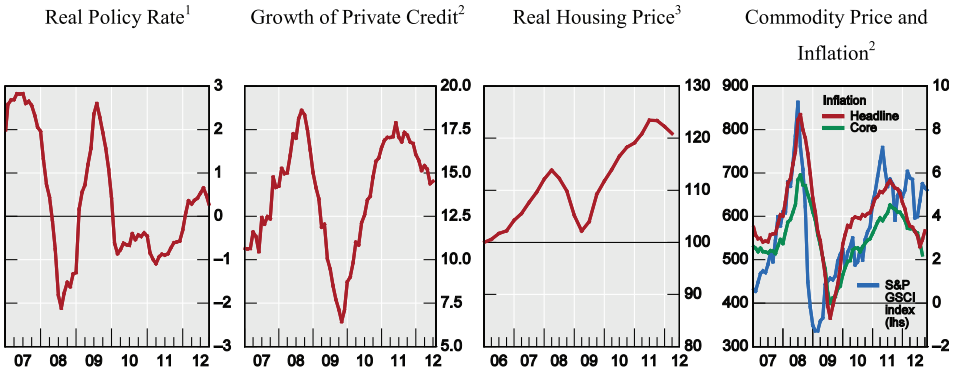
7. See Caruana, 2012, about the contribution of macroprudential policies for dealing with financial instability.

The experience of advanced economies prior to the crisis advocates prudence in some emerging economies that have experienced strong credit growth and rapid increases in housing prices in the recent past. Graph 3 shows recent developments in Asia, set against the backdrop of very low or negative real interest rates in 2010-11, when the recovery in the region was robust (first panel). Headline inflation rates did rise at the time, but only moderately (fourth panel).The inflation record has varied between the different economies in the Asia-Pacific region, and has been affected by commodity price developments.

Graph 3
Monetary Policy, Credit Growth, Housing Prices and Inflation in Asia
(In percent)



[1] Policy target rates or their proxies corrected by forward- and backward-looking inflation components (equally weighted 12-month backward-looking CPI inflation and 12-month forward-looking consensus expectations); average of China, Hong Kong SAR, India, Indonesia, Korea, Malaysia, the Philippines and Thailand. [2] Annual change; average of China, Hong Kong SAR, India, Indonesia, Korea, Malaysia, the Philippines, Singapore and Thailand. [3] End 2005 = 100; average of China (three tier-one cities), Hong Kong SAR, Indonesia, Korea, Malaysia and Singapore

Source: IMF, *International Financial Statistics*; Bloomberg; CEIC; national data.

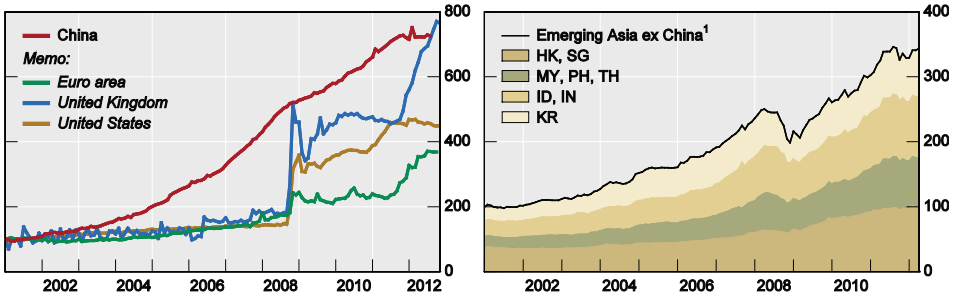
Admittedly, the level of interest rates alone does not yield an accurate description of the monetary policy stance in the region. Non-policy rate instruments, such as reserve requirements, have been intensively used in many economies. Filardo (2012) highlights the importance of tail risks associated with a fragile global economy in the setting of monetary policy in the region. The various policy instruments, complemented by macroprudential tools and weakening

economic outlook, have already prompted the housing price and credit cycles to take a turn in emerging Asia (second and third panels). But questions remain about the effectiveness of macroprudential policies to deal with financial imbalances, and their ability to deal with broader aggregate demand fluctuations is limited by their targeted nature. This again emphasises the importance of maintaining an appropriate level of interest rates in order to avoid the buildup of financial imbalances with potential impacts on the output gap and headline inflation over longer horizons.

4. Central Bank Balance Sheet Expansion

An important feature of the policy response to the international financial crisis was an expansion in central bank balance sheets globally, even if the dynamics differed between advanced and emerging economies. Whereas in the advanced economies balance sheets expanded rapidly after the financial crisis hit, in emerging markets the build-up was much more gradual and started well before the crisis, as illustrated by Graph 4.

Graph 4
Central Bank Total Assets(2001 = 100)



HK = Hong Kong SAR; ID = Indonesia; IN = India; KR = Korea; MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand.
[1] Sum of listed economies.

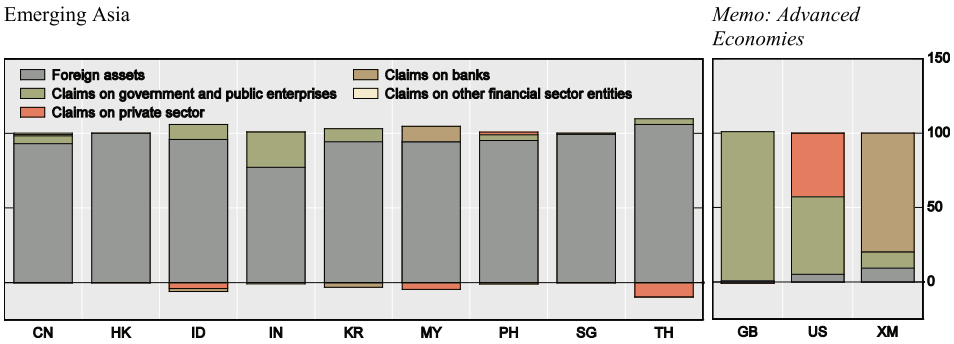
Sources: IMF *International Financial Statistics*; CEIC; Datastream; National Data.

The underlying reasons for the balance sheet expansion differed as well. Advanced economies increased their balance sheets to provide monetary expansion in an environment of close to zero interest rates by purchasing domestic assets, be they claims on banks (as in the euro area), on the public sector (as

in the UK) or a combination of private and the public sector (as in the case of the US; Graph 5). In emerging markets, the gradual increase predominantly reflected the accumulation of foreign assets in the form of FX reserve accumulation. After the Asian crisis, precautionary motives were important determinants of reserve accumulation, as central banks wanted to provide assurance to markets that their exchange rate regimes are stable and could be defended in the face of depreciation pressures. But as time passed, the reserve expansion also likely reflected the aim of avoiding excessive exchange rate appreciation.

Graph 5
Change in Composition of Central Bank Assets in Emerging Asia, 2002–Jun 2012[1]

(As a percentage of change in total assets)



CN = China; GB = United Kingdom; HK = Hong Kong SAR; ID = Indonesia; IN = India; KR = Korea; MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand; US = United States; XM = euro area.

[1] As of Dec 2011 for Philippines; Jun 2012 for Others.

Source: IMF International Financial Statistics.

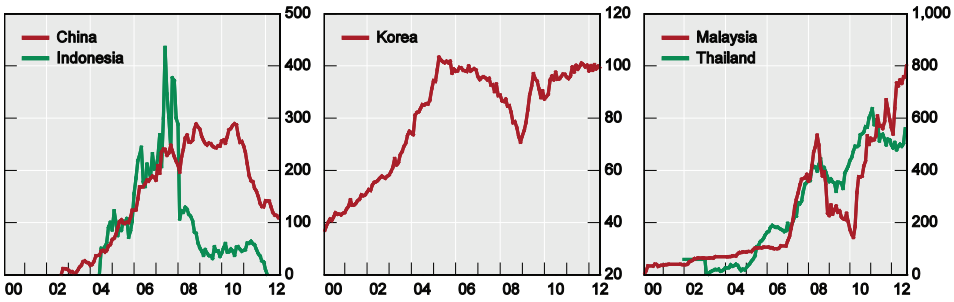
Has balance sheet expansion delivered the desired effects? While research suggests that unconventional policies in advanced economies were effective in lowering yields (see e.g., Meaning and Zhu, 2012), sustained monetary expansion in the advanced economies is probably associated with decreasing marginal benefits. A prolonged low interest rate environment could also delay necessary adjustments in private and public sector balance sheets (see BIS, 2012, Chapter 4). Another issue relates to the international implications of these policies. Chen et al. (2012) find that US quantitative easing reduced emerging Asian bond yields,

increased equity and commodity prices and caused appreciation pressures on the bilateral exchange rates against the US dollar. Yet, to the extent that in steady state, emerging economy policy interest rates are higher than those in advanced economies, capital inflows to emerging economies are likely to persist over long horizons. These inflows could have desirable consequences, such as providing financing for investment that supports long-run sustainable growth.

As regards reserve accumulation in emerging markets, the policies certainly yielded benefits during the international financial crisis, as central banks had significant scope to run down their assets when their currencies came under pressure. And despite the increase in liabilities, there is little evidence that the balance sheet expansion has led to an increase in inflation expectations so far. Yet, it may be too early to argue that foreign reserve accumulation does not have implications for monetary stability. Emerging Asian central banks have been increasingly using their own securities for sterilisation (Graph 6). The liquid nature of central bank securities and the fact that these are typically held by commercial banks could do little to restrain lending in the economy, especially during boom periods. This implies that sterilisation may become increasingly incomplete over time.

Graph 6

Outstanding Stock of Central Bank Securities (2005=100)



Sources: IMF International Financial Statistics; CEIC.

In addition to the potential longer-term implications for monetary stability, large-scale reserve accumulation is costly. These costs stem from valuation effects – as the domestic currency appreciates, the value of FX reserves measured in domestic currency fall – and from carrying costs of sterilised intervention. Such considerations imply that while large reserves served the Asian economies well during crisis times, policies to limit exchange rate appreciation

have costs that need to be borne in mind when considering the overall policy mix.

5. Towards a New Asian Growth Model?

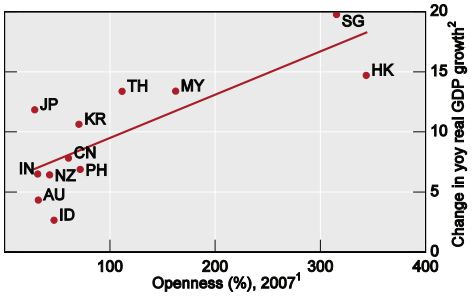
Given the experience from the financial crisis, where Asian economies were predominantly impacted through the trade channel, there have been arguments that Asia should move towards a more "sustainable" growth model driven increasingly by domestic demand. The new model could also foresee a more important role for intraregional trade within Asia, and possibly contribute to a reduction in global imbalances.

It is certainly difficult for small open economies to escape large international shocks, be they positive or negative in nature. Graph 7, left-hand panel, shows a positive correlation between economic openness and the impact of the international financial crisis in the Asia-Pacific economies, measured by the fall in GDP growth rates during the crisis.[8] However, it is not the case that a higher reliance on exports to emerging Asia would have better shielded the regional economies from the crisis, as shown in the right-hand panel. This is not surprising, given that a large share of the end demand for goods traded within the emerging Asian manufacturing chains is in the advanced economies. This highlights the importance of generating end demand in the Asian economies themselves.

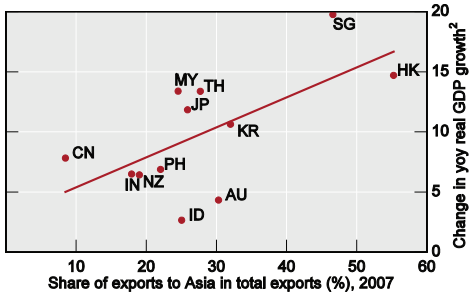
8. Yet, it is an open question whether domestic and regional shocks would be smaller in magnitude and less frequent than international shocks operating through the trade channel in the long run.

Graph 7
Openness, Trade with Asia and Impact of Financial Crisis

Impact and openness[1]



Impact and share of exports to Asia



AU = Australia; CN = China; HK = Hong Kong SAR; ID = Indonesia; IN = India; JP = Japan; KR = Korea; MY = Malaysia; NZ = New Zealand; PH = Philippines; SG = Singapore; TH = Thailand.

[1] Openness is defined as the ratio of total goods exports and imports to GDP. [2] Changes from peak to trough in the period 2007 – 2009, in percentage points.

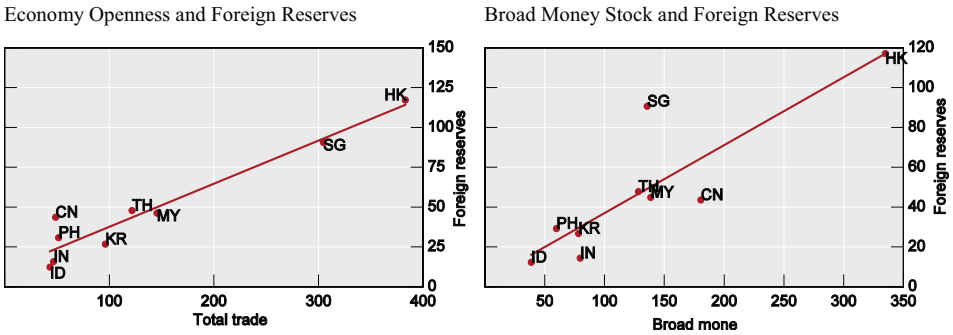
Sources: CEIC; IMF; National Data.

These considerations do not imply that small economies should rely solely on their domestic markets for growth – the benefits from international specialisation and the small size of domestic markets dictates that small economies are typically small, *open*, economies in nature. But it does make a case for removing policy distortions that favour the export-oriented sector over other sectors of the economy. A related matter is that, given the necessary balance sheet adjustment and uncertainties related to sovereign debt levels in many advanced economies, the demand for exports from Asia from outside of the region is likely to be persistently weaker than prior to the crisis.

What would a possible new growth model with an increased role for domestic demand mean for monetary policy in the region going forward? While the ultimate objectives of monetary policy are unlikely to change, exchange rate policy and foreign reserve accumulation could be affected. Graph 8 shows a positive correlation between the stock of FX reserves to GDP and economic openness, and reserves and a measure of financial deepening, respectively.

Graph 8
Openness, Financial Deepening and FX Reserves

(As a percentage of GDP; 2011)\



CN = China; HK = Hong Kong SAR; ID = Indonesia; IN = India; KR = Korea; MY = Malaysia; PH = Philippines; SG = Singapore; TH = Thailand.

Sources: IMF International Financial Statistics; IMF World Economic Outlook; CEIC.

If some of the foreign reserve accumulation is related to concerns about excessive exchange rate appreciation, partly driven by the desire to maintain external competitiveness, then it is indeed plausible that reserves are greater in the more open economies (left-hand panel). A reduced share of trade in GDP could then lead to less active FX intervention policies and a reduction in foreign exchange reserves, *ceteris paribus*.

Reduced dependence on trade alone may not be sufficient to change reserve accumulation behaviour, should financial stability motives of reserve accumulation remain important. Financial deepening has been suggested as leading to increased reserve accumulation, as domestic agents may wish to convert their savings to foreign currency in the event of the crisis (see Obstfeld et al., 2010). A positive correlation between FX reserves and the size of the broad money stock does seem to hold in the Asia-Pacific region as well (right-hand panel). But, as Filardo and Grenville (2012) point out, even in the worst of crises, not all those holding domestic currency have sought to convert their holdings into foreign currency. This implies a need to carefully weigh the benefits and costs of large-scale reserve accumulation.

6. Conclusion

This short paper has documented some of the lessons from the international financial crisis for central banks. It has argued that, given the documented benefits of price stability, the emphasis on the inflation objective prior to the crisis was not misplaced. But the build-up of financial imbalances needs to be taken into account in the appropriate calibration of monetary policy. The paper has also documented the central bank balance sheet expansion that started well before the crisis in the case of emerging economies. Large-scale reserve accumulation is likely to be costly, even if domestic monetary developments were successfully insulated from intervention in the foreign exchange markets. Should the growth model in emerging Asia change to one less dependent on external demand, the extent of activism in terms of exchange rate policy and foreign reserve accumulation may be reduced over time.

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SESSION 2

BANK CREDIT DEVELOPMENTS IN SEACEN AND OTHER ASIAN ECONOMIES

By
Lee Chee Sung[1]

The main purpose of this paper is to examine the issues surrounding the impact on credit flows in Asia from the 2008-09 global financial crisis (GFS). In particular, the focus will be on how Asian Central Banks and other authorities may benefit from considering the strategies used by developed country authorities to understand, address and then mitigate the impact of the disruptions on credit flows in banking and financial markets of their economies. An important question to clarify in this respect is to better determine if credit disruptions stemmed from supply-side or from demand-side impulses. It is clear that the policy responses the authorities deploy would largely differ depending upon which supply or demand factors are prevalent and responsible for the problems caused. In this manner, there will be an additional dimension to consider in addressing the role for a central bank in efforts to nurture new sustainable growth areas.

Section 1 provides the background within which the context of credit developments in SEACEN and Asia following the GFC may be viewed. Section 2 that follows discusses the broad policy responses of developed countries and the emerging economies to the GFC disruptions. Some issues (Section 3) concerning the policy responses are then discussed. Section 4 then presents several lessons to draw from analysis of credit markets undertaken in disparate developed countries, which should be emulated by SEACEN economies.

1. Background

The US subprime loans disruption has been blamed for triggering the global financial crisis which followed. The effects of the GFC can be depicted by sharp fall in bank credits, which were felt worldwide. Like in other regions, the dislocation in Asian credit markets was considerable but fortunately not as severe

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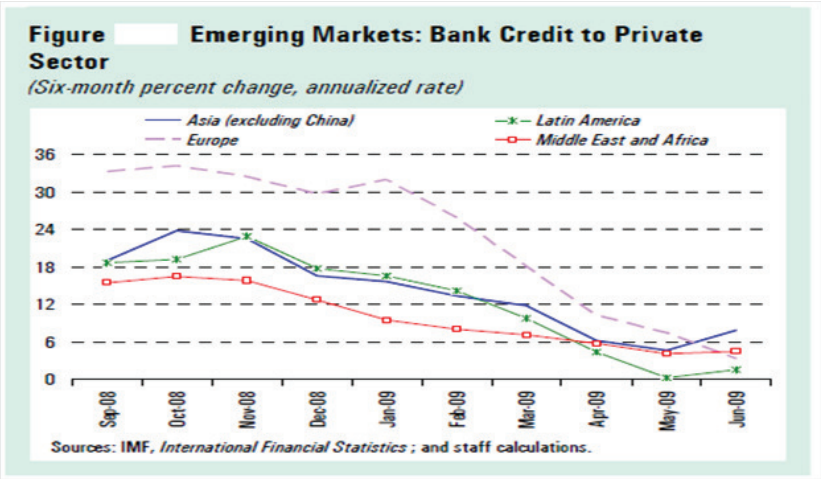
as those suffered by others. As can be seen in Figure 1, the negative effects beginning around mid-2008 had already begun to taper off for Asia by the first quarter of 2009. Financial conditions then began to turn around for Asia by mid-2009, reflecting for the most part the strong and active countervailing policies implemented by Asian authorities.

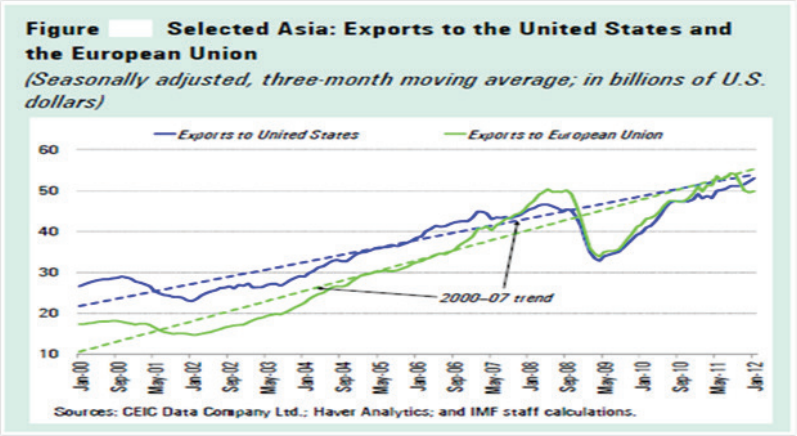
However, the impact of the GFC as reflected in a sharp decline in Asian economic performance was most acutely felt and transmitted through the trade channel, compounded by the drop in credit flows discussed above. Figure 2 shows the precipitous plunge in Asian exports to both European and US markets in 2008. Asian exports to these two major markets did not recover to their long term trends until 2011-2012. Exports to Europe approached the long-term trend mark by early 2011, but the turmoil from debt and fiscal sustainability problems surrounding Greece and other southern EU member countries, caused the trajectory of exports to Europe to turn downwards again in 2012. On the other hand, exports to the US have seen steady revival and returned to its long-term trend by the beginning of 2012.

Figure 1
Emerging Markets: Bank Credit to Private Sector



Note: Extracted from "Regional Economic Outlook, Asia and Pacific, Oct. 2009, IMF," Page 20.

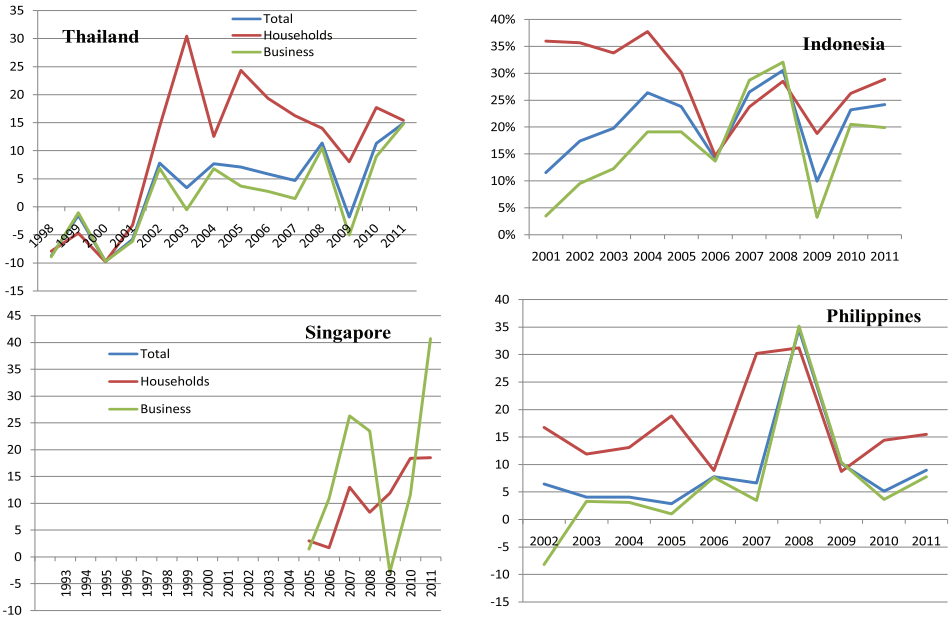
Figure 2
Selected Asia: Exports to the United States and the European Union



Note: Extracted from "Regional Economic Outlook, Asia and Pacific, April 2012, IMF," Page 1.

This trajectory of Asian exports over the period 2008 to 2012 appears to be similar to that for bank credit in most SEACEN economies. In tandem with the fall in growth rates, exports and external credit flows in SEACEN member economies, domestic bank credit also fell sharply beginning in mid-2008 as depicted in Figures 3 and 4 for selected SEACEN economies. In many of the SEACEN economies, the fall in bank credit was felt most by the business sectors, as the growth outlook weakened considerably. It was reported that bank loans to SMEs suffered the brunt of the cutbacks, which is not surprising considering that SMEs account for a large part of economic activity in many of the SEACEN economies.

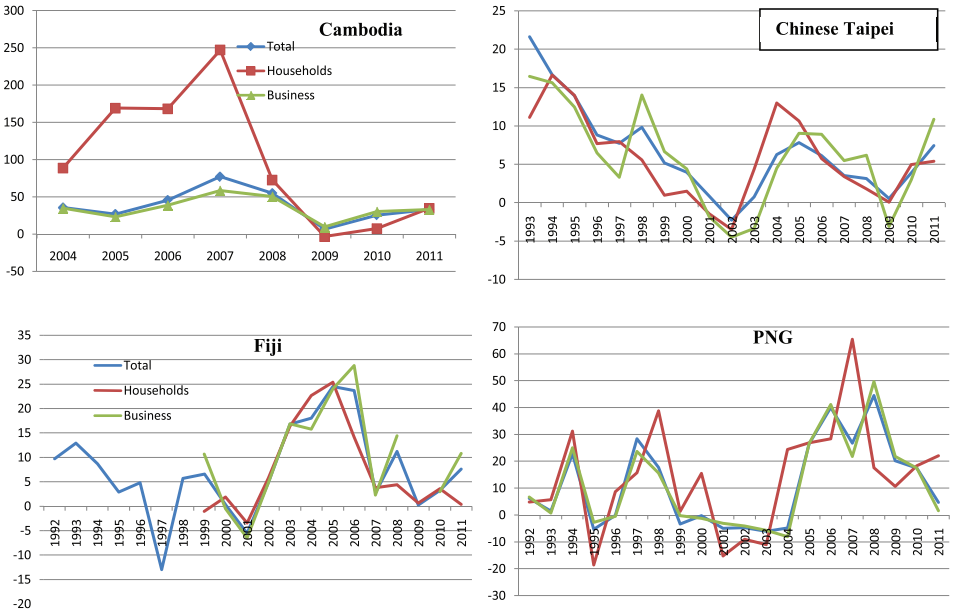
Figure 3
Credit Growth in Selected SEACEN Economies (%)



Source: Monetary Authorities of the respective economies.

Unlike in other regions of the world, the negative economic impact from the GFC in Asia proved to be rather short lived. This turnaround was clearly reflected both in the recovery of Asian export performance (Figure 2) and more forcefully in a sharp resumption in bank credit growth. Once again bank credit to the business sector which had previously plunged precipitously, showed a strong recovery. In considering the new growth areas post GFC it will be useful to understand the impact of bank credit volatility on the performance of SMEs, which will be the principal drivers of growth in the future.

Figure 4
Credit Growth in Selected SEACEN Economies (%)



Source: Monetary Authorities of the respective economies.

2. Policy Responses of the Monetary Authorities

The strong policy actions taken by country authorities in the face of the GFC restored some semblance of external stability. This recovery was bolstered by close international cooperation and coordination in policy implementation, led by the G-20 and multi-lateral institutions like the IMF. In Asia, the efforts at fiscal and monetary stimulus to restore macroeconomic vitality were no less relentless. Some analysts believe that the response of Asian countries this time around is in sharp contrast to previous behaviour, which tended in the past to be more cautious. Many Asian economies had previously feared that countercyclical policies may exacerbate capital outflows and may compound further losses in confidence about economic management. But unlike in the past, the GFC has been felt worldwide and Asia is now in better shape economically to forcefully adopt credible countercyclical policies.

Moreover, many Asian countries had the benefits of ample fiscal space to afford the expansionary policies. The fiscal buffers had been accumulated from lessons drawn from the Asian crisis experienced in the previous decade. On the monetary front, Asian countries actively provided liquidity to the banking system

in tandem with the central banks of the developed countries, but not quite in the similar league in terms of the scale and ground breaking depth of the supporting measures of these deeply troubled industrialised economies. The interventions of Asian central banks were more measured unlike the several packages of "Quantitative Easing" of the US Federal Reserve and the large and sustained asset purchases of the Bank of England and the European Central Bank.

An array of tools was successfully brought into play by Asian central banks to support the banking sector which contributed to reversing the downward trend in economic growth. In addition to liquidity support, key policy interest rates were lowered considerably together with reductions in bank reserve requirements. Special measures were also adopted to support the banking and financial markets. Some Asian countries expanded the coverage of deposit guarantee schemes and provided special credit lines to SMEs and widened the scope of guarantees of bank and trade credits. Reflecting the broadening of international cooperation and policy coordination, several Asian countries were able to establish foreign currency swap facilities with the US Federal Reserve as well as between each other's central banks. The ASEAN+3 reserve pooling mechanism was expanded and funding available to participating members was further augmented.[2]

The revival in bank credit flows and economic growth has also been attributed to two important factors; the health of the corporate sector and the stronger capital position of Asian banks. Relative to the Asian Crisis in the 1990s and the position of firms in Europe and the US, the corporate sector this time in Asia was in much better financial shape. Drawing in part from lessons from the severe disruptions experienced during the Asian Crisis the corporate sector has mostly successfully weaned itself from excessive leverage and reliance on bank debt financing. This has allowed it to secure better cash flow from reduced debt servicing outlays and thereby boosting profitability and investment returns. With better economic and business fundamentals, enterprises in Asia were able to secure the resumption of bank credit stemming from their lower default risks when external economic conditions stabilised. While large firms benefited from this undercurrent, the same cannot be said about the SME fortunes. But as indicated above, the authorities recognised this and thereby acted by placing special emphasis to supporting SME revival and development, in line with the belief that SMEs would be the new area for growth impulses in Asia.

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2. The details of the specific monetary measures are not discussed here as they have been provided in the other papers of this Seminar.

At the same time, banks in Asia were also in a better position to quickly return lending operations to normalcy after the financial disruptions from the GFC eased and stability returned. Banks in Asia for the most part did not rely excessively on cross-border interbank lending or on wholesale funding in their operations, unlike in the build-up to the Asian Crisis or the situation experienced by banks in Europe and the US. Moreover, Asian banks had better capital positions and low NPLs, which is a positive legacy from the dislocations suffered from the previous crisis. Asian banks exercised restraint in the acquisition of the toxic assets that precipitated the GFC, not only because of prudence but also because supervisory authorities and the banks did not as yet fully understand the newly engineered financial products, which with hindsight probably worked to everyone's advantage. Asian banks did not encounter many problems in raising capital in response to the GFC and were thus able to further augment buffers to support renewed lending capabilities.

3. Issues Associated with the Policy Responses to the GFC

While the strong policy responses in Asia have led to a revival in economic growth and resumption in bank credit to the economy, the ensuing side-effects from these policies would also now need to be addressed. The downside risks to sustaining the recovery will not only be subject to the strength and sustainability of the economic turnaround in the export markets of Asia and world financial conditions, but also the effects from the success of the countercyclical policies adopted. In effect, the full story behind the efforts to overcome the negative impact of the GFC on Asian economies has not been completed.

In the near future, Asian countries are likely to face further rounds of financial disturbances when the stimulus policies are withdrawn and a return to normal conditions is achieved. But there is still uncertainty as to what this "new normal" will be. Asian countries will need to exercise prudence in exiting and withdrawing from the monetary and fiscal stimulus gradually over time that they themselves have adopted. However, more importantly in the current environment, they also have the challenge of managing the fallout from the policy stimulus of developed countries in support of restoring economic growth. This challenge will be further compounded when developed countries begin to unwind from these stimulus policies. If the exit from these policies is not well coordinated or if market actors react unfavourably to the end of such policies, it may cause unforeseen stability problems for emerging market authorities. There is a high risk that the market may not act predictably, largely because of the novelty of the exceptional and unconventional measures adopted, and thus the market has no precedence with which to fall back on.

In the current environment, expansionary policies in developed countries are putting pressure on several fronts for emerging economies, especially those in Asia. Financial markets are flush with liquidity from the expansionary monetary stimulus, deleveraging by developed country banks and the continued reluctance to extend sufficient bank credit to business. This liquidity is flowing largely to emerging Asian economies in search of better yields and borrowers with stronger economic prospects and lower default risks. Large capital flows are posing serious challenges for Asian central banks. While greater flexibility in managing the exchange rate has helped in mitigating large capital flows, sustained appreciation in the exchange rate is starting to affect the competitiveness of key growth sectors in Asia's economies.

There are limits to the capability of central banks in intervening in the foreign exchange markets to smooth exchange rate volatility and influence the pace of appreciation of the currency. Furthermore, many Asian central banks have already previously accumulated a substantial hoard of foreign currency reserves as insurance against reversal in capital flows and investor sentiments. This again is the legacy of drawing lessons from the Asian Crisis of the 1990s. As a consequence, Asian central banks are also facing problems from the accelerated build-up of assets on their balance sheet. Unlike the developed country central bank's build up in balance sheet assets from liquidity support operations, many Asian central banks face problems from the build-up in foreign exchange assets on their balance sheets. This development generates a multitude of issues for central bank policy in maintaining macroeconomic growth and sustaining financial stability.

Large holdings of foreign exchange reserve assets give rise to substantial risks in future losses from valuation changes, including from exchange rate fluctuations. There are limitations to which a central can engage in hedging operations to mitigate potential risks from capital and operational losses. Moreover, the need to continuously accumulate foreign exchange reserves requires the conduct of off-setting policies, like sterilisation operations, to sustain the chosen monetary stance of the central banks. This is a well-known dilemma that central banks face when managing monetary policy and external sector stability.

Another issue related to the management of large capital inflows and complications for the conduct of monetary policy relates to the implication for the efficacy of policy measures in influencing the attainment of inflation objectives and achieving financial stability. There is ample empirical evidence that links

large capital inflows to surges in bank credit and to asset price bubbles. These developments reflect a misallocation of resources which central banks would have to manage through the use of macro-prudential policy measures.

4. Lessons to Draw for Bank Credit Development during the GFC

Similar to developments in the developed countries, Asian countries suffered the same initial disruptions to economic growth and bank credit in the aftermath of the GFC. However, unlike the developed countries, Asian economies experienced a quick recovery in economic growth and bank credit, even if this turnaround is still surrounded by downside risks from the continued poor performance of Asia's major trading partners. In early 2012, economic growth in Europe continued to be tepid, with some European countries in danger of experiencing a double dip in economic growth prospects. Economic growth recovery in the US was more sustained but still continued to be below potential amid the uncertainty brought about by disagreements in policy priorities and implementation of sustained measures. More importantly, bank credit and financial sector resources available for funding economic growth continued to underperform from prolonged market reluctance to support activities as risk appetite persisted in its hibernation.

In these circumstances developed country authorities and financial market researchers have undertaken substantial studies on the reasons behind the slow recovery in bank credits. So while Asian countries have not experienced this episode of prolonged low growth in bank credit, it is argued that they should draw lessons from the work undertaken by authorities of developed countries and authorities' explanation of the malaise in bank credit development to help in the design of polices to overcome this phenomenon. There is room for Asian central banks to institute similar studies or information collection, to better understand and thereby strengthen credit and funding markets to face future disruptions expeditiously.

The GFC has been characterised by deleveraging by banks and other financial entities, especially in Europe and the US. The presence of a credit crunch was clearly signaled initially by both rapidly falling bank credit flows and a sharp tightening by prudential authorities of credit standards applied to borrowers. This credit crunch has contributed to two main negative impacts. First, it has deepened and prolonged the economic recession in the affected economies in Europe and the US. Secondly, it is hampering as well as posing a threat for sustained economic recovery. These negative impacts have continued through early 2012, and have

been compounded by the sovereign debt problems of a few European countries and the more intractable medium- to long-term fiscal sustainability issue of many European countries and the US.

It is difficult to clearly disentangle the factors affecting the supply and demand for bank credit. It has been suggested that a credit crunch cannot be identified easily on the basis of observable data such as credit volumes and assessments of credit availability because developments can be demand driven rather than supply driven in a situation where the economic environment is not stable.[3] Constraints on the supply of credit may often be just a reflection of the sharp deterioration in the credit worthiness of borrowers, which may also be compounded by the strongly negative economic prospects for recovery in cash flows to cover repayment obligations. Furthermore, constraints on credit may have also stemmed from inappropriately tight prudential measures to recapitalised banks or increase their capital buffers. At the same time, banks which have inadequate capital or insufficient buffers may also face severe limitations in their ability to grow bank credit to support economic recovery.

The policy responses a central bank would deploy would largely differ depending upon which credit supply or demand factors are prevalent and responsible for the problems caused. For example, an increase in interest rates may be the result of an increase in demand for credit, which in a situation requiring monetary tightening would call for further increases in the rate. On the other hand, if the higher interest rate reflects a low supply in loanable funds, the policy response might be an expansion of liquidity requiring the lowering of interest rates. Another possible scenario could be that a fall in credit growth may be a combined result of both falling demand and supply for credit, in which case a more accommodative monetary policy may be appropriate.

In these circumstances, a variety of recent studies have sought to segregate the supply and demand factors affecting credit growth. The studies on bank credit development may be clustered into those that rely on survey-based data for analysis and those that rely on time series data.

4.1 Survey-Based Studies

This paper highlights several approaches in the use of survey-based data to analyse bank credit developments.

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3. See Gern, Klaus-Jürgen and Gern, Nils Jannsen, (2009), "Do We Face a Credit Crunch?" in The Crisis and Beyond. Henning Klodt and Harmen Lehment (Eds.), November , Kiel Institute for the World Economy.

A study in Australia estimated that "…. a one standard deviation shock to the balance of firms reporting difficulty obtaining finance (a 'credit supply shock') reduces Australian GDP by almost 1/3 percent after one year and gross national expenditure by nearly ½ percent." [4] They also found that the negative impact on business credit seems to be larger and lasted longer, persisting even after two and a half years. They were able to state that for Australia, the GFC impact on reducing credit supply contributed to a 1% reduction in GDP for 2009, but the effect was shorter in duration compared to the previous crisis in the 1990s.

The Australian researchers went about identifying credit frictions as manifested in the shift in credit supply stemming from financial stress separately from those factors that affected shifts in credit demand. They turned to a survey-based measure of the difficulty in obtaining business finance as a gauge for credit supply and used a structural VAR approach to validate their findings. The survey essentially asked the simple question – "Do you find it is now harder, easier, or the same as it was three months ago to get finance?" They sourced the data from the ACCI-Westpac Survey of Industrial Trends, which has a long history (since 1960) as a continuous running quarterly private-sector survey in Australia. The question posed in the survey has remained largely unchanged since mid-1966 and in recent years have covered 300 firms. The limitations recognised are that the survey covers only manufacturing firms, even though the influences from household and other non-manufacturing firms may be of importance. As shown in Figure 5, firms clearly reported difficulties in obtaining bank credit during the period of the GFC, which the study has attributed to supply of credit constraints.

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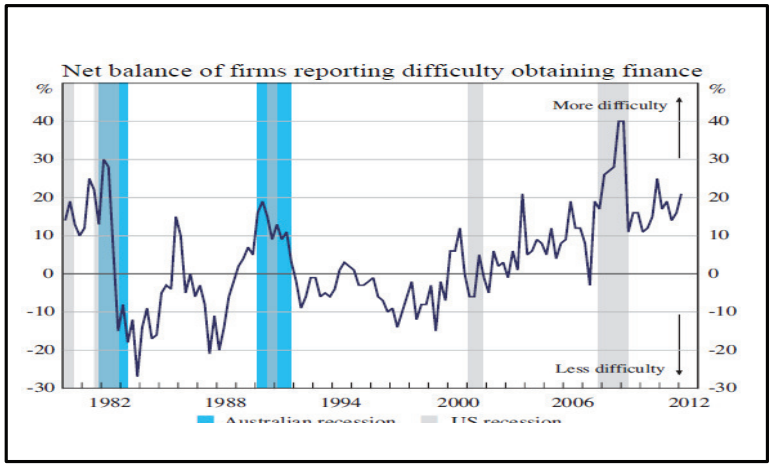
4. See Jacobs, D. and V. Rayner , (2012), "The Role of Credit Supply in the Australian Economy," *Research Discussion Paper*, May, Reserve Bank of Australia.

Figure 5
Difficulty Obtaining Finance

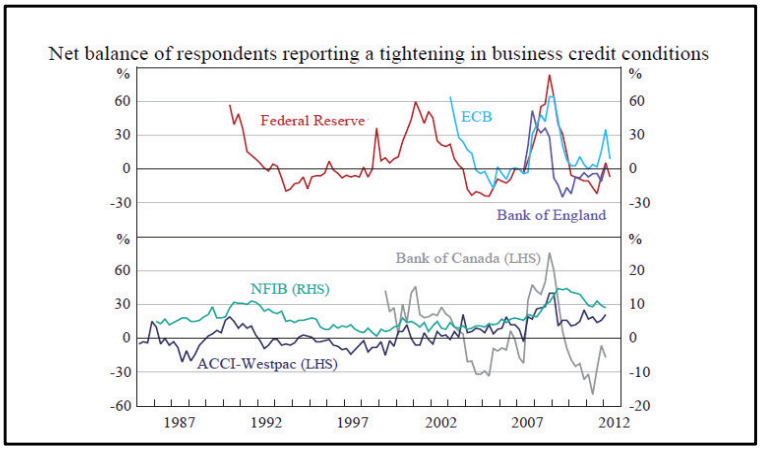


Sources: ACCI-Westpac; Melbourne Institute; National Bureau of Economic Research.

Note: Extracted from "The Role of Credit Supply in the Australian Economy" by D. Jacobs and V. Rayner, Page 11.

It is notable that similar surveys carried out in Europe, US, England and Canada seems to capture the same observation made by the Australian researchers. This is clearly depicted in Figure 6 drawn from this study. Similar surveys are conducted for Europe by the European Central Bank, for UK by the Bank of England, for Canada by the Bank of Canada and the US by the National Federation of Independent Business (NFIB).

Figure 6
International Credit Conditions Survey



Sources: ACCI-Westpac; Bank of England; Thomson Reuters.

Note: Extracted from "The Role of Credit Supply in the Australian Economy" by D. Jacobs and V. Rayner, Page 14.

Using survey data, research in the **Federal Reserve Bank of San Francisco** examined the supply side effects of loan pricing in the aftermath of GFC.[5] The paper used the Federal Reserve's Survey of Terms of Business Lending (STBL), which collects data on all Commercial and Industrial loans given out by 350 US banks. The survey is conducted every February, May, August, and November of each year, and first started in 1977. The panel of banks has stayed largely the same, changing only due to exit and merger of banks while the information asked have increased over time. Bank credit data include risk ratings, the loan rate and type (e.g. prime), the loan size, commitment status, and if loan is secured by collateral. The survey data is then merged with the financial data of the reporting banks collected from the quarterly Report of Conditions and Income, by the FED.

The findings from this study indicated that: 1) large and medium-sized banks tightened loan rates more than small banks. It is also true of course that small bank rates are more often higher even if they tended to tighten less; 2) while small loans tend to have a higher spread than large loans, small loans actually

5. See Kwan. S.H., (2010), "Financial Crisis and Bank Lending," *Working Paper Series*, May, Federal Reserve Bank of San Francisco.

tightened less than larger loans. This shows that bank-dependent small borrowers did not suffer more from bank tightening relative to larger borrowers.

The channels for loan tightening usually took the form of reducing discounts on large loans, increasing risk premiums, and complying with more restrictive prudential ratios placed on banks.

In contrast, **survey data from Italy** that contain information on loan applications and bank decisions were used to understand the effects of the GFC on SMEs credit trends. The paper draws on a monthly survey of about 3,800 Italian manufacturing firms, interviewed from March 2008 to February 2010 by the ISAE (Institute of Studies and Economic Analysis).[6] The survey provided information on the loan applications and their outcome for these manufacturing firms. Analysis of the data permitted the separation of demand and supply effects, and this helped to identify the existence and severity of credit crunch across firms and markets. The firm level survey data was then merged with information on the spatial distribution of bank branches in order to assess the effect of the organisational structure of the local banking systems on access to credit by local firms.

The findings threw light on the importance of the hierarchical structure of banks in the local market in determining decisions on giving bank credit. It reinforces the belief that relationship-based lending is relevant. The impact on SMEs from credit supply factors were largely neutral but larger firms suffer most if they are customers of distant banks as opposed to local banks. Thus this study seems to establish that there is a home bias when credit markets are disrupted. It would appear that when banks react by pursuing a flight-to-quality, a more distant customer would be placed at a disadvantage.

4.2 Studies Using Time Series Data

Several researchers have also relied on the more traditional time series data sets to look at credit market developments. This section identifies several interesting studies.

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6. See Presbitero, A.F.; G.F. Udell and A. Zazzaro, (2012), "The Home Bias and the Credit Crunch: A Regional Perspective," *Journal of Money, Credit and Banking* (forthcoming).

Researchers in Germany from the Bundesbank analysed time series data using a Bayesian VAR model to evaluate the development of loan volume against the past and current macroeconomic conditions to understand the economic causes affecting the supply and demand of credit trends.[7] In the aftermath of the GFC, businesses in Germany were very vocal and placed the blame on banks for their reluctance in extending credit to support economic recovery. The banks countered by asserting that tighter bank capital requirements were not to be blamed for banks holding back on lending because of increased credit risks posed by businesses due to the negative economic outlook.

The findings indicate that as the GFC intensified there were substantial decline in bank credit from loan supply shocks. However, the historical evidence from the time series data seems to suggest that the cumulative effects of monetary and credit supply shocks are more than off-set by other factors, which subsequently leads to higher volume of credit. They cautioned that these findings are very tentative and the robustness of the results remains to be tested.

Another study by the **Federal Reserve of San Francisco** evaluated bank credit developments in nearly 200 recession episodes in 14 countries over the past 140 years.[8] The paper mostly focuses on leverage over the business cycle. The findings support the notion that financial factors exert an important role in influencing the variations in the business cycle. The study validates conventional wisdom that more credit-intensive booms tend to be followed by deeper recessions and slower recoveries. It also provides evidence that the effects of leverage are particularly pronounced in recessions that coincide with financial crises.

It is not surprising that financial crisis is closely associated with a sharp slowdown in credit growth and investment. Crisis is further amplified where a prior large build-up in leverage is present during the expansion stage. This explains why banks are reluctant to lend even when there are promising business opportunities because they are busy deleveraging. But at the same time, there are also the effects from the fall in demand for credit as businesses and households may also be deleveraging by undergoing balance sheet repairs. The historical evidence suggest that policy-makers need not worry too much about unleashing inflationary pressures if they decide to pursue a policy which aims at keeping interest rates low for a prolonged period.

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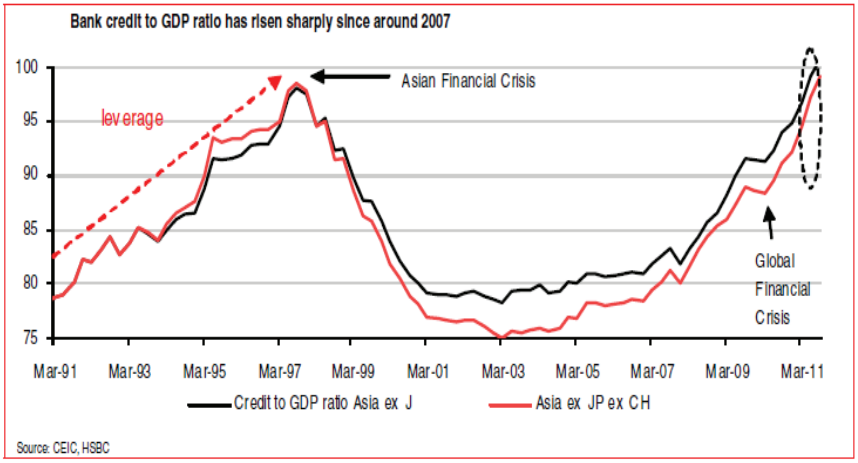
7. See Busch, U.: M. Scharnagl and J. Scheithauer, (2010), "Loan Supply in Germany during the Financial Crisis," *Deutsche Bundesbank Discussion Paper Series*, 1, Economic Studies No. 05/2010.

8. See Jorda, O.; M. Schularick and A.M. Taylor, (2011), "When Credit Bites Back: Leverage, Business Cycles and Crises," *Working Paper Series,* November, Federal Reserve Bank of San Francisco.

A more recent study from **HSBC** finds evidence that GDP growth itself has become more credit intensive.[9] The study first asserts that credit has fueled the impressive recovery in growth following the GFC. Credit has also actually grown faster than growth rates and this trend is clearly not sustainable, as reflected in Figure 7 and 8.

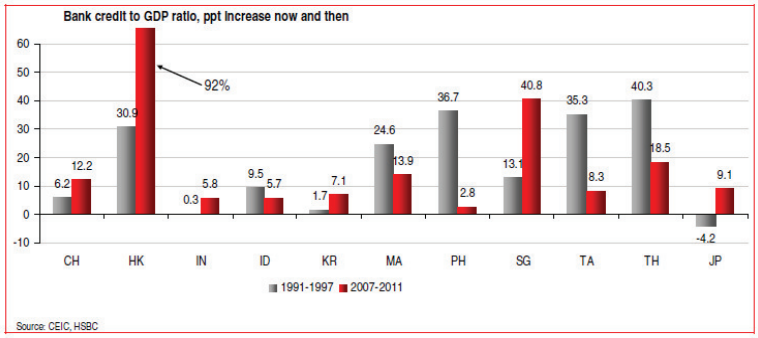
Figure 7
Bank Credit to GDP Ratio



Note: Extracted from "How Credit Intensive is Asia's Growth?" by F. Neumann and S. Mukherjee, Flashnote, HSBC Global Research, January 2012, Page 2.

9. See Neumann, F. and S. Mukherjee, (2012), "How Credit Intensive is Asia's Growth?" Flashnote, HSBC Global Research, January.

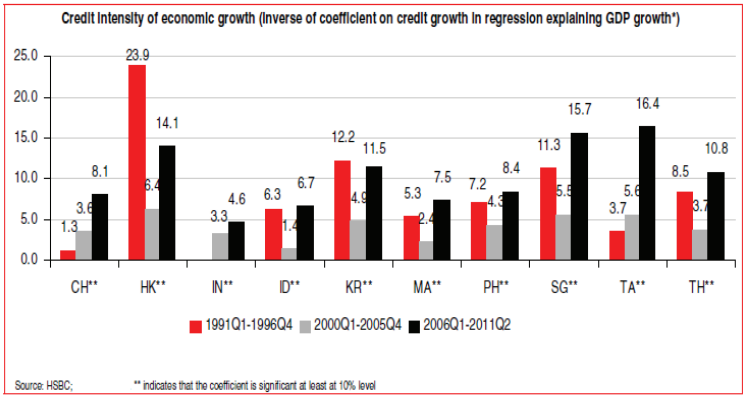
Figure 8
Bank Credit to GDP ratio



Note: Extracted from "How Credit Intensive is Asia's Growth?" by F. Neumann and S. Mukherjee, Flashnote, HSBC Global Research, January 2012, Page 2.

They presented evidence (see Figure 9) that for a given increase in bank lending the resulting economic growth achieved has fallen in recent years. They qualified that there is as yet no evidence which implies this deteriorating matrix is a result of falling returns on investments or a decline in productivity. It was found that rising credit intensity over the past ten years were more prominent in China, Chinese Taipei, Singapore and Thailand.

Figure 9
Credit Intensity of Economic Growth



Note: Extracted from "How Credit Intensive is Asia's Growth?" by F. Neumann and S. Mukherjee, Flashnote, HSBC Global Research, January 2012, Page 3.

These HSBC researchers stated that the findings perhaps suggested that the quality of growth in Asian economies has deteriorated. This would need to be closely monitored as they may have negative implications on financial developments in the future.

In summary, the paper highlights the foregoing studies, which analyses several issues related to credit developments connected with the GFC or other crisis, from which SEACEN economies could draw lessons from. Many central banks in Asia should, working with other stakeholders, consider commissioning surveys like those undertaken by the countries described above. SEACEN economies could also usefully replicate the studies utilising time series data as set forth in this paper. This will help in securing a deeper understanding in the workings of credit markets in normal times and at times when markets are disrupted or when they exhibit exuberance.

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SESSION 3

GLOBALIZED BANKING SECTORS: FEATURES AND POLICY IMPLICATIONS AMIDST GLOBAL UNCERTAINTIES[1]

By
Reza Y. Siregar[2]

1. Introduction

One notable trademark of financial globalisation in recent years has been the remarkable rise in cross-border banking linkages, especially between emerging markets. From the first half of 2006 to the first half of 2007, total loans of the global banks to emerging markets increased from about USD 200 billion to more than USD 500 billion (Figure 1). Amidst the global financial uncertainties since 2007, the ASEAN+3 (excl. Japan) economies continued to attract a significant portion of the global banks' loans to emerging markets, albeit at a decelerating rate[3].These economies on average attracted about 1.4, 1.6 and 3.2 times international bank lending reported by the emerging markets of the Europe, Latin America and Caribbean, and Africa and the Middle East during each quarter of 2010 – 2011, respectively (Figure 2).

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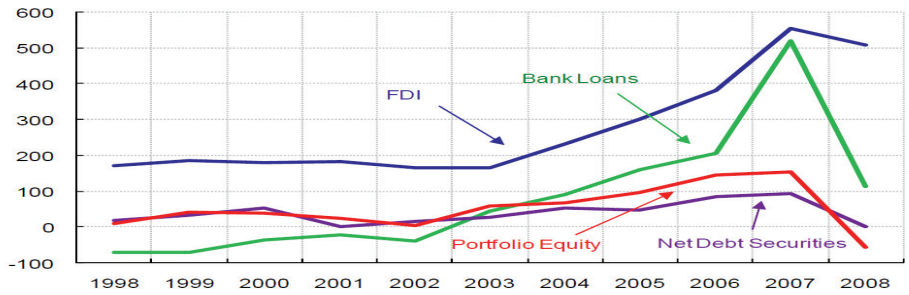
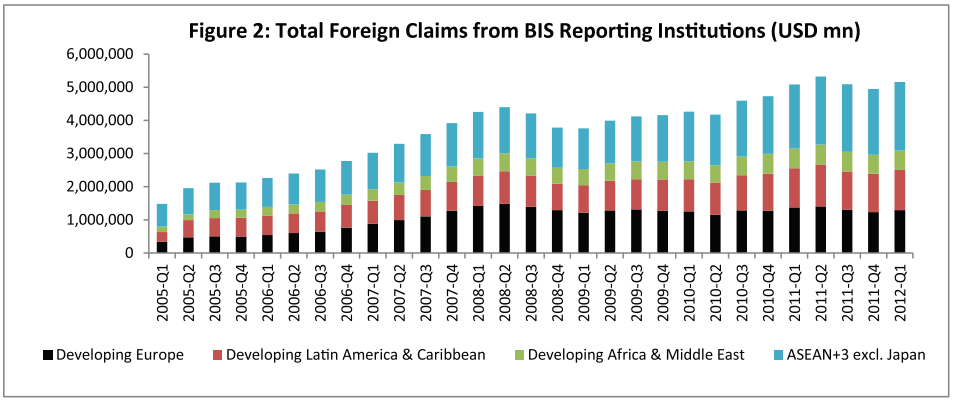
1. The early draft of this paper was presented at the "SEACEN-CeMCoA/BOJ High-Level Seminar on Finding Asia's New Sustainable Growth Model Post GFC: The Role of the Central Banks", November 2012 in Kuala Lumpur. Comments and suggestions from the participants are greatly acknowledged and appreciated. Views expressed in this study, however, are of the author's alone and do not necessarily represent those of the ASEAN+3 Macroeconomic Research Office (AMRO) and its management.
2. Group Head and Lead Economist, The ASEAN+3 Macroeconomic Research Office (AMRO).
3. The ASEAN+3 includes the ASEAN-10 economies, China (including Hong Kong), Japan, Korea and Singapore.

Figure 1
Capital Flows to the Emerging Markets



Source: Cetorelli and Goldberg (2009).



Source: BIS Database.

The alleged advantages of opening the local financial markets to the foreign banks are well-known. Under the presence of foreign banks, emerging markets have benefitted from efficiency gains manifested in the form of greater variety in financial services and lower prices; transfer and spill-over of knowledge and technical know-how as well as greater availability of funding most especially to credit-constrained firms and households. Foreign bank lending has also been found to be more stable during the past economic and financial crises originated from the emerging markets.

Yet the sudden interruption to this spectacular rise in international bank lending during the recent 2007/2008 global financial crisis serves as a stark reminder that international bank lending can rapidly transmit adverse shocks from developed markets to emerging markets. Compared to long-term equity

flows such as foreign direct investment (FDI), cross-border bank-intermediated capital flows, being a form of short-term debt capital flow, may potentially pose more risk to the recipient economy if not properly managed. The risk exposure may be magnified if the bank loan is in foreign currency and hence subject to currency mismatch in the borrowing economies, as was reported during the Asian financial crisis in the late 1990s.

The objective of this study is to identify a number of specific features and characteristics of foreign banks' activities in East and Southeast Asian economies, and to weigh their implications on the local economies, including policy challenges to the central banks and banking supervisors of the region. While many studies have been carried out on these topics, a few have so far focused on these economies.[4] The road map of the paper is as follows. Section 2 of the paper presents a brief overview of the banking sector landscape in the ASEAN+3 economies. Next, Section 3 of the study reviews the literature to take stock of factors driving the international bank lending into various Asian economies. Section 4 dwells into core financial stability implications of the foreign bank activities on the domestic economies. Lastly, Section 5 reviews a number of topical debated policy issues, especially in the area of central banking. A brief concluding remark section (Section 6) ends the study.

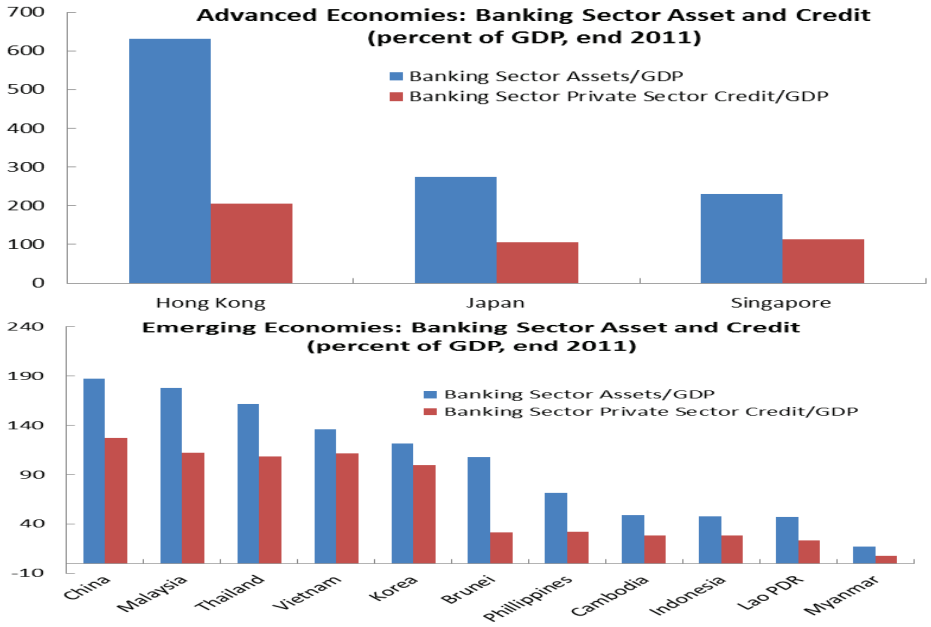
2. A Brief Overview of Banking Sector Landscape in ASEAN+3 Economies

Despite their various stages of financial development, banks still, in general, play a dominant role in the financial intermediation in most of the ASEAN+3 economies. Advanced economies in the region, namely Japan, Hong Kong and Singapore exhibit the highest level of banking sector asset in terms of GDP at more than 200% (Figure 3). For international financial centres such as Hong Kong and Singapore, the oversized banking sector partly reflects a large amount of offshore financial activities. In general, emerging economies project a mixed picture in terms of the banking sector development. Some fast growing economies in the ASEAN+3 region have built fairly large banking sectors, and relied heavily on bank credit to channel savings to investments. These include China, Korea, Malaysia, Thailand and Vietnam, which all have banking sector assets and credit to private sector around or above 100% of GDP. Yet, banking sector is still

4. Among the recent works on the global banking and implications on the East and Southeast Asian economies are Siregar and Choy (2010) and Pontines and Siregar (2012).

modest in other emerging economies, such as Brunei, Cambodia, Indonesia, Lao PDR, Myanmar and Philippines, with average banking sector asset of 56.7% to GDP and bank credit to private sector of 25.2% to GDP.

Figure 3
Key Stylized Facts of the ASEAN+3 Banking Sectors



Source: CEIC Database and Annual Reports of the Central Banks.

Foreign banks are dominant in a few ASEAN+3 economies, but their participations remain modest in others. With the exception of Myanmar, foreign banks are present in every other economy in the ASEAN+3 region[5]. Their presence is large in some non-financial centre countries, such as Brunei and Cambodia, where they outnumber the local competitors. Foreign banks represent an important share in a few other economies, such as Malaysia and Korea, where they account for around 20% of the market. For the rest of the non-financial centre economies, the overall foreign banks' presence is relatively modest, with usually less than 15% of the total assets, and their share in deposit and loans could be even lower. For the largest economies in the region (China

5. This is the general situation as of the end 2011. The lift of sanctions on Myanmar since early 2012 would allow foreign banks to enter Myanmar.

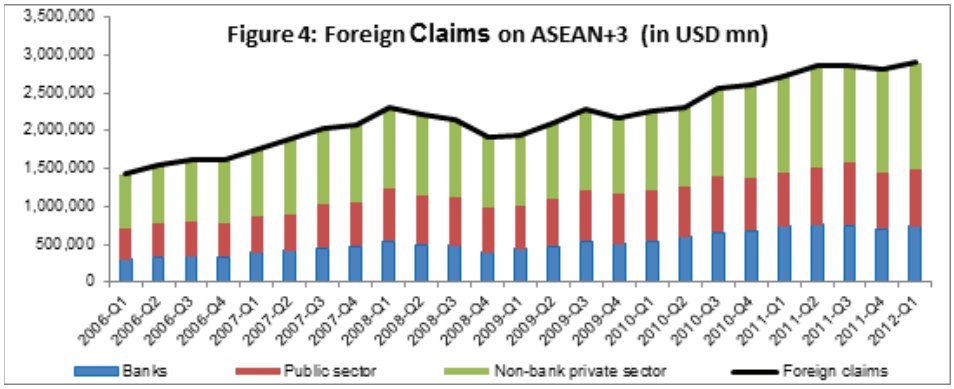
and Japan), foreign banks remain small compared to their domestic counterparts at lower than 4% of the total banking sector. Foreign banks are usually competing in the same business areas as the domestic banks, although depending on the country they are subject to different levels of restrictions regarding ownership structure and range of business.

Major foreign banks in the region have diversified origins and lend to all segments of the markets. Some large global banks, such as Citi Group, Bank of America, JP Morgan, Mitsubishi UFJ, Mizuho, HSBC, Standard Chartered, Deutsche Bank, Royal Bank of Scotland, BNP Paribas, ANZ, etc., all have representations in the region. Regional banks have also become major players in the region, such as CIMB, DBS, OCBC, UOB, Bank of China, Bangkok Bank, Maybank, etc. As in other emerging markets of the world, the foreign bank's presence in the region is either in the form of subsidiary or branch (Table 1). With the exception of Malaysia, most of the ASEAN+3 economies authorise the establishment of both subsidiary and branch in their territories. Between 2010 and 2011, the non-bank private sector has been the largest recipient of the global bank lending to the region, absorbing on average around 46.5% of total lending, followed by the public (27.6%) and banking sectors (25.7%) (Figure 4).

Table 1
Status of Selected Foreign Banks in ASEAN+3 Economies

Malaysia	
HSBC Bank Malaysia Berhad	Subsidiary
Standard Chartered Bank Malaysia Berhad	Subsidiary
Deutsche Bank (Malaysia) Bhd.	Subsidiary
Bank of Tokyo-Mitsubishi UFJ (Malaysia) Berhad	Subsidiary
Citibank Malaysia (L) Ltd	Subsidiary
Indonesia	
PT Bank ANZ Indonesia	Subsidiary
PT Bank Mizuho Indonesia	Subsidiary
Bank BNP Paribas Indonesia PT	Subsidiary
Citibank	Branch
Deutsche Bank	Branch
HSBC	Branch
Standard Chartered	Branch
Korea	
Standard Chartered Bank Korea Limited	Subsidiary
Citibank Korea Inc.	Subsidiary
Philippines	
Hongkong and Shanghai Banking Corp Ltd	Branch
Bank of Tokyo - Mitsubishi UFJ Ltd	Branch
Citibank Savings Inc	Subsidiary
United Overseas Bank Philippines	Subsidiary
Thailand	
United Overseas Bank (Thai) PCL	Subsidiary
Standard Chartered Bank (Thai) Public Company Limited	Subsidiary
CIMB Thai Bank Public Company Limited	Subsidiary

Source: Annual reports and Bank-scope Database.

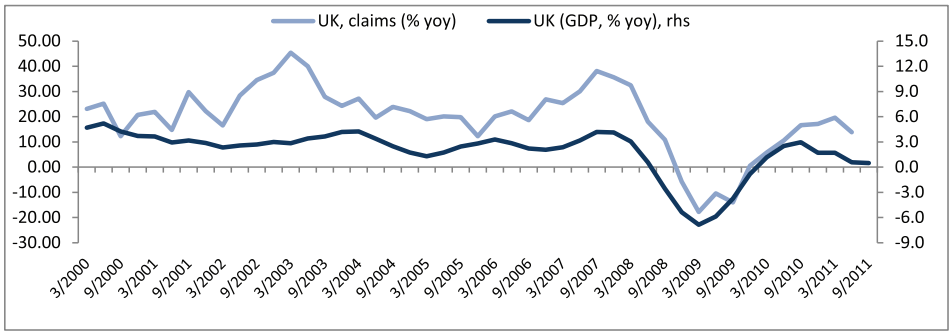


Source: BIS Database.

3. Determinant Factors of Global Bank Lending: A Brief Overview

Studies have been carried out to ascertain push and pull factors behind the global bank lending outside of their home countries. Only a few have however focused on the Asian emerging markets. In their recent study, Pontines and Siregar (2011) highlighted several fundamental determinant factors of bank lending from three major advanced economies, namely Japan, the UK and the US to a number of Asian economies, such as Indonesia, Korea, Malaysia, and the Philippines. To start, the real GDP growth rates of the home (Japan, UK and US) and host Asian economies have, indeed, been an important factor. In particular, the pro-cyclicality of these flows, i.e., better (worse) economic conditions in the host (home) economies leads to greater (less) bank flows into some of these Asian economies. This was evident in late 2008 and early 2009, following the collapse of the Lehman-Brothers, as demonstrated by the UK banks' lending to the world (Figure 5).

Figure 5
Pro-cyclicality of International Lending of UK Banks and GDP Growth Rate



Source: BIS database and AMRO Staff Calculation.

The short-term uncertainties and volatilities of the global economies, captured by the widely used S&P 100 Volatility Index of the Chicago Board Options Exchange for instance, are found to have adverse impacts on the flows of international bank lending into the East Asian region. This finding strongly suggests that global/external factors have a role to play in determining bank flows from developed to emerging economies. The balance of the evidence also appears to suggest that greater exposure on the part of major foreign banks in these Asian economies fulfil a stabilising or crisis-mitigating role of international bank lending

during periods of financial distress such as that of the 1997 East Asian financial crisis. However, the opposite case is found during the recent subprime crisis. In short, the impacts and roles of international bank lending in the local economy can be a double-edged sword. In good times, the flows contribute positively to the financing of economic activities. However, during times of uncertainties in the local and external markets, international bank lending can amplify the severity of volatilities and hence the vulnerability risks of the local economy.

Another determinant of the lending of the international banks is bilateral trade activities between home and host economies. This is particularly evident for instance in the case of early expansion of the Japanese banks to the East Asian markets, as found in Siregar and Choy (2010). The same study also found political stability, legal and bureaucratic quality have become increasingly important considerations for the expansion of global bank lending to East Asia following the 1997 East Asian crisis. Distance plays a role as well in various regions of the world. In particular, multinational banks place priority in expanding their activities into their close neighbours in the early stage cross-border endeavours. Lastly, the strength and soundness of these international banks' balance sheets have also been found to influence their capacities and willingness to loan. This aspect of balance sheet particularly focuses on asset/capital size, solvency, liquidity and profitability.

4. Financial Stability Implications

Financial stability is receiving increased attention in both policy making and academic settings, as concerted efforts are made to draw lessons from the recent global financial crisis. The challenge of incorporating the lessons of the crisis is however increasingly more difficult, in part, because there is no one clear definition of financial stability (and instability). From a more focused point of view shared by many central banks, including those in ASEAN+3 economies, financial stability describes the condition where the financial intermediation process functions smoothly and there is confidence in the operation of key financial institutions and markets within the economy. Others take a slightly broader perspective of financial stability that encompasses monetary stability, asset price stability and growth stability (Foot (2003)). Financial stability should reflect the ability of the financial system to consistently supply the credit intermediation and payment services that are needed in the real economy if growth is to continue (Rosengren, 2011). The next sub-sections examine a number of frequently debated financial stability consequences of foreign bank's activities on the host economies, particularly the ASEAN+3 economies.

4.1 Lending Activities

4.1.1 Global Banks

The recent global financial crisis provides a rather unique opportunity to assess the lending performance of the global banks during the period in which financial turbulence originated from the developed economies, home of the major banks of the world. In the past, global bank lending had been demonstrably more resilient and better prepared to handle shocks originating from emerging markets. The emerging trends from the 2007/2008 global financial crisis and the European sovereign debt crisis painted a contrasting picture. Claessens and van Horen (2012) study over 3615 banks in 118 countries (of which 1198 foreign banks) covering the period of 2005-2009. They find conclusive evidence that foreign banks reduced lending more compared to their domestic counterparts in 2009. A quick glimpse of a number of ASEAN+3 economies supports the findings of Claessens and van Horen (2012). The foreign banks' gross lending in the Philippines for instance grew by 1.1% in 2009 and -10% in 2011, significantly lower than 4.6% in 2009 and 18.8% in 2011 for the whole banking system. Major European branches and subsidiaries in selected ASEAN economies saw their lending contract and become more volatile during the period of 2008-2011 (Table 2). Nonetheless, the major local banks continued to support their lending growths during those turbulent years.[6]

6. Given the limited publically available balance sheet data on individual major bank, this assessment should only be considered indicative and may not be conclusive.

Table 2
The Loan Growth of Selected Foreign and Local Banks in ASEAN+3 Economies

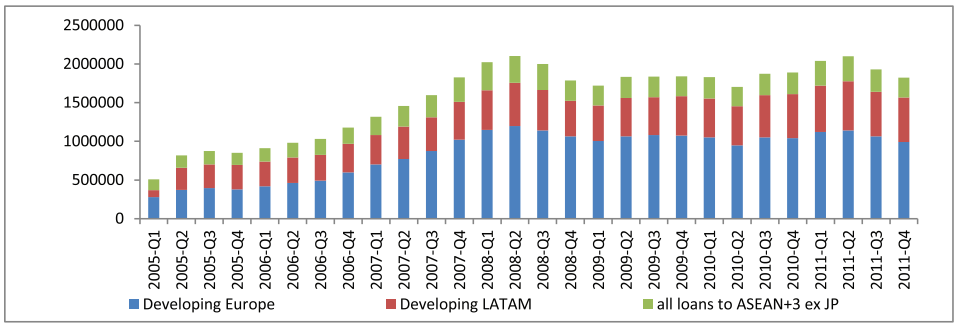
(in percent)	2008	2009	2010	2011
Indonesia				
Bank Mandiri (Persero) Tbk	25.96	13.78	24	27.69
Bank Rakyat Indonesia (Persero) Tbk	41.36	29.18	21.62	16.35
Bank BNP Paribas Indonesia PT	58.17	-91.55	226.37	n.a.
Malaysia				
Malayan Banking Berhad - Maybank	16.04	12.97	10.29	22.47
CIMB Bank Berhad	17.8	17.18	9.15	11.87
HSBC Bank Malaysia Berhad	14.39	-3.3	18.74	14.68
Deutsche Bank (Malaysia) Bhd	35.52	-18.84	-4.31	8.83
Citibank (Malaysia) Bhd	-2.95	-6.44	4.51	4.29
Thailand				
Bangkok Bank Public Company Limited	13.34	-3.31	9.89	17.14
Kasikornbank Public Company Limited	18.56	4.3	14.19	12.48
Standard Chartered Bank (Thai) PCL	13.42	-7.29	18.51	2.74

Source: Bankscope Database and AMRO Staff Calculation.

Due to the need to shore-up capital and mitigate funding strains, European banks have been under heavy pressure to promptly trim down their balance-sheets. In its report, the IMF projected banks in the European Union would undergo a USD 2.6 trillion deleveraging in 2013 and 2014 (WEO, 2012). Moreover, massive bank bailouts using tax payer funds during the 2008 global financial crisis have pressured banks to focus more on domestic lending activities and prune back on activities abroad. Consequently, economies that were highly exposed to the cross-border lending activities of these Eurozone banks have had to bear the consequences of recent deleveraging efforts. While the ASEAN+3 economies (excluding Japan) attracted only around 15% of the total foreign claims of the Eurozone banks to the emerging markets of the Europe, Latin American and ASEAN+3 (Figure 6), these economies endured the steepest rates of drops of the Eurozone loans during the final two quarters of last year. The total foreign claims of the Eurozone banks to the ASEAN+3 economies contracted quarter on quarter by an average of 10.5% during the second half of 2011, compared to about 4.5% for Latin American and Caribbean (LATAM) economies and 6.8% for the developing European economies. However in nominal terms, the developing European economies suffered the sharpest pull-outs, a total deleveraging of over USD 150 billion during the last 6 months of last year compared to about USD 59.4 billion for the LATAM and USD 65.6 billion for the ASEAN+3 economies. The total loan to ASEAN+3 (excl. Japan) for the

first quarter 2012 reported a positive rebound of around 7% from the last quarter of 2011, but still 11% less than the inflow recorded a year earlier.

Figure 6
Total Foreign Claims of the Eurozone Banks (in million USD)



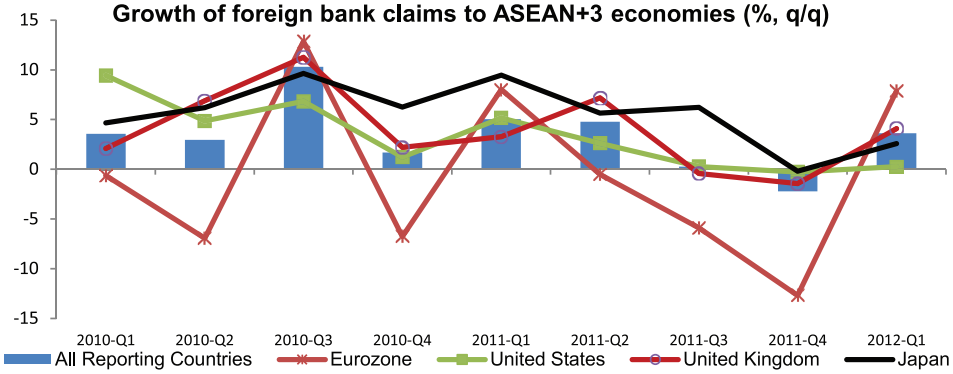
Note: LATAM = Latin American and Caribbean economies. The Eurozone banks include banks from major creditor economies (Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, and Spain).

Source: BIS Database.

The slowdowns in the inflows of claims to ASEAN+3 were evident across international banks across the globe but at significantly diverse rates, with non-Eurozone banks performing better (Figures 7 and 8).Total foreign claims of the Eurozone, US, UK and Japan contracted on a quarterly basis during the second half of last 2011, particularly in the last quarter of 2011[7]. As expected, deleveraging by Eurozone banks has been most substantial, at an average quarter-on-quarter rate of -7.3% since the second quarter of 2011. This contractionary trend has continued to gain momentum from -1% in the second quarter 2011, to -7% in the third quarter 2011 and -14% in the fourth quarter 2011. In comparison, total foreign claims on ASEAN+3 of all BIS reporting banks only began to contract since the third quarter of 2011 at an average quarter-on-quarter rate of 1.38%. During the same period, the US and the Japanese bank lending remained relatively robust. Japanese banks in particular continued to lend strongly to ASEAN+3 economies, with the quarter-on-quarter lending growth averaging at 5.44% in 2011 with some moderation observed in the fourth quarter of 2011.

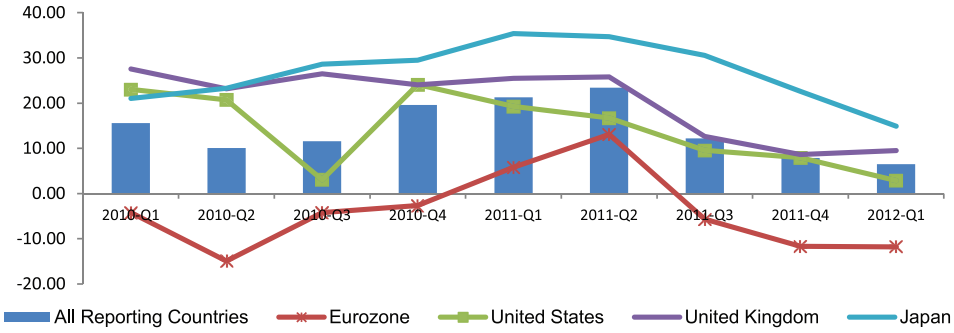
7. As of June 2012, the latest available BIS data on consolidated bank lending is for the fourth quarter of 2011.

Figure 7:
Growth of foreign bank claims to ASEAN+3 economies (%, q/q)



Source: BIS Database.

Figure 8: Growth of foreign bank claims to ASEAN+3 economies (%, y/y)



Source: BIS Database.

Furthermore, the largest recipients of the global bank loans endured the sharpest sudden reversals of the flows. The plus-3 economies (China, Korea and Japan) and the financial markets of the region (Hong Kong and Singapore) attracted on average nearly 60% and 30% of total foreign claims to the ASEAN+3 economies in 2011, respectively (Table 3). Yet, the same two groups of economies endured the sharpest slowdowns of international bank lending, especially from the Eurozone banks (Figure 9). The plus-3 economies reported a quarter-on-quarter pull-out of foreign claims of the Eurozone banks on the average of 11% per quarter within the last two quarters of 2011, compared to 9.9% for Hong Kong and Singapore, 8.5% for ASEAN-5 (Indonesia, Malaysia, Philippines, Thailand and Vietnam) and 6% for BCLM (Brunei, Cambodia, Laos and Myanmar). The decline in UK bank lending to the region follows a similar trend.

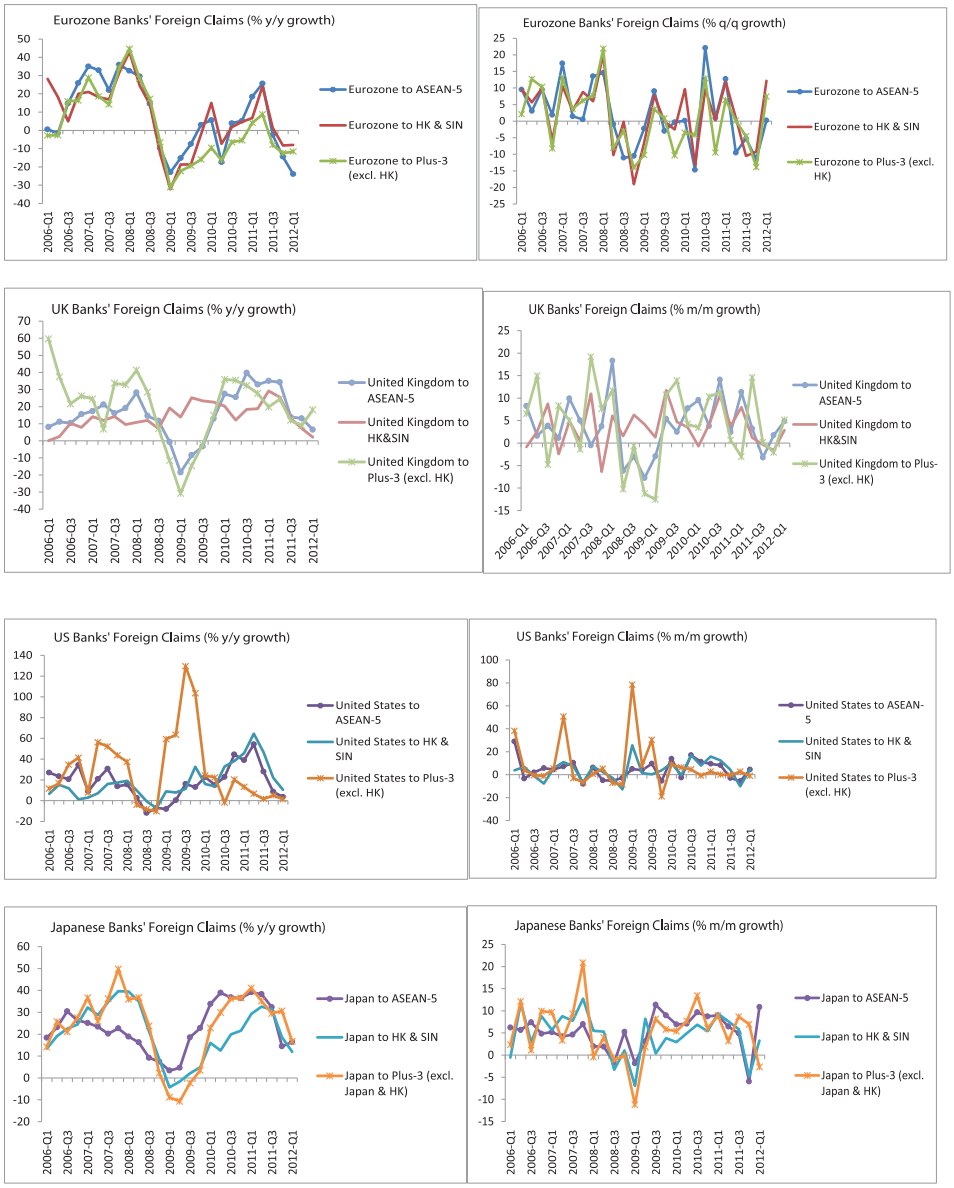
It is interesting to note however that the lending of the Japanese and the US banks to the plus-3 economies continued to be robust in the second half of 2011. In particular the Japanese banks have continued to expand their foreign lending to China and Korea at an average quarter-on-quarter rate of 7.1% during the final two quarters of last year.

Table 3
Foreign Claims Shares

Foreign claims on ASEAN+3 countries (USD bn, ultimate risk basis)										
	2007	2008	2009	2010	2011-Q1	2011-Q2	2011-Q3	2011-Q4	2012-Q1	2012-Q1 (% share)
Total ASEAN+3	2,080.55	1,922.99	2,172.81	2,598.38	2,729.00	2,859.45	2,867.10	2,803.76	2,905.66	100.000
Japan	778.45	714.06	769.48	857.59	793.79	808.94	832.28	815.79	833.27	28.677
Hong Kong SAR	331.70	342.80	397.79	481.79	519.77	539.62	547.60	532.46	541.50	18.636
China	214.07	175.81	236.77	356.37	425.11	478.14	487.93	474.29	497.80	17.132
South Korea	331.21	272.94	303.10	318.43	338.00	348.38	318.48	318.10	330.69	11.381
Singapore	191.46	187.74	212.20	261.58	292.39	310.30	312.25	298.71	318.02	10.945
Malaysia	104.25	98.81	103.55	125.42	139.37	145.48	140.16	144.33	151.91	5.228
Indonesia	46.72	47.86	54.52	74.41	84.06	88.45	87.78	88.29	89.94	3.095
Thailand	44.89	46.52	56.72	73.42	82.69	84.37	83.49	75.69	85.36	2.938
Philippines	23.32	21.37	23.53	30.34	32.44	32.67	34.04	32.04	31.94	1.099
Vietnam	11.49	11.48	12.45	15.81	16.90	18.40	18.42	18.99	20.13	0.693
Brunei	1.71	2.11	2.03	2.40	3.71	3.67	3.89	4.08	4.01	0.138
Myanmar	0.85	1.00	0.23	0.23	0.24	0.24	0.24	0.34	0.43	0.015
Laos	0.37	0.36	0.29	0.33	0.35	0.37	0.34	0.36	0.35	0.012
Cambodia	0.07	0.13	0.17	0.25	0.19	0.43	0.21	0.29	0.32	0.011

Source: BIS Database.

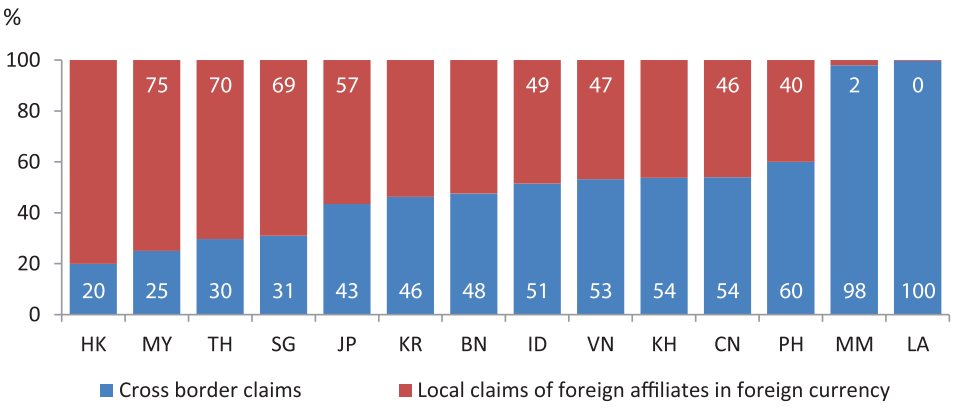
Figure 9
Growths of Foreign Claims to ASEAN+3 Economies



Source: BIS Database and AMRO Staff Calculation.

The high exposure to ASEAN+3 economies through cross-border lending partially explains relatively large cutbacks in the international bank lending to the region.[8] Further investigation into the composition of total foreign claims of global banks into the ASEAN+3 region shows that a significant share of total claims (around 40%) has been in the form of cross-border lending (Figure 10). This is in sharp contrast to the situation in Latin American countries where local lending of international banks was proportionally larger than their cross-border lending. For Indonesia, China, Philippines and the CLMV economies (Cambodia, Laos, Myanmar and Vietnam), the share of cross-border lending out of overall foreign claims are well above 50%. This is considerably higher than the 17 to 27% share of cross-border lending activities for Eurozone claims in major Latin American economies, such as Argentina, Brazil and Mexico. As demonstrated in selected ASEAN+3 economies' experiences (Figure 11), the growths of cross-border lending have largely been more volatile and often experienced sudden and sharper withdrawals than the local lending. At the height of the Lehman Brothers crisis, the total cross-border lending to ASEAN+3 region plummeted by more than -15% in the second quarter of 2009 from the same quarter a year earlier, while the local claims of these banks in the region continued to expand robustly at above 33% for the same period.

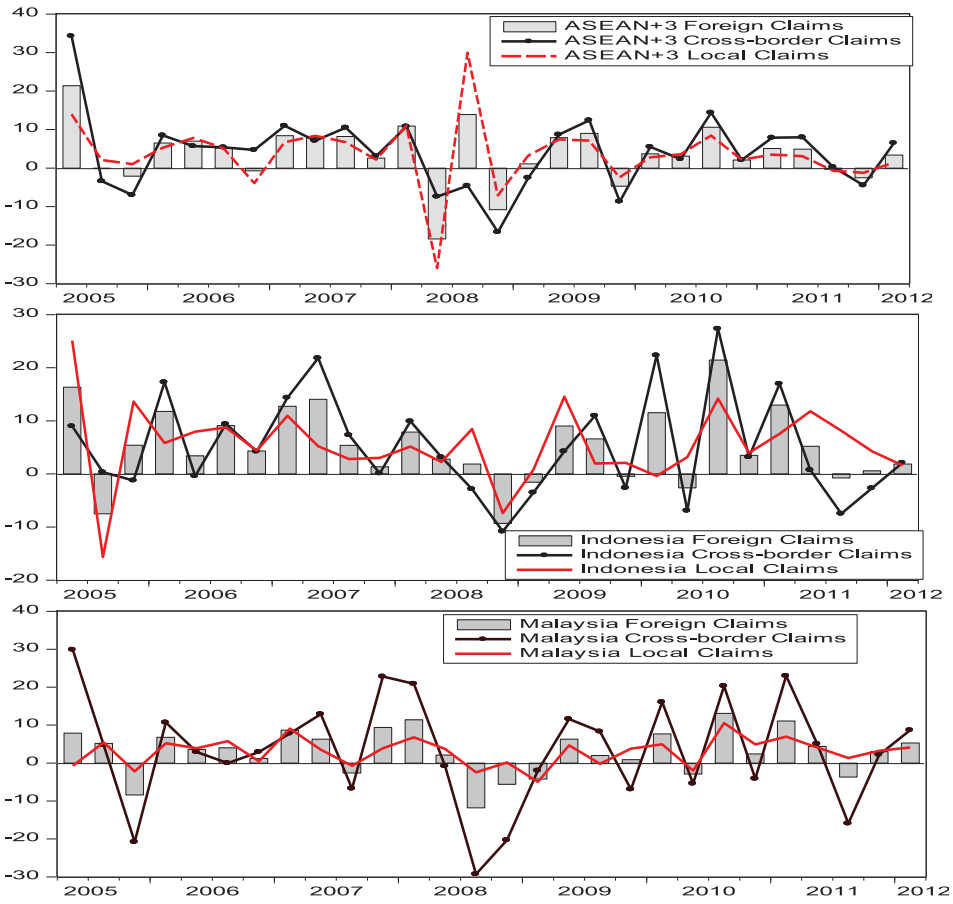
Figure 10
Shares of Cross Border Claims and Local Claimsat the End 2011



Source: BIS Database and AMRO Staff Calculation.

8. Total foreign claims of global banks can be decomposed into two parts. The first part is the local lending component which is lending carried out by local subsidiaries or branches of a particular global bank, using funding generated from the local economy. The second component is the cross-border lending which are sourced from the external network or head-quarters of the bank.

Figure 11
Quarterly Growths of Different Forms of Claims

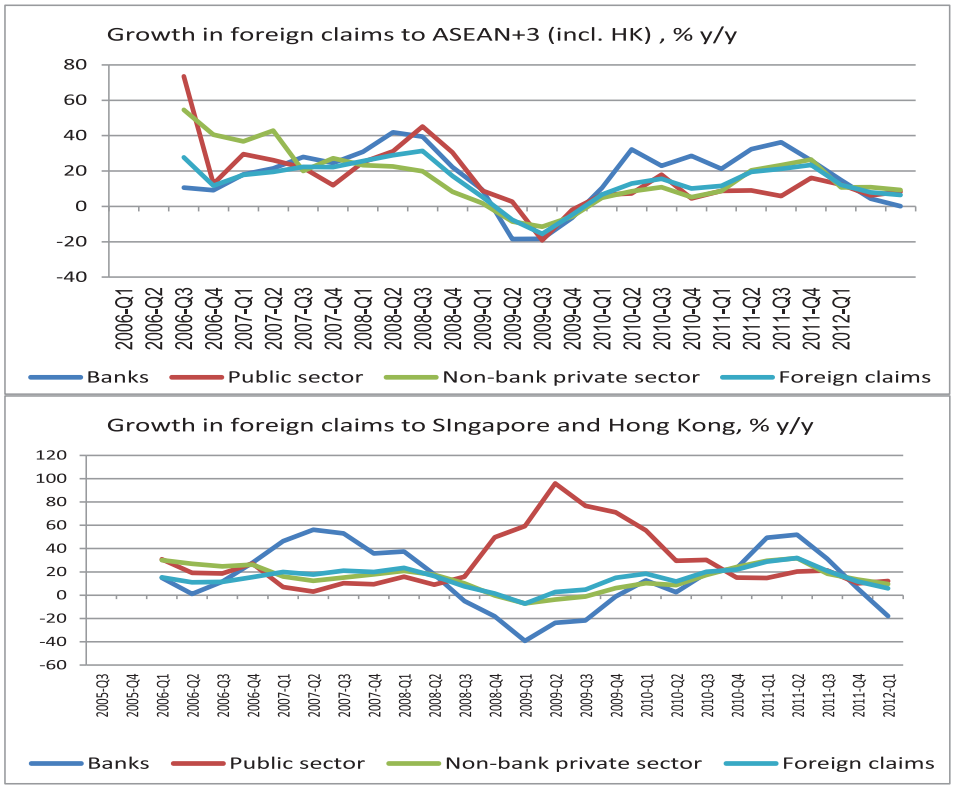


Note: Source: BIS Database and Staff Calculation.

Lending of the international banks targets three domestic sectors: public, non-bank private and banking sector. Among the various domestic sectors, the banking sector of the ASEAN+3 economies suffered the worst cuts in the lending of the foreign banks in 2011 and early 2012. From third quarter of 2011 to first quarter of 2012, foreign claims to the banking sector grew in average of 6.5%, the slowest compare to 8.9% of the public sector and 10.3% of the non-bank private sector (Figure 12). In particular, the financial centres of the ASEAN+3 economies, Hong Kong and Singapore, experienced the most noticeable contractions in the claims to the banking sector. During the first quarter of 2012, foreign claims to the banking sector of Hong Kong and Singapore declined by

17.9% from a year earlier, in contrast to a positive growth of 12.1% for the public sector and 9.6% for the non-bank private sector. It is also noteworthy that among the three sectors, the banking sector of the ASEAN+3 had also suffered the worst sudden reversal of capital flows during the height of the 2008 Lehman Brothers collapse. The strength of the lending to the public sector, on the other hand, reflected the attractiveness of the sovereign debts of the emerging markets in the region.

Figure 12
Allocations of International Bank Lending



Source: BIS Database and AMRO Staff Calculation.

4.1.2 Regional Banks

While the focus of this study is on the implication of the global major banks' activities in the ASEAN+3 economies, it is however important to recognize the increasing role of the ASEAN+3 banks regionally and globally. The ASEAN+3 economies had turned into a net lender to the world since 2010, with an average net lending of around USD 465 billion per quarter as reported in the first quarter of 2012 (Table 4). With the exception of BCLM economies, the rest of the ASEAN+3 were net lender in 2011. According to the BIS database, the international claims of banks from five ASEAN+3 economies (Japan, Singapore, Hong Kong, Korea and Malaysia) reached around USD 4.05 trillion in the second quarter of 2011 or around 66% increase from the number reported in the first quarter of 2006 (Figure 13). The Japanese banks' loans continued to play a big role, making up slightly over 50% of the total international claims of this group of banks. From the second half of 2010 to first half 2011, the quarterly average of the year-on-year growths of the international claims from these countries' banks is reported to be above 17%.[9] Given their increasingly important presence, regionally and globally, understanding of the networks and interconnectedness of these ASEAN+3 banks should be greatly enhanced to assess potential challenges or concerns of their operations, particularly on the local and regional economies. With the exception of the Japanese banks, data on the cross-border lending activities of the regional banks are however publically inaccessible.

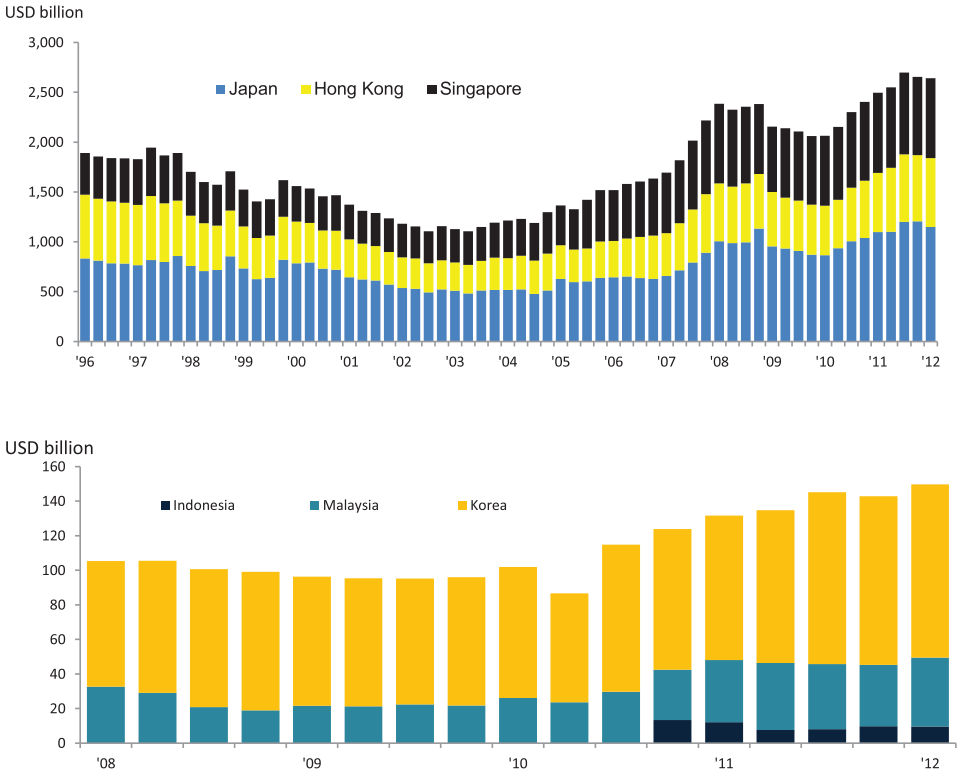
Table 4
Net Lending to the World

USD billion	**2011:q1**	**2011:q2**	**2011:q3**	**2011:q4**	**2012:q1**
ASEAN+3	411	493	561	396	466
ASEAN-5	75	82	82	70	72
Plus-3	321	352	388	298	376
BCLM	-4	-5	-4	-5	-5
Hong Kong and Singapore	19	64	95	33	22

Note: ASEAN-5 includes Indonesia, Malaysia, Philippines, Thailand and Vietnam. Plus-3 includes China, Korea and Japan. BCLM includes Brunei, Cambodia, Laos and Myanmar.
Source: BIS Database.

9. The banks from Malaysia have been the most aggressive one with quarterly average of year on year growth over 30%.

Figure 13
Outstanding Claims of Banks from Selected ASEAN+3 Economies



Source: BIS Database.

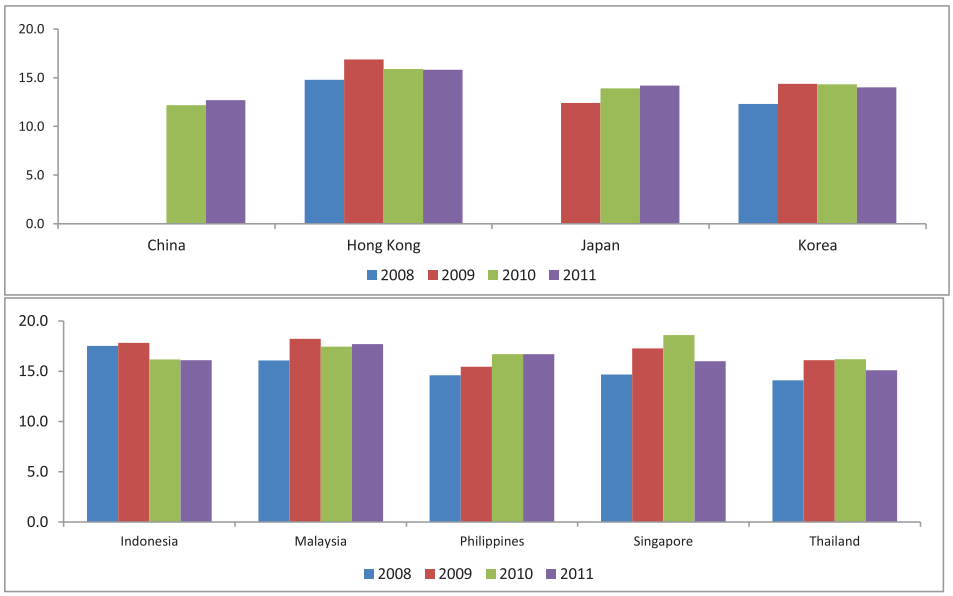
4.2 Strength of Bank Balance Sheet

4.2.1 Capital Adequacy Level

Banks in the region have generally held adequate capital. Even during the peak of the crisis, banks are able to maintain a sound level of capital, usually above 12%. Most banks, however, did experience a slight drop in capital adequacy level in 2010 or 2011, except for a few, such as those in Japan and Philippines, who have in general been able to slightly increase their capital adequacy recently (Figure 14). In addition, foreign banks in most parts of the region have maintained a higher capital adequacy level than their local counterparts (Table 5). For example in Philippines, the capital adequacy level of foreign bank branches and subsidiaries has been at least 5% higher than the national average. The situation is a little different in regional financial centres, where foreign banks did not always hold

a capital adequacy ratio above the local banks'. Furthermore, foreign banks' capital positions are affected differently by the current round of crisis. Banks with parents in Europe or US, such as HSBC and Citibank, have in general seen a larger magnitude of drop of capital in some economies (Indonesia, Hong Kong for example) during the crisis than other foreign banks in the ASEAN+3 region. This is partly explained by the deleveraging process unfolding in the advanced economies.

Figure 14
Regulatory Capital to Risk-Weighted Assets



Source: IMF-Financial Stability Indicator Database.

Table 5
Capital Adequacy Ratio of Selected Banks in Selected ASEAN+3 Economies

Capital Adequacy Ratio (in %)	Tier 1 Ratio						Total Capital Adequacy Ratio					
	2011	2010	2009	2008	2007	2006	2011	2010	2009	2008	2007	2006
Malaysia												
Malayan Banking Berhad - Maybank	17.5	13.4	14.3	11.5	9.8	9.7	13.4	12.5	14.3	12.7	14.1	12.6
HSBC Bank Malaysia Berhad	9.9	10.2	11.1	9.2	10.0	n.a.	13.6	14.4	15.8	13.4	15.1	n.a.
Standard Chartered Bank Malaysia Berhad	11.3	9.2	9.6	8.6	8.0	9.6	13.5	13.4	15.0	13.8	13.7	13.2
Deutsche Bank (Malaysia) Bhd.	14.4	16.9	15.0	14.5	n.a.	14.6	14.5	17.2	15.3	14.9	n.a.	15.0
Bank of Tokyo-Mitsubishi UFJ (Malaysia) Berhad	22.2	22.1	26.5	23.8	25.8	31.6	23.2	23.1	27.8	25.0	27.1	33.2
Citibank Malaysia (L) Ltd	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Indonesia												
Bank Mandiri (Persero) Tbk	12.4	10.1	12.4	12.8	17.0	19.1	15.0	13.4	15.4	15.7	20.8	24.6
PT Bank ANZ Indonesia	12.0	11.2	13.0	15.0	16.8	16.9	13.0	12.3	14.1	16.3	18.1	17.6
PT Bank Mizuho Indonesia	16.1	18.8	24.0	n.a.	n.a.	n.a.	17.3	20.0	25.1	19.7	26.6	25.3
Bank BNP Paribas Indonesia PT	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	56.9	76.9	70.9
Citibank (Capital Adequacy Ratio - with credit and market risk)							25.3	26.8	30.5	24.1	20.8	
Deutsche Bank (Capital Adequacy Ratio)							29.8	33.3	47.0	46.9	n.a.	
HSBC (Capital Adequacy Ratio)							17.6	13.2	19.1	12.0	14.6	
Standard Chartered (Capital Adequacy Ratio)							14.1	14.4	14.6	13.3	13.3	
Korea												
Kookmin Bank	10.3	n.a.	n.a.	n.a.	n.a.	n.a.	13.6	n.a.	n.a.	n.a.	n.a.	n.a.
Standard Chartered Bank Korea Limited	11.6	n.a.	n.a.	n.a.	n.a.	n.a.	15.6	n.a.	n.a.	n.a.	n.a.	n.a.
Citibank Korea Inc.	13.4	14.3	n.a.	n.a.	n.a.	n.a.	16.4	17.2	n.a.	n.a.	n.a.	n.a.
Philippines												
Philippines banking system: Capital Adequacy Ratio							16.3	16.0	14.9	14.7	14.7	
Foreign bank branches and subsidiaries: Capital Adequacy Ratio							21.6	21.9	19.4	22.5	21.3	
Existing foreign bank branches: Capital Adequacy Ratio							18.5	18.8	12.8	18.4	17.1	
New foreign bank branches: Capital Adequacy Ratio							28.9	29.5	35.2	34.9	32.1	
Foreign bank susidiaries: Capital Adequacy Ratio							19.6	18.0	19.1	17.0	23.3	
Thailand												
Bangkok Bank Public Company Limited	12.2	12.5	12.6	11.2	12.0	11.7	15.4	16.1	15.5	13.8	14.5	14.5
Siam Commercial Bank Public Company Limited	11.1	11.6	12.3	11.0	10.6	11.4	14.5	15.5	16.5	15.2	13.1	14.4
Kasikornbank Public Company Limited	9.6	9.4	10.3	9.8	10.7	10.5	13.8	14.0	15.2	15.1	14.6	14.7
United Overseas Bank (Thai) PCL	15.5	17.8	19.5	17.0	16.5	16.4	16.7	19.0	21.2	18.5	17.7	17.4
Standard Chartered Bank (Thai) Public Company Limited	17.1	15.1	18.3	12.1	13.9	n.a.	17.1	15.1	18.7	12.5	14.2	n.a.
CIMB Thai Bank Public Company Limited	7.7	9.0	6.0	3.6	0.8	4.1	13.0	14.7	12.0	5.8	1.5	6.0

CAR (in %)	Tier 1 Ratio						Total Capital Adequacy Ratio					
	2011	2010	2009	2008	2007	2006	2011	2010	2009	2008	2007	2006
Singapore												
DBS Bank Ltd	n.a.	n.a.	n.a.	10.1	8.9	10.1	n.a.	n.a.	n.a.	14.0	13.4	14.4
Oversea-Chinese Banking Corporation Limited OCB	14.5	16.3	16.0	14.9	11.5	13.1	15.7	17.6	16.5	15.2	12.5	15.8
United Overseas Bank Limited UOB	13.5	15.3	14.0	10.9	10.0	11.0	16.7	19.8	19.0	15.3	14.5	16.3
Citibank Singapore Limited	n.a.	n.a.	n.a.	13.1	11.8	n.a.	n.a.	n.a.	n.a.	13.2	11.9	n.a.
Hong Kong												
Hongkong and Shanghai Banking Corporation Limit	n.a.	11.7	12.2	10.3	8.8	12.3	n.a.	14.7	16.1	13.4	11.6	13.5
BOC Hong Kong (Holdings) Ltd	12.5	11.3	11.6	10.9	12.2	13.4	16.9	16.1	16.9	16.2	13.1	14.0
Bank of China (Hong Kong) Limited	12.5	11.3	11.6	10.9	12.2	13.4	16.9	16.1	16.9	16.2	13.1	14.0
Hang Seng Bank Ltd.	11.6	10.8	12.8	9.5	8.4	10.7	14.3	13.6	15.8	12.5	11.2	13.6
Standard Chartered Bank (Hong Kong) Limited	n.a.	10.9	14.4	11.7	10.5	n.a.	n.a.	12.8	14.4	13.1	13.2	14.9
DBS Bank (Hong Kong) Limited	12.2	12.7	12.6	9.8	11.4	11.6	14.5	15.2	15.6	13.1	15.1	15.9
Citibank (Hong Kong) Limited	25.9	20.7	28.3	14.4	13.7	14.8	27.2	20.7	29.1	15.2	14.3	15.4
Japan												
Bank of Tokyo - Mitsubishi UFJ Ltd (The)-Kabushiki	11.4	10.8	7.6	7.4	7.7	7.1	15.8	15.5	12.0	11.2	12.8	12.5
Sumitomo Mitsui Banking Corporation	14.3	12.3	9.2	7.6	7.2	5.6	19.2	16.7	13.5	12.2	13.0	10.8
Mizuho Bank	10.4	7.7	6.7	7.3	7.5	5.8	14.9	12.9	11.8	12.0	12.3	10.3
Citibank Japan Ltd	25.1	24.5	22.9	14.6	n.a.	n.a.	25.2	25.1	23.1	14.6	n.a.	n.a.

Source: Bankscope Database and Annual Reports.

4.2.2 Liquidity Position

Both foreign and local banks in general remain liquid. With few exceptions, the standard liquidity ratio (net loan to deposit ratio) of selected major local and foreign banks have in general been stable between 2006 and 2011 (Table 6). Nonetheless, a number of noticeable increases in the ratio suggest some deterioration of the liquidity position in recent years. More importantly, the marginal decline in the liquidity position has been widely reported by local, regional and

global foreign banks. As in the case of the CAR earlier, we do also find evidences that liquidity position of the European and the US banks in particular has fallen more substantially than that of the local or regional banks. Moreover, the liquidity position of the foreign banks relative to local banks varies across banks and host economies. In the case of the Philippines, the local banks are on average more liquid than the foreign banks. This is not necessarily the case however when we observe closely the cases of Indonesia, Hong Kong, Malaysia, Thailand and Singapore. The HSBC in Malaysia, Hong Kong and the Citibank in Singapore and Hong Kong for instance continued to maintain a relatively strong loan to deposit level, although noticeably higher than during the pre-2008 period. It should be noted however that these analyses are based on a rather limited available sample set of observations.

Table 6
Liquidity Position

Liquidity Ratio (in %)	Net Loans / Dep & ST Funding				
	2011	2010	2009	2008	2007
Singapore					
DBS Bank Ltd	74.5	73.5	69.3	73.0	66.4
Oversea-Chinese Banking Corporation Limited OCBC	72.4	74.9	71.8	76.0	68.5
United Overseas Bank Limited UOB	72.4	64.1	65.8	67.4	66.6
Citibank Singapore Limited	n.a.	40.8	38.2	22.7	21.8
Nomura Singapore Limited	n.a.	44.7	43.4	57.9	56.3
Hong Kong					
Hongkong and Shanghai Banking Corporation Limited	n.a.	53.0	43.3	45.1	43.9
BOC Hong Kong (Holdings) Ltd	54.5	47.9	55.4	52.3	48.2
Bank of China (Hong Kong) Limited	54.3	47.8	55.2	51.6	48.3
Hang Seng Bank Ltd.	63.5	65.3	51.7	53.5	52.8
Standard Chartered Bank (Hong Kong) Limited	56.6	56.5	42.1	44.1	47.9
DBS Bank (Hong Kong) Limited	86.5	74.8	69.8	71.8	64.6
Citibank (Hong Kong) Limited	47.2	38.8	30.1	33.3	28.1
Japan					
Bank of Tokyo - Mitsubishi UFJ Ltd	51.7	56.4	63.7	63.1	60.6
Sumitomo Mitsui Banking Corporation	56.9	65.0	68.2	71.1	74.1
Mizuho Bank	50.5	50.2	59.7	56.0	58.6
Citibank Japan Ltd	9.3	7.7	6.0	6.6	n.a.

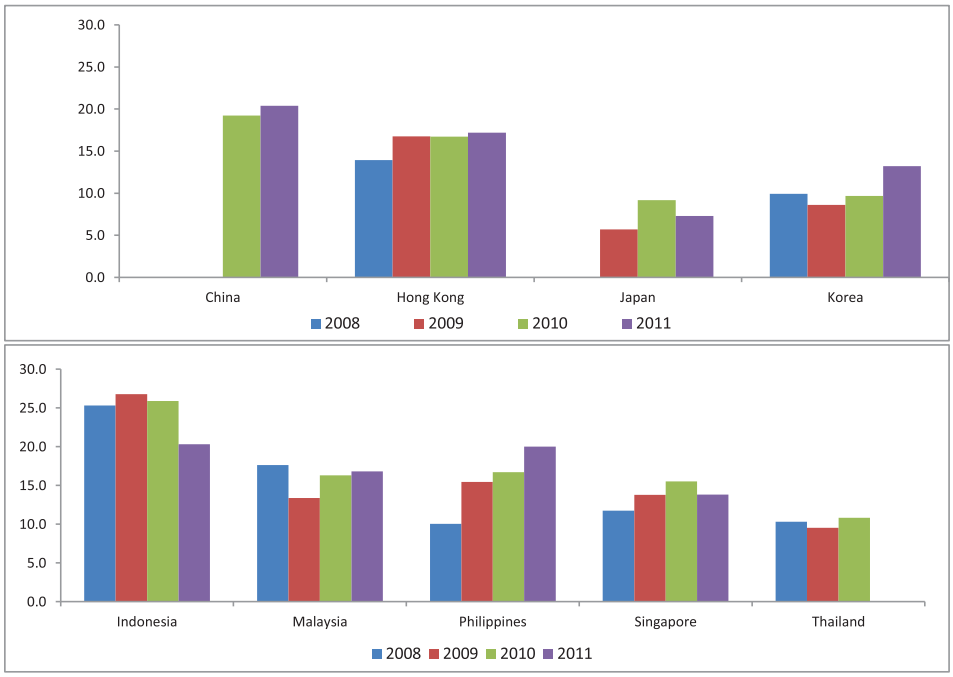
Liquidity Ratio (in %)	Net Loans / Dep & ST Funding				
	2011	2010	2009	2008	2007
Malaysia					
Malayan Banking Berhad - Maybank	77.8	76.4	74.6	76.8	67.5
HSBC Bank Malaysia Berhad	57.2	61.7	60.3	66.8	63.8
Standard Chartered Bank Malaysia Berhad	73.9	74.1	62.9	56.7	55.1
Deutsche Bank (Malaysia) Bhd.	10.5	8.8	9.6	14.0	10.0
Bank of Tokyo-Mitsubishi UFJ (Malaysia) Berhad	71.1	62.8	57.7	60.8	52.5
Citibank Malaysia (L) Ltd	n.a.	61.7	61.9	82.3	75.9
Indonesia					
Bank Mandiri (Persero) Tbk	69.2	63.3	56.0	54.4	48.3
Hongkong and Shanghai Banking Corporation Limited (The) - Indones	n.a.	n.a.	n.a.	n.a.	54.2
PT Bank ANZ Indonesia	76.8	78.7	72.7	83.2	59.6
Bank BNP Paribas Indonesia PT	n.a.	18.6	34.2	88.8	136.1
Citibank (Loan to Deposit Ratio)	66.7	69.2	73.6	79.5	70.8
Deutsche Bank (Loan to Deposit Ratio)	50.8	52.4	60.2	68.0	
HSBC (Loan to Deposit Ratio)	77.9	72.6	72.3	67.3	65.9
Standard Chartered (Loan to Deposit Ratio)	88.6	101.8	81.3	84.7	61.0
Philippines					
Philippines banking system: Gross loans to deposits	70	64.4	68.1	69.7	70.9
Foreign bank branches and subsidiaries: Gross loans to deposits	86.7	101.2	96.4	102.5	83.5
Existing foreign bank branches: Gross loans to deposits	81.9	99.9	95.2	97.5	80.7
New foreign bank branches: Gross loans to deposits	102.9	112	111	119	91.5
Foreign bank susidiaries: Gross loans to deposits	77	85.7	76.4	94.9	83.1
Thailand					
Bangkok Bank Public Company Limited	79.4	73.5	71.4	78.6	71.4
Siam Commercial Bank Public Company Limited	85.8	86.7	86.7	88.6	85.5
Kasikornbank Public Company Limited	88.1	87.9	86.1	81.0	88.4
United Overseas Bank (Thai) PCL	72.6	77.6	74.0	88.1	80.9
Standard Chartered Bank (Thai) Public Company Limited	52.4	55.6	47.8	47.9	45.2
CIMB Thai Bank Public Company Limited	83.5	79.5	72.6	48.1	49.6

Source: Bankscope Database and Annual Bank Reports.

4.2.3 Profitability

Banks have been able to remain profitable throughout the crisis. In some economies the return to equity level is relatively high at above 15%, such as Indonesia, China, and Hong Kong, while in others the levels can be more modest at 5-10%, such as Japan, Korea and Thailand (Figure 15). While profitability levels vary across the region, banks have been able to maintain decent returns throughout the crisis, even rising profitability in some economies such as Korea and Philippines. The net interest margin (NIM) as an important contributor to profitability has dropped in most of the countries since the start of the crisis, with some countries faring better than the others (Table 7).

Figure 15
Return to Equity



Source: IMF-Financial Stability Indicator Database.

Table 7
Profit Indicators

Profitability (in %)	Net Interest Margin						Return on Avg Equity					
	2011	2010	2009	2008	2007	2006	2011	2010	2009	2008	2007	2006
Malaysia												
Malayan Banking Berhad - Maybank	2.5	2.9	2.9	3.0	3.2	2.8	12.6	14.9	-1.7	13.7	17.5	16.3
HSBC Bank Malaysia Berhad	2.2	2.4	2.4	3.0	3.3	3.3	22.6	18.8	17.9	28.6	27.1	28.5
Standard Chartered Bank Malaysia Berhad	2.2	2.1	1.9	2.6	3.3	2.9	21.0	17.8	13.4	37.4	29.9	26.6
Deutsche Bank (Malaysia) Bhd.	2.5	2.5	1.9	2.0	2.2	3.4	4.0	11.1	9.7	15.2	16.5	16.4
Bank of Tokyo-Mitsubishi UFJ (Malaysia) Berhad	2.1	2.0	2.2	2.5	2.5	3.2	9.3	10.1	10.2	13.3	8.6	14.3
Citibank Malaysia (L) Ltd	n.a.	0.4	0.5	0.7	0.9	n.a.	n.a.	19.8	13.1	16.5	28.6	n.a.
Indonesia												
Bank Mandiri (Persero) Tbk	5.1	5.4	5.1	5.2	5.1	4.5	24.2	24.2	20.8	17.8	15.6	9.8
Hongkong and Shanghai Banking Corporation Limit	n.a.	n.a.	n.a.	n.a.	8.8	8.5	n.a.	n.a.	n.a.	n.a.	216.2	87.9
PT Bank ANZ Indonesia	7.6	8.6	6.3	7.8	9.5	9.7	12.4	9.4	1.2	20.9	16.9	16.4
PT Bank Mizuho Indonesia	2.4	2.7	3.1	3.3	3.5	4.3	8.8	12.8	11.1	11.5	11.3	14.8
Bank BNP Paribas Indonesia PT	n.a.	2.4	4.1	4.3	5.1	4.6	n.a.	6.7	16.8	17.0	10.1	12.5
Citibank*	4.1	4.8	6.7	7.7	8.4		19.1	23.5	25.3	28.1	33.2	
Deutsche Bank*	8.1	1.0	3.1	3.4			27.8	14.1	18.8	22.8		
HSBC*	5.3	5.4	7.9	8.7	9.5		16.3	18.3	11.0	14.4	13.9	
Standard Chartered*	4.6	3.7	4.1	5.2	3.7		18.9	10.5	16.9	19.6	23.1	
Korea												
Kookmin Bank	2.6	2.3	n.a.	n.a.	n.a.	n.a.	10.2	0.7	n.a.	n.a.	n.a.	n.a.
Standard Chartered Bank Korea Limited	2.6	2.3	n.a.	n.a.	n.a.	n.a.	5.2	6.6	n.a.	n.a.	n.a.	n.a.
Citibank Korea Inc.	3.1	2.7	n.a.	n.a.	n.a.	n.a.	8.5	9.0	n.a.	n.a.	n.a.	n.a.
Philippines												
Philippines banking system**							12.5	12.2	10.8	6.9	10.7	
Foreign bank branches and subsidiaries**							10.6	9	8.3	6.4	11.9	
Existing foreign bank branches**							9.8	13.5	12.3	8.9	19.4	
New foreign bank branches**							11	5.5	6.2	7.5	7.8	
Foreign bank susidiaries**							12.3	4.1	1.5	-5.4	-6.1	
Thailand												
Bangkok Bank Public Company Limited	2.9	2.7	3.1	3.6	3.3	3.4	11.6	11.7	11.2	11.9	12.3	12.5
Siam Commercial Bank Public Company Limited	3.4	3.2	3.6	4.0	4.0	4.0	21.2	16.4	15.5	17.8	16.5	13.6
Kasikornbank Public Company Limited	3.9	3.6	3.5	4.0	4.2	4.3	16.8	15.6	12.2	14.4	15.9	16.4
United Overseas Bank (Thai) PCL	3.0	3.2	3.5	4.0	3.8	3.8	0.4	3.6	2.8	5.6	-0.4	2.5
Standard Chartered Bank (Thai) Public Company Li	3.1	2.7	2.7	3.0	4.2	n.a.	10.5	5.7	6.3	9.2	8.3	n.a.
CIMB Thai Bank Public Company Limited	3.4	4.0	3.3	3.5	3.8	3.0	10.5	8.5	0.1	-67.9	-277.4	-69.2
** For Citi, Deutsch, HSBC and Standard Chartered in Indonesia, Return on Assets and Return on Equity from Annual Reports*												
*** Return on Assets and Return on Equity from A Status Report on the Philippine Financial System.*												

Profitability (in %)	Net Interest Margin						Return on Avg Equity					
	2011	2010	2009	2008	2007	2006	2011	2010	2009	2008	2007	2006
Singapore												
DBS Bank Ltd	1.8	1.9	2.0	2.0	2.2	2.2	10.6	6.5	8.8	9.1	11.1	12.1
Oversea-Chinese Banking Corporation Limited OCB	1.5	1.6	1.7	1.8	1.6	1.5	10.1	10.8	10.7	10.5	13.9	15.1
United Overseas Bank Limited UOB	2.0	2.2	2.4	2.4	2.2	2.1	10.5	13.3	11.0	11.7	12.5	16.2
Citibank Singapore Limited	n.a.	2.0	1.9	1.5	1.2	n.a.	n.a.	12.9	19.4	24.6	20.5	n.a.
Credit Suisse (Singapore) Limited	n.a.	n.a.	1.2	2.4	1.1	1.1	n.a.	n.a.	10.3	-3.7	17.1	18.8
Barclays Merchant Bank (Singapore) Ltd	n.a.	n.a.	3.6	2.4	1.7	3.5	n.a.	n.a.	18.1	24.4	25.4	85.1
Nomura Singapore Limited	n.a.	0.6	0.7	0.3	0.2	0.4	n.a.	-22.3	-56.7	3.4	5.9	10.7
Hong Kong												
Hongkong and Shanghai Banking Corporation Limit	n.a.	1.4	1.5	2.1	2.0	2.1	n.a.	20.6	21.0	24.7	27.5	22.6
BOC Hong Kong (Holdings) Ltd	1.6	1.6	1.7	2.1	2.4	2.1	16.6	14.8	14.9	3.3	17.4	17.0
Bank of China (Hong Kong) Limited	1.6	1.6	1.7	2.0	2.1	1.9	18.2	16.0	15.6	8.1	19.0	18.1
Hang Seng Bank Ltd.	1.8	1.7	1.8	2.3	2.2	2.0	23.6	24.7	26.3	29.2	38.9	29.0
Standard Chartered Bank (Hong Kong) Limited	1.6	1.5	1.8	2.0	2.5	2.7	21.0	15.8	14.2	18.1	24.6	22.6
DBS Bank (Hong Kong) Limited	1.6	1.7	2.1	2.0	2.3	2.7	10.6	11.1	13.2	11.1	17.6	18.1
Citibank (Hong Kong) Limited	2.6	2.7	3.2	3.8	3.4	3.4	11.1	9.5	17.4	36.4	53.7	38.8
Japan												
Bank of Tokyo - Mitsubishi UFJ Ltd (The)-Kabushik	1.1	1.2	1.3	1.3	1.2	1.1	8.6	5.3	-2.0	7.8	9.4	15.7
Sumitomo Mitsui Banking Corporation	1.1	1.2	1.3	1.3	1.2	1.2	7.7	7.3	-5.5	8.0	9.2	14.9
Mizuho Bank	0.9	1.0	1.0	1.0	1.0	0.9	7.1	3.0	-17.6	10.0	9.7	8.8
Citibank Japan Ltd	0.9	1.0	0.9	0.6	n.a.	n.a.	4.4	4.0	9.2	9.1	n.a.	n.a.
Barclays Capital Japan Limited	n.a.	0.0	0.0	0.0	n.a.	n.a.	n.a.	0.7	-6.3	1.3	n.a.	n.a.
Société Générale Private Banking (Japan) Limited	n.a.	n.a.	n.a.	n.a.	0.4	0.2	n.a.	n.a.	n.a.	n.a.	-18.7	-28.5

Source: Bankscope Database and Annual Reports.

Most foreign banks exhibit a lower profitability than their local counterparts in recent years. This is perhaps not surprising in most economies in this region, particularly wherein foreign banks only control a modest market share and usually

maintain a higher capital adequacy level than the local banks. Moreover, the profitability of the foreign banks largely depends on their business locations rather than parent bank origins. Although banks in advanced countries such as US or Europe are hit harder than banks in other places, the performance of their subsidiaries or branches in the ASEAN+3 region is largely determined by the local business conditions, and do not show significant higher volatility of profitability. Despite the swings their parent banks are experiencing in terms of capital and profitability, the foreign bank branches or subsidiaries in the ASEAN+3 region have seen steady profitability during the crisis (although slightly lower in some economies). Some foreign banks have achieved higher profitability in the recent years, such as in the Philippines and Thailand, which is generally in line with the overall profitability development in the banking sectors of the respective countries. This suggests that the profitability of foreign bank branches or subsidiaries in this region is perhaps less affected by the performance of their parent banks but more by local factors, particularly the growth rate of the host economies.

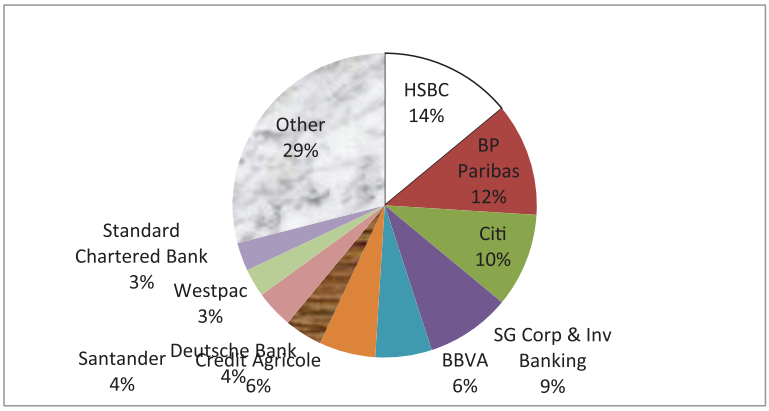
4.3 Trade Financing

Two key factors have frequently been underlined by early studies as root causes of poor export/trade performance of the East and Southeast Asian economies at the height of the 1997 East Asian crisis. The first factor is the exchange rate risk, and the second is the scarcity of short-term trade financing facilities. Accompanying the sharp fall in global trade, the joint IMF–Banker's Association for Trade and Finance (BAFT) survey found the decrease in the value of trade finance accelerated between October 2008 and January 2009 in almost every region of the world (BAFT, 2009). Furthermore, the World Bank estimates that 85–90% of the fall in world trade since the second half of 2008 is due to falling international demand, and 10–15% is attributable to a fall in the supply of trade finance (Auboin, 2009). Claudio (2008) further claimed that the role of trade financing has been strengthened by the structure of production lines through regional supply chains and the move to the greater cross-border dispersion of component production and assemblies within vertically integrated production processes in Asia. A recent work (Siregar, 2009) on the experiences of Indonesia, Thailand and Korea from 1993 to 2009 confirmed the importance of trade financing on the overall export performance of these three economies.[10]

10. The study finds that a 1% drop in the trade finance could lead to around 0.2-0.4% drop in exports. Furthermore, the study also claims that the more developed a country's financial sector the more significant the role of trade financing would likely to be.

Wholesale funding activities, especially in the areas of trade and project financing, remain a concern in the event of a prolonged deleveraging by the advanced economies' lenders. Banks and non-bank financial institutions from major European economies, in particular from the UK, Germany, France and Spain, have long been the major providers and underwriters of trade financing to emerging markets in Asia and Pacific (Figure 16). Based on the March 2012 BIS report, trade and project financing activities of Eurozone lenders have been most affected by the deleveraging process. While total lending globally by the weaker European banks were scaled back by about 15% in the second half of 2011, project and trade financing were reduced by 39% and 23.5% respectively. The larger proportions of cuts in trade and project financing were also reported by many Eurozone lenders.

Figure 16
Export Credit Agency Backed Trade Finance in Asia

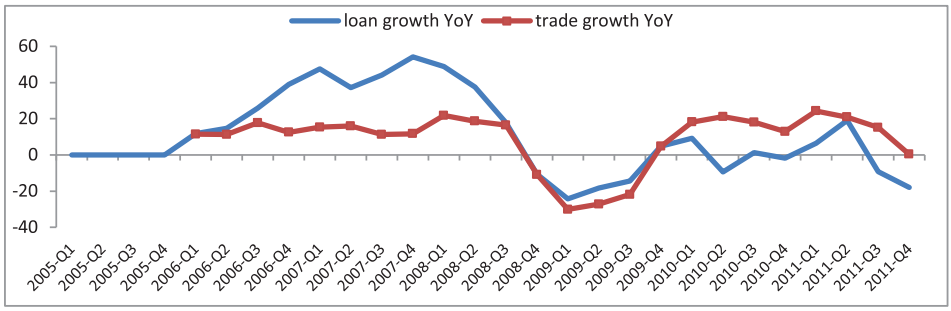


Source: Barclays Capital.

Assessing the full impact of on-going Eurozone bank deleveraging on trade financing and subsequently on trade performance is challenging in the absence of detailed information and data on the different types of loans (including trade and project financing) that have been extended to ASEAN+3 economies. However, a straightforward mapping of the growth rates of the bilateral bank lending from four major Eurozone economies and the ASEAN-5 economies and Korea, and of the bilateral trades (exports and imports) between the same sets of economies visibly signal a high degree of co-movements between them, especially since 2005 (Figure 17). A similar co-movement between bilateral loans from the UK banks to ASEAN-5 and Korea and bilateral trades between UK

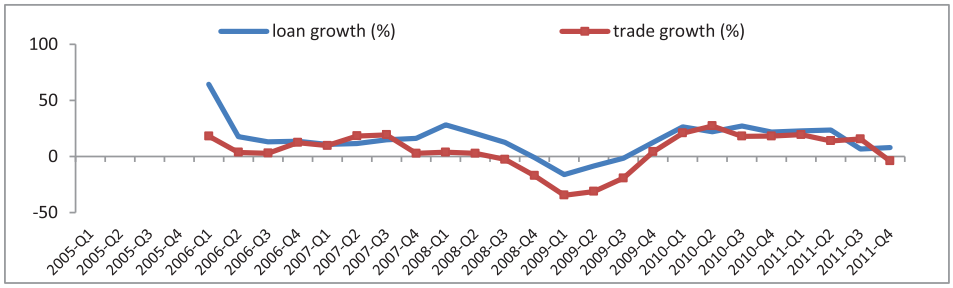
and the same set of Asian economies is well traced during the same period (Figure 18).

Figure 17
Bilateral Lending and Trade of Four Eurozone Economies and ASEAN-5 and Korea



Note: Four Eurozone economies are France, Germany Spain, and Netherlands. ASEAN-5 includes Indonesia, Malaysia, Philippines, Thailand and Singapore. All growth rates are in percentages.
Source: AMRO Staff Calculation, BIS Database and CEIC.

Figure 18
Bilateral Lending and Trade of UK and ASEAN-5 and Korea



Note: ASEAN-5 includes Indonesia, Malaysia, Philippines, Thailand and Singapore.
Source: AMRO Staff Calculation, BIS Database and CEIC.

The parallel movements of the trade and lending series arguably point to either bilateral trade activities lead to higher demand for bilateral bank lending or vice-versa, and therefore corroborate the claims that a portion of the lending by the global banks is directly associated with trade financing. A set of pair-wise granger causality testing confirms the two-ways relationships between lending and trade (Table 8). As much as bilateral trade activities between the ASEAN+3 economies and the major global trading partners (US, UK, Japan and Euro) could have induced more demand for trade financing, the availability

of trade financing facility may have also further fuelled bilateral trade activities between these economies. The Granger-causality test, in particular, confirm that the availability of financing has boosted bilateral trade activities between selected ASEAN+3 economies with their key global trading partners (US and UK) with about 2-4 quarters lag. This set of test results supports the early stylized fact that the US and the UK banks are important suppliers of trade financing to the ASEAN+3 region. On the other hand, the granger causality test results found a less significant role of the Eurozone bank lending in explaining bilateral exports with this small subset of the ASEAN+3 economies (Table 8). Unfortunately, long enough individual time-series data on loans for trade and project financing for ASEAN+3 economies are not publically available for the testing to be carried out in a more comprehensive manner.

Table 8
Granger-Causality Testing for Bilateral Export and Lending
(Period: 2000:q1 – 2011q4)

a) Bilateral Export Does Granger-Cause Bilateral Lending

				Eurozone		
	US	**UK**	**Japan**	**Germany**	**Italy**	**Spain**
Indonesia	Yes	No	Yes	No	No	Yes
Korea	No	No	Yes	Yes	No	No
Malaysia	No	Yes	Yes	Yes	No	No
Philippines	No	Yes	No	Yes	No	No
Thailand	No	No	Yes	No	No	Yes

b) Bilateral Lending Does Granger-Cause Bilateral Export

				Eurozone		
	US	**UK**	**Japan**	**Germany**	**Italy**	**Spain**
Indonesia	Yes	Yes	Yes	No	No	No
Korea	Yes	No	Yes	No	No	Yes
Malaysia	Yes	Yes	Yes	Yes	No	No
Philippines	Yes	Yes	No	No	Yes	Yes
Thailand	Yes	Yes	No	Yes	Yes	No

Source: AMRO Staff Calculation.

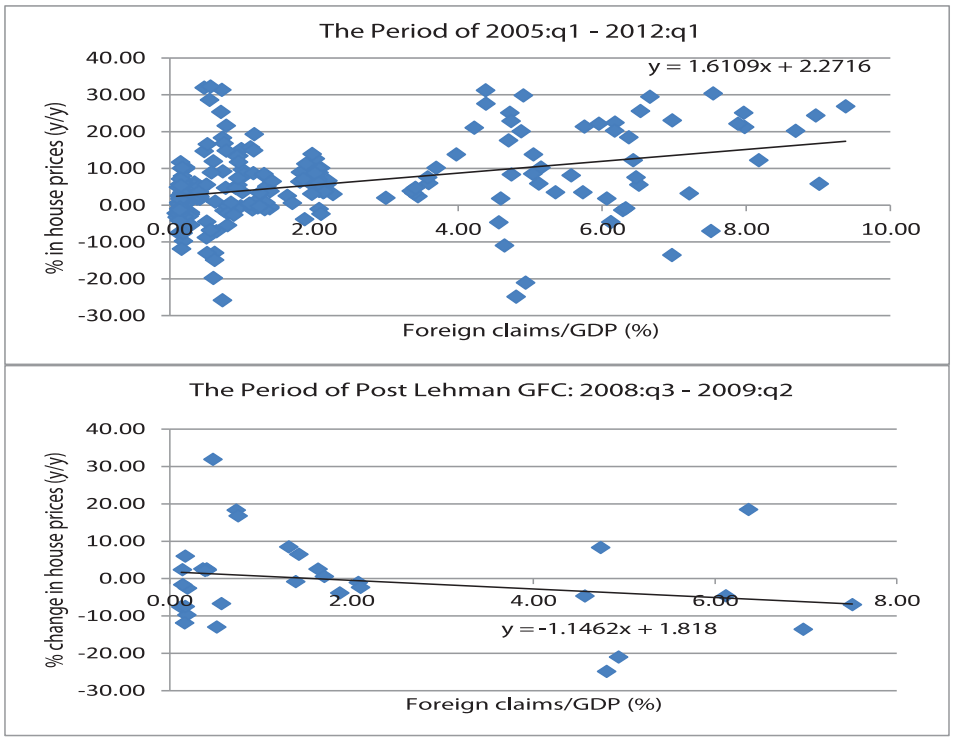
4.4 Asset Markets: Boom and Bust Factors

The strong relation between asset prices and bank lending has long been spotted, particularly during periods of severe economic and financial crisis. Real effects are particular grave if a bubble occurs in the real estate market, but stock prices can experience substantial declines as well. Two ways of transmission of shocks have been reported. One way is for the asset price slump to affect balance sheets of banks and therefore their lending capacities. Reciprocally, a dry-up in liquidity/funding due to a sudden pull-out in the bank lending (including those of the foreign banks) could lead to falling asset prices. Seminal studies in this topic are on the great depression period (Bernanke, 1983 and 1995) and on the East Asian crisis (Stiglitz and Greenwald, 2003).

As in other parts of the globe, foreign bank lending potentially contributed to the general rising residential house price level in ASEAN+3 economies. The annualised quarterly growths of residential house price in selected ASEAN+3 economies (Indonesia, Malaysia, Philippines, Thailand, Singapore, China, Hong Kong, Korea and Japan) since 2005 are found to be positively related to the exposure levels of those economies to the foreign bank lending (Figure 19). A closer observation also reveals that during the boom period of the foreign bank lending to East Asia from 2005 to the second quarter of 2008, foreign bank lending and residential property rose in tandem. On the other hand, a reversal or pull-out of these lending immediately after the Lehman collapse seems to be followed closely by a period of housing price correction within 1-2 quarters. This was particularly apparent in Hong Kong, Singapore and to some extent Malaysia and Thailand, but less in Indonesia and the Philippines.[11] Unfortunately, the limited observation set does not allow us to robustly test the causality between lending and property price, particularly for the crisis period.

11. A more in-depth research to understand the link between real estate price and foreign bank lending is warranted. In particular, one may want to look into the breakdowns of the foreign bank lending to understand the share that goes to the property market.

Figure 19
Global Bank Lending Exposure and Residential Property Price



The interconnectedness between the asset markets and the global banking sector is also evident from the recent performance of stock exchange markets within the ASEAN+3 region. As demonstrated in Figure 20, the performance of the stock markets of selected non-financial centre ASEAN+3 economies in 2009-2010, following the Lehman Brothers debacle, appears to be negatively affected by their exposures to the claims of the global banks (Figure 20). In particular, the more exposed the financial sector was to foreign bank cross-border lending, the more severe the losses in these respective stock markets. A similar trend is reported during the recent Eurozone sovereign debt turmoil in 2011. The negative relationship seems to be more pronounced when we focus for the case of Eurozone banks' lending in 2011.

Figure 20
Global Bank Lending Exposure and Stock Exchange Performance

Source: CEIC Database and BIS.

5. Practical Implication to Banking Regulation and Monetary Policy Management

5.1 Strengthening Supervisory Capacity: Beyond Local Jurisdiction

Following the 1997 East Asian crisis, the collapse of banking sectors in a number of East Asian economies underscored the inadequate supervisory capacities in our region. The shortcoming was partly due to the failure to keep up with the reform and the development of the banking sector. Not only that the sector quickly opened up to the foreign banks, but with the accompanied reform of the capital and insurance markets, banks are providing services beyond the conventional banking activities, such as offering investment instruments/ derivatives and insurance policies. The emergence of the "supermarket" banks warrants a closer integration among the financial market supervisory agencies in the domestic economy.

Fast forward more than a decade later, the challenges facing financial sector supervisors become more complex globally, including those in the emerging markets of East and Southeast Asia. The banking sectors are not only deeply interconnected regionally, but also globally. As elaborated, the local and regional banks have not only borrowed heavily from, but also extended loans to global banking system. The traditional global banks, such as the HSBC and the Standard Chartered bank, have increasingly become regional banks[12]. At the same time, many of the ASEAN banks, such as the DBS, OCBC, UOB, MayBank and the CIMB, have become regional and global banks. The need to integrate financial market supervisory agencies is no longer a domestic issue. Given the cross-border nature of these banks' operations, the regular supervision on domestic activities of these banks will not be sufficient to assess the overall risk exposures. There are a number of lessons from the recent global financial crisis that underscore the importance of establishing a closer coordination among banking supervisors across the borders.

To start, a much more in-depth research needs to be undertaken to fully grasp the interconnectedness of the domestic banking sector, regionally and globally. Mapping the networks and degree of integration of the regional banking systems is urgently needed before even formulating steps to enhance the supervisory capacities of the networks. This study has so far identified potential areas of issues that need to be further examined. The lack of timely and publically

12. As discussed and will be elaborated more, these banks' operations in ASEAN+3 become more independent from the Headquarters of these banks.

available data on the detailed breakdowns of foreign bank lending directed for trade and project financing inhibits efforts in conducting more in-depth analyses on the lending activities of the foreign banks. Furthermore, data on the lending activities of the regional banks are not publically available. While the frequently visited BIS database reports bilateral lending from the advanced economies' banks to most individual ASEAN+3 economies, no disaggregated level of lending data to various destinations, particularly to the ASEAN+3 economies, is reported for Singaporean, Malaysian, Korean and Indonesian banks. In fact, only the bilateral lending of the Japanese banks is regularly reported at this time. Without these valuable information and data, potential contagion or spill-over within the banking sectors of the region and the world will likely be underestimated.

The recent global events also demonstrate that the economic cost of gaps in regulation across banking supervisors across economies will likely be amplified. A tougher set of regulation by the Financial Service Authority in UK introduced in the past two years, including on mode of entry (branch or subsidiary) and more rigorous liquidity rules, has resulted in international banks pulling out big shares of their activities away from London to other European economies with less-regulated financial markets. Expansion of global banks has increasingly been influenced by the rules and regulations of domestic supervisors relative to their foreign counterparts.

Another concrete lesson from the recent sovereign debt crisis in the Eurozone area is on the design of legal framework to inject emergency funds required to bail-out trouble banks. Given the cross-border networks of the banks, any bail-out programme must be coordinated across the border. An important hurdle of the bail-out programme in the European economies is with the lack of cross-border integrated supervisory capacity to fully assess the extensiveness of the bail-outs needed. The failure to mitigate the impacts of the Lehman-Brothers' debacle in 2008 for instance could arguably be attributed to the lack of cooperation between the supervisors in the US and the UK. Hence, building trust through deepening cooperation among supervisors across the borders is critically vital to manage this increasingly interconnected banking system.

5.2 Managing Monetary and Exchange Rate Stability Amidst Global Stimulus

The monetary and exchange rate policy stances of central banks, particularly for major advanced economies, have frequently been swiftly transmitted to other part of the world through this globally integrated banking system. The transmission of the "policy shocks" has made conducting monetary and exchange rate policy

arguably to be even more complex, particularly for the recipient economies. A study done by Ceterolli and Goldberg (2008) for instance finds the globalisation of banking in the United States is influencing monetary transmission mechanism both domestically and in foreign markets.

A similar experience has also been reported from the recent quantitative easing measures by the US Federal Reserve. It is estimated around USD 236 billion total private capital have flowed out per quarter from the US Federal Reserve quantitative easing measure (QE-1) and about USD 278 billion per quarter during the first two quarters of QE-2 (Table 9). These rates are higher than the average of USD 204 billion per quarter during the period with no QE measure between November 2009 and October 2010. A slightly above 20% of these total capital outflows were eventually absorbed by the Asia-Pacific economies. As demonstrated in the Table 9, a fair share of the increase in the private outflow during the second quantitative easing (QE-2) was in the form of other private claims, namely via international bank lending.

Table 9
US Gross Private Capital Outflows Following Past QEs

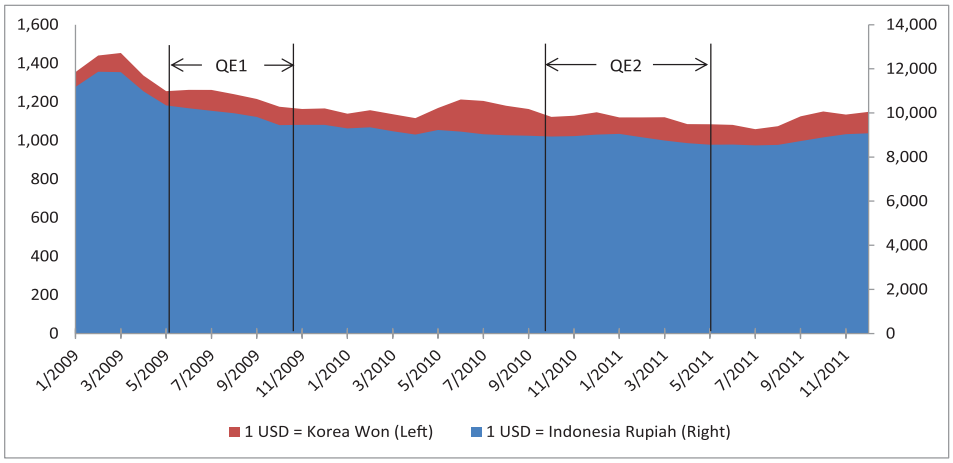
Quarterly Average in USD billion	**QE-1**	**QE-2***	**No QE****
Direct Investment	-80.8	-85.9	-86.0
Portfolio Investment	-74.1	-50.8	-37.6
Other Private Claims	-82.0	-141.6	-81.2
Total	-236.9	-278.3	-204.8

Note: */QE2 includes data on the first two quarters. **/ No QE covers the period of Oct 2009-Sept 2010. Source: U.S. Bureau of Economic Analyses and Morgan (2011).

There are obvious and wide implications of these stimulus measures for the monetary and exchange rate policy management across the globe, including the emerging markets of East and Southeast Asia. To start, a weaker USD against major currencies around the world was reported in the past QEs. The US dollar was on average hovering around 0.687 and 0.757 against the UK pound sterling and the euro, respectively, during the three months period prior to implementation of the QE-1. By the final three months of QE-1, the US dollar has depreciated by almost 11% against the UK pound sterling and 9.2% against the euro. As for the final three months of the QE-2, the US currency weakened by around 6% against the pound sterling and the Japanese yen, and at around 11.6% against the euro from the average rates reported during the last three months prior to the implementation of the QE-2. Similar general trends were reported in

currencies of major Latin American economies such as Brazilian real, Mexican peso and the East and Southeast Asian currencies such as Korean won and Indonesian rupiah (Figure 21). The strong domestic currency against the US dollar and the weak demand due to slow GDP growth impose risk to the competitiveness of export products of these emerging markets. Many central banks, including in the East and Southeast Asian region, had to intervene and manage the appreciation pressure and volatility of the local currencies, and absorbed the balance sheet costs of these intervention.

Figure 21
Quantitative Easing and the US dollar Rates



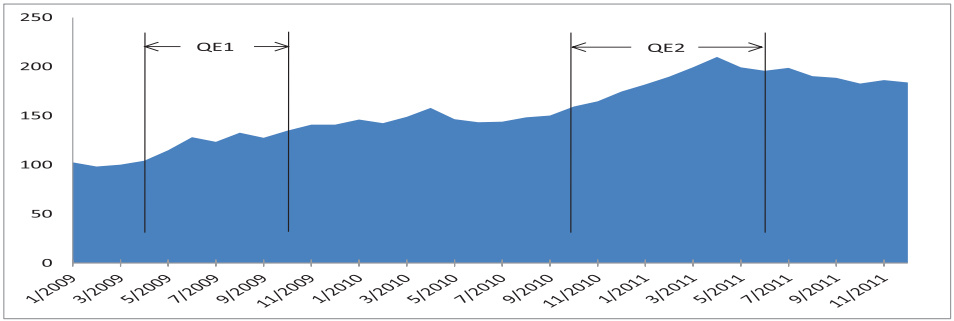
Note: An increase in the rate implies an appreciation of the US dollar.

Source: CEIC Database.

Furthermore, managing asset bubble and headline inflation have become more complex as well amidst these global stimulus. As discussed earlier (and demonstrated by Figure 19), international bank lending has fuelled a rise in the residential property price. In addition, a rise in the past quantitative measures underpinned rising commodity prices, and potential similar consequences of the latest QE should also be anticipated. The world commodity price index rose as much as 29.4% and 31.7% at the peak reached in October 2009 for the QE-1 and April 2011 for the QE-2, respectively, from the levels one month prior to the implementation of those policies (Figure 22). The rise was particularly felt in the energy sector with the commodity fuel price index rose well above 40% during each of the two QE episodes. The combination of surges in the asset and commodity prices contributed to the unanchored inflation expectation and thus

complicated further the management of price stability in many economies across the globe, particularly those experiencing massive inflows of the private capitals. In the second half of 2012, we witnessed announcements and implementations of multiple stimuli by the monetary authorities/central banks of the advanced economies (Box 1). The combination of stimulus efforts will undoubtedly make the management of monetary and exchange rate policies even more complex for the regional central banks in Asia.

Figure 22
Global Commodity Price Index*



Note: */this index includes both fuel and non-fuel commodities.

Source: IMF.

Box 1: Recent Monetary Easing Measures in Major Advanced Economies

The Federal Reserve (Fed) embarked on QE3 in September 2012 and anticipated the low federal funds rate to stay till at least mid-2015. The newest round of quantitative easing would involve monthly purchase of additional $40 billion of agency mortgage-backed securities, and no ceiling or end date was set. The length of the program would hinge on development of labor market. Meanwhile, the Fed would continue with its Operation Twist program which started in late 2011 with $ 400 billion and expanded by another $267 billion in June 2012. The Fed also anticipates the federal funds rate to remain at 0-0.25 percent till at least mid-2015.

The European Central Bank (ECB) announced Outright Monetary Transactions (OMT) in August 2012 as the latest easing efforts to improve financial conditions and stimulate growth. The OMT would replace the Securities Markets Programme (SMP) which was originally introduced in May 2010 and has accumulated a stock of $ 270 billion. The major difference between OMT and SMP is that purchase under OMT would be conditional on EFSF/ESM program. Moreover there is no preset limit on the size, and the coverage would be shorter term bonds (mainly sovereign) at the 1-3 year maturity.

The Bank of Japan (BoJ) boosted the Asset Purchase Program by 5 trillion yen in April and 10 trillion Yen ($128 billion) in September 2012. The program was first established in October 2010 with a size of 35 trillion yen, and aimed to enhance monetary easing by reducing long term market interest rates and risk premiums. Since then the program was expanded several times and currently has a size of 80 trillion yen. At the same time, the BoJ would continue its zero interest rate policy adopted since October 2010.

The Bank of England (BoE) activated the Extended Collateral Term Repo (ECTR) in June and increased the Asset Purchase Facility (APF) by £50 billion in July 2012. The ECTR is a contingency liquidity facility launched in December 2011 that enables the BoE to provide liquidity with a much wider range of collaterals than in normal indexed long term repo operations. The BoE would conduct the operation at least once a month with a minimum size of £5 billion.

5.3 Branch versus Subsidiary: Does It Matter?

Subsidiarisation has attracted much recent policy interest as a means of "ring-fencing" domestic banking sector from external shocks. Early works such as Mihaljek (2010) and Fietchter et al. (2011) claim that the attraction of being able to easily ring-fence the assets of subsidiaries of foreign banks as opposed to foreign bank branches arguably leads banking regulators to favour an organizational bank structure comprised mainly of subsidiaries rather than branches. Other studies noted however that subsidiarisation of foreign banks in an economy does not, by itself, necessarily reduce cross-border capital flows, both between the subsidiary and its head office and related bank group branches, or with other banks. The pros and cons of adopting subsidiary structure over branch vary as summarised in Table 10. From the bank's perspective, the debate ranges from the cost of doing business to the overall degree of independent

cash-flow management. Opening a branch for instance would cost the group less than establishing a subsidiary. Yet, the subsidiary structure may work well, especially for retail banks, as it may benefit from a local and more independent management team that has a deep understanding of the local market and a greater ability to obtain local funding.

Table 10
Summary of Perspectives on Branch versus Subsidiary

Branch	Subsidiary
Bank Perspective	
• Free flow of intra-group capital and liquidity with integrated organizational and risk management. • Costs of doing business may be lower under the branch structure than under the subsidiary structure. • Enable the banking group to mobilise and re-direct funds from healthy affiliates to an affiliate that finds itself in trouble due to country-specific shocks, or to draw on excess capital/liquidity of an affiliate at times of stress for the parent. • Losses incurred by an affiliate or the parent could, in principle, be isolated from the healthy parts of the group. • For a global universal bank, the branch structure that facilitates cross-border inter-affiliate funding would assist in the provision of a broad range of services to large corporate clients around the world. • Branches allow global banks to manage liquidity more efficiently at the group level. • Counterparty and liquidity risks reduced through internalization of clearing and settlement of securities and cash payment obligations.	• Independently managed affiliates that are financially and operationally self-sufficient. • Maintaining greater self-sufficiency of affiliates requires that each affiliate hold higher capital and liquidity buffers to limit the likelihood of failure. • Parent bank prevented from taking swift action due to certain restrictions on moving capital and liquidity from a subsidiary in one country to a parent or a subsidiary in a different country. • Better able to continue as a going concern should other parts of the group, or the parent, fail or have to be resolved. • For a global retail bank, greater importance attached to the access to local deposit guarantees and a relatively lower weight assigned to large exposure limits. • The subsidiary structure may work well for retail banks, as it may benefit from a local management team that has a deep understanding of the local market and a greater ability to obtain local funding.
Policymaker Perspective (Host Country)	
• Branches could provide host country borrowers with easier access to foreign credit.	• The subsidiary model could be better for local market development as subsidiaries are more likely to rely on local savings.

• The host country is better off with the branch structure if facing a shock to the domestic economy or the financial system as the branch structure entails stronger commitment, in principle, on the part of the parent bank to support its affiliates. • In the event that an affiliate operating in a host country falls into distress, the host country would have a relatively lighter obligation and burden when dealing with a branch, which is the responsibility of the parent bank and home authorities, than with a subsidiary.	• Supervisory control and oversight responsibility of the host country are greater under the subsidiary structure. • Subsidiary structure permits host country supervisor to impose the regulations that could protect the depositors of the institutions doing business in their jurisdiction. • The host country is better off with the subsidiary structure when facing adverse external shocks as it is easier to ring-fence the subsidiaries of foreign banks than their branches. • Organising banking groups as a constellation of separate legal subsidiaries may facilitate implementation of recovery and resolution plans that provide systematic and holistic blueprints to facilitate orderly wind-down of systemically important financial groups in the event of failures.

Furthermore from the perspective of the supervisor of the host economies, financial stability benefit of subsidiary or branch may in fact be influenced by the origin of the economic and financial turbulence.

- *If the parent bank in the home jurisdiction or head office-related entities run into liquidity or solvency problems*: a ring-fenced foreign bank subsidiary may be more isolated from these problems elsewhere in its bank group. The subsidiary holds its own assets and capital that are legally separate from the parent bank. The parent bank and creditors of the parent bank have no recourse to the assets of the subsidiary, and can only recover the capital that the parent bank has invested in the subsidiary after creditors and deposits of the subsidiary have been paid. The host jurisdiction banking regulator also has greater control over the liquidation of the subsidiary.

- *If the foreign bank subsidiary in the host jurisdiction runs into liquidity or solvency problems (that are unrelated to the parent bank):* the flip-side of ring-fencing is that the subsidiary may be perceived to have less support from the parent bank and its bank group, and also from the home jurisdiction regulator. This places the burden of lender-of-last resort on the host jurisdiction regulator.

Local economic conditions of the host and home countries also influence significantly the performance of the subsidiary and branch of the global banks. During the past economic and financial crisis, originated predominantly from the emerging economies, foreign bank's branch and subsidiary performed more robustly and efficiently than domestic commercial banks, as demonstrated by a more stable lending and a more aggressive action against bad loans. However during the recent global financial crisis, the branch and subsidiary of the foreign banks in general cut back their bank lending more aggressively, particularly in Eastern Europe. Furthermore studies have also reported a high presence of foreign bank increases exposure of host economies to cyclical conditions in the home countries of those banks.

Furthermore, it is not clear that the market differentiated between branches and subsidiaries of a bank group that was in trouble during the recent global financial crisis. A classic example is the case of the Lehman Brothers. The loss of confidence in Lehman Brothers affected both branches and subsidiaries alike, leading to the collapse of the whole group. Similarly, based on the balance sheets of a number of major foreign banks in the ASEAN+3 region (listed in Table 2), both subsidiaries and branches seem to weather their crisis equally well. As reported and discussed earlier, capital adequacy levels in general remain above Basel II and in some cases of the Basel III requirements. Furthermore, these foreign banks continued to sustain profit amid the volatile global financial market. As far as their lending and liquidity position, our limited observation fails to detect a significant gap between subsidiary and branch. Nonetheless, a more in-depth research with a much more comprehensive data of the banking system of the region is urgently needed to generate a more conclusive finding.

To manage any potential high cost of bail-out, the United States Federal Reserve in December 2012 proposed that the policy on the foreign banks be tightened to protect taxpayers from having to bail them out. The US has traditionally relied on foreign supervisors to watch overseas banks, allowing them to hold less capital than their domestic counterparts. The 2010 Dodd-Frank broad overhaul of the US financial landscape put an end to that policy, after the Federal Reserve was forced to extend hundreds of billion dollars in emergency loans to overseas banks in the financial crisis. The recent move will require foreign banks to group all their subsidiaries under a holding company, subject to same capital standards as US holding companies.

6. Brief Concluding Remarks

As clearly demonstrated in a recent global financial crisis, the economic shocks from one part of the world can swiftly be transmitted to another via both trade and financial channels. For the emerging markets of the ASEAN+3 economies, banking remains a key transmission channel of shock through the financial sector. The increasing presence and importance of the foreign banks in the domestic economy have not only been beneficial, but have also increased the exposure of the local economy to volatilities of the global financial markets.

The objective of this study is to identify a number of features and characteristics of foreign banks' activities in East and Southeast Asian economies. In particularly, the study highlights certain key fundamental challenges facing the regulatory institution and central banks in dealing with these global banks. There are a number of regulatory and supervisory adjustments to be considered nationally, regionally and even globally. At these different levels of policy formulations, designs and implementations are increasingly needed to be carried out in a coordinated manner to maximise the effectiveness of the measures given the highly integrated banking system. Concurrently, it is also important to recognise that over-regulated banking system could potentially limit the benefits of having foreign banks for the domestic economy.

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ROLE OF CENTRAL BANKS IN SUPPORTING GROWTH IN A LOW GROWTH ENVIRONMENT

By
Dr. Sukhdave Singh[1]

Bank Negara Malaysia *Central Bank of Malaysia*

Role of Central Banks in Supporting Growth in a Low Growth Environment

Dr. Sukhdave Singh
Assistant Governor
Bank Negara Malaysia

SEACEN-CeMCoA/BOJ High-level Seminar on
Finding Asia's New Sustainable Growth Model Post AEFC: The Role of Central Banks
6-7 November 2012

BANK NEGARA MALAYSIA
CENTRAL BANK OF MALAYSIA
1

1. Currently Deputy Governor of Bank Negara Malaysia.

Outline of Presentation

Does Asia need a new growth model?

- Post-Crisis Environment facing EMEs in Asia
- Implications for Asian EME Growth and Development Policies

Role of central banks

- ~~Monetary & Financial Stability~~
- Financial Sector Development
- Financial Inclusion (include. SMEs)
- Consumer Protection & Education
- New Growth Areas
- Regional Financial Integration

Views expressed are my own and do not necessarily represent the official views of Bank Negara Malaysia

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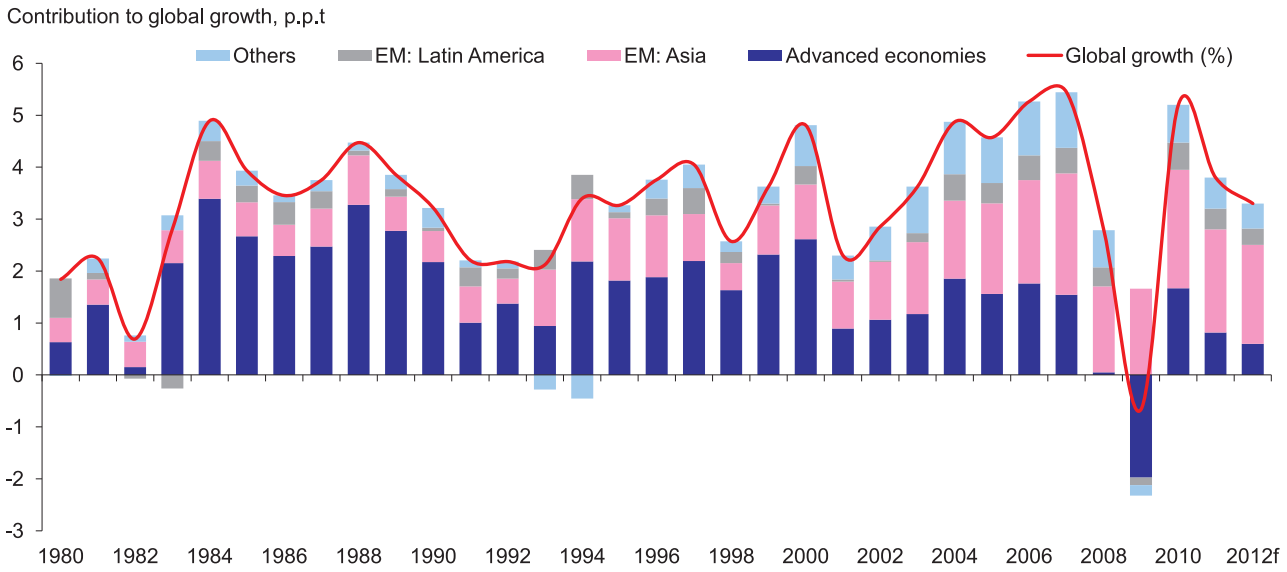
EMEs as the new growth centres



Source: IMF World Economic Outlook, January 2012

Outlook: Growth in many advanced economies affected by the crisis will remain low beyond the near term

End of borrowed prosperity

- Consumption supported by accumulating debt
- High growth was borrowed from the future
- Deleveraging means postponing consumption to the future

Failure to move up the value Chain

- High cost societies competing in economic activity where they have lost comparative advantage to EMEs
- Regaining competitiveness would be difficult
  - Restructuring entails economic pain
  - Drop in living standards to match productivity levels
- Watch out for focus on exchange rates as the "great equalizer"

Weak financial systems

- Weak financial systems faced with cost and uncertainty of new regulation – reduce assets growth
- Rehabilitation of financial systems is still unfinished business – esp. in Europe

Outlook: Growth in many advanced economies affected by the crisis will remain low beyond the near term

Time is not on their side

- End of demographic boon and onset of bane
  - As "baby boomers" go into retirement, who will replace them?
- Possible hysteresis effects of high unemployment

Fiscal Crisis

- The road to fiscal sustainability requires fiscal retrenchment
- Higher taxes + lower pensions and health benefits ➔ undermine growth

Limits of Monetary Policy

- Advanced economies' MP is repeating past mistakes
- Cheap liquidity to encourage accumulation of leverage – isn't that one of the reasons they got into this mess in the first place?
- Risks will mount the longer interest rates remain low – Globally

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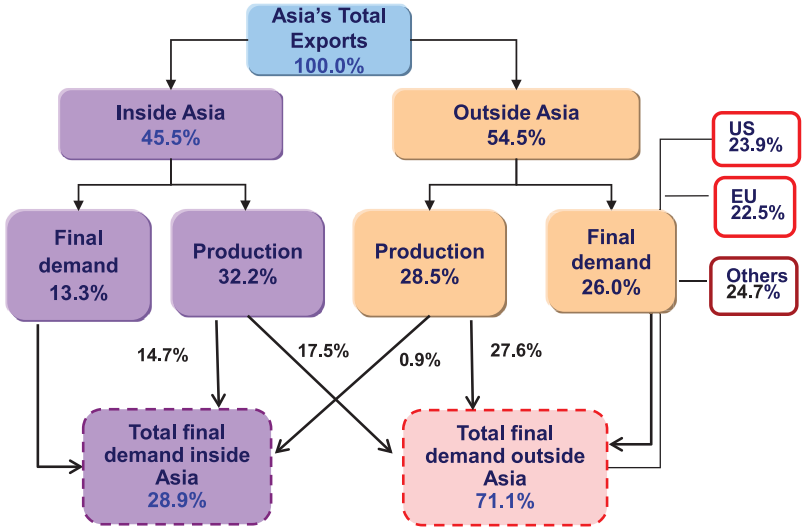
Asia's export dependence on advanced economies

US and euro area account for close to 50% of Asia's final demand

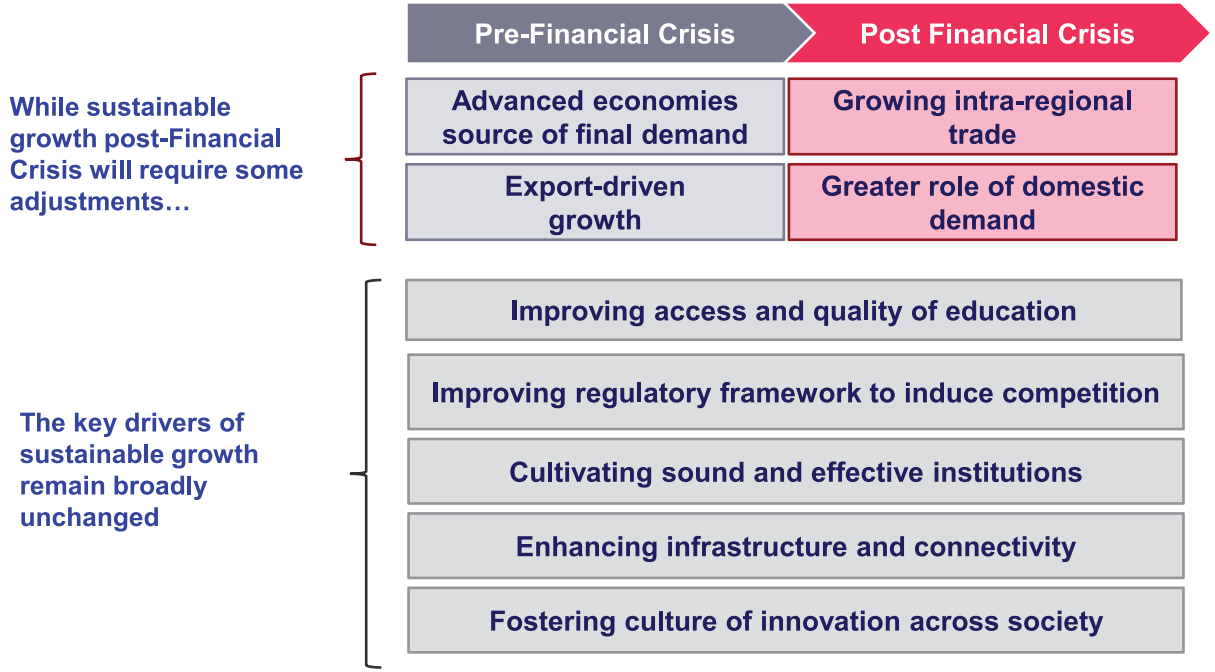


Exports to the advanced economies will remain weak

Weaker growth in Asia

Note: Asia refers to Bangladesh, China, Hong Kong, India, Indonesia, Japan, Republic of Korea, Malaysia, Pakistan, the Philippines, Singapore, Taipei, China, Thailand, and Vietnam
Source: ADB (2010)

Despite the challenging economic landscape, the key drivers of sustainable growth in Asia remain broadly unchanged



Given Asia's diversity in terms of size and development, specific policy priorities will differ between Asian economies

Specific policy priorities will vary based on an economy's stage of economic development

	Factor-Driven Economies	Investment-Driven Economies	Innovation-Driven Economies
General Characteristics	▪ ***Labour-intensive manufacturing*** ▪ ***Agriculture*** ▪ ***Natural resource extraction***	▪ ***Large capital investment*** ▪ ***Mass manufacturing processes*** ▪ ***Assimilate and improve on foreign technology***	▪ ***Knowledge-based value creation*** ▪ ***Produce innovative products*** ▪ ***Close to technology frontier***
Policy Priorities	*1. Provision of education to develop skilled labour* *2. Developing basic infrastructure and investment in capital* *3. Moving up the value chain with less emphasis on cheap labour*	*1. Emphasis on technical education; enhancing knowledge base* *2. Productivity improvements and innovation to move up value chain* *3. Gradual promotion of domestic demand*	*1. Continue knowledge and innovation-driven growth* *2. Further strengthening domestic demand*

Adapted from:

Porter, M (2005), Building the Microeconomic Foundations of Prosperity: Findings from the Business Competitiveness Index, The Global Competitiveness Report, World Economic Forum, Geneva.

Summary: Growth outlook for Asia

Lower growth than in the past	• Low growth in advanced economies • Asia's high dependence on exports to these economies • Intra-regional demand for final goods will grow but it will take time
Does Asia need a new growth model?	• No. Economies will continue to depend on external demand • Developing economies need external demand for accelerated development • But the model needs to be broadened.
A broader model for Asia	• Balance between domestic and external demand • Balance between exports to advanced economies and regional economies • Regional integration with open competitive markets • Improve quality of education, institutions, infrastructure + culture of innovation • Mobilisation of regional savings for regional investment

Outline of Presentation

Does Asia need a new growth model?

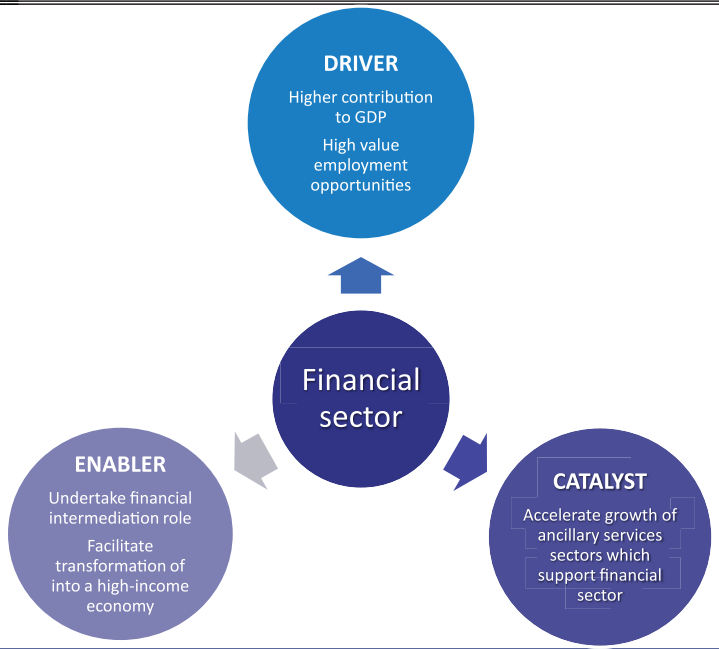
- Post-Crisis Environment facing EMEs in Asia
- Implications for Asian EME Growth and Development Policies

Role of central banks

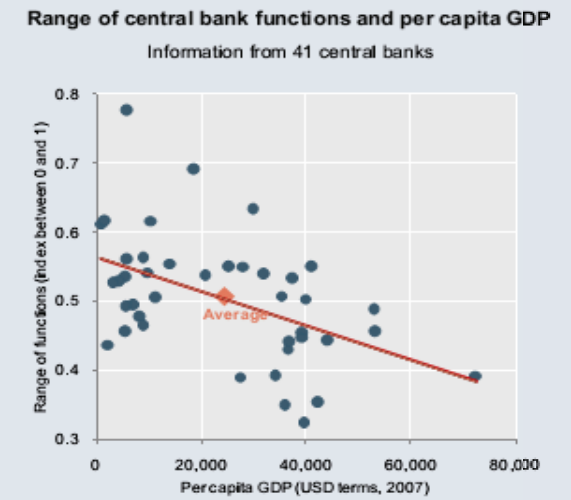
Beyond monetary and financial stability, what more can central banks do to support growth in a low growth environment?

- Monetary & Financial Stability
- Financial Sector Development
- Financial Inclusion (include. SMEs)
- Consumer Protection & Education
- New Growth Areas
- Regional Financial Integration

Financial Sector Development and Sustainable Growth



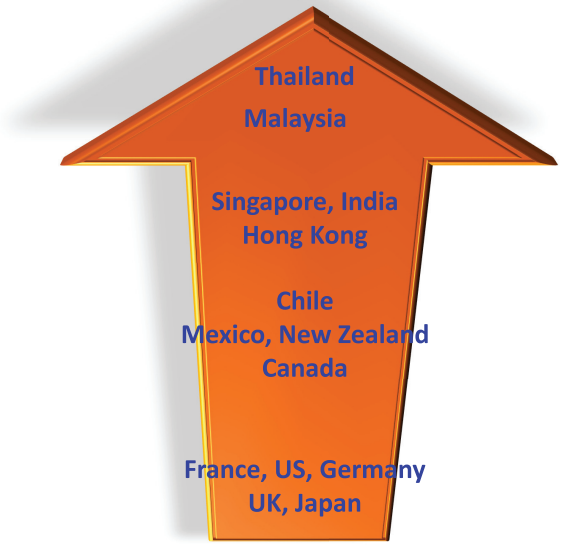
Greater need for central banks in emerging economies to develop financial system



Source: Issues in the Governance of Central Banks, BIS May 2009

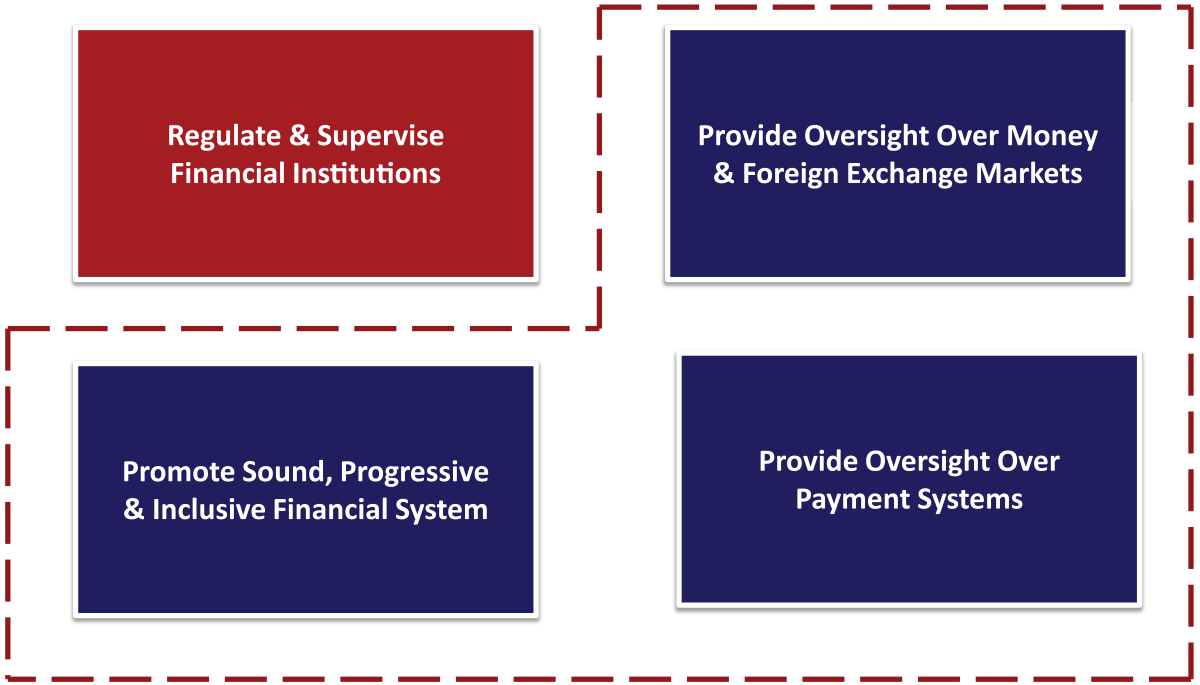
Central banks in emerging market economies have wider functions than those in industrialised economies

Level of central bank involvement in development functions



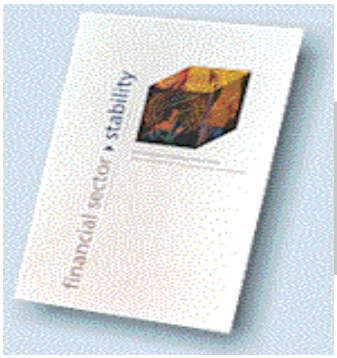
Source: Issues in the Governance of Central Banks, BIS May 2009

Malaysia: Hardcoded developmental functions into Central Bank of Malaysia Act 2009



Malaysia: Comprehensive development plans to provide clarity and 'line of sight' for all stakeholders

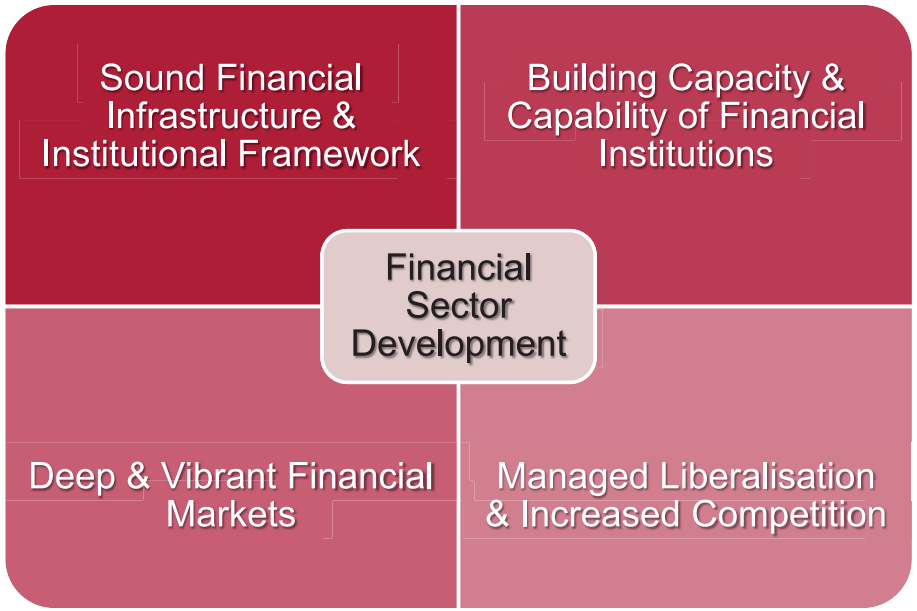
Financial Sector Masterplan 2001-2010



Financial Sector Blueprint 2011-2020

- ✓ Pragmatic implementation process
- ✓ Careful sequencing to maximise benefits while safeguarding financial stability
- ✓ Strong buy-in and support from stakeholders

Key focus areas in financial sector development



Sound financial sector to facilitate effective fund intermediation during normal times and crisis periods

Key Institutions & Infrastructure

- Credit Guarantee Corporation
- Cagamas – securitisation of housing loans
- Danajamin – credit enhancement
- CCRIS credit bureau

Well-functioning infrastructure & institutional framework during periods of stress

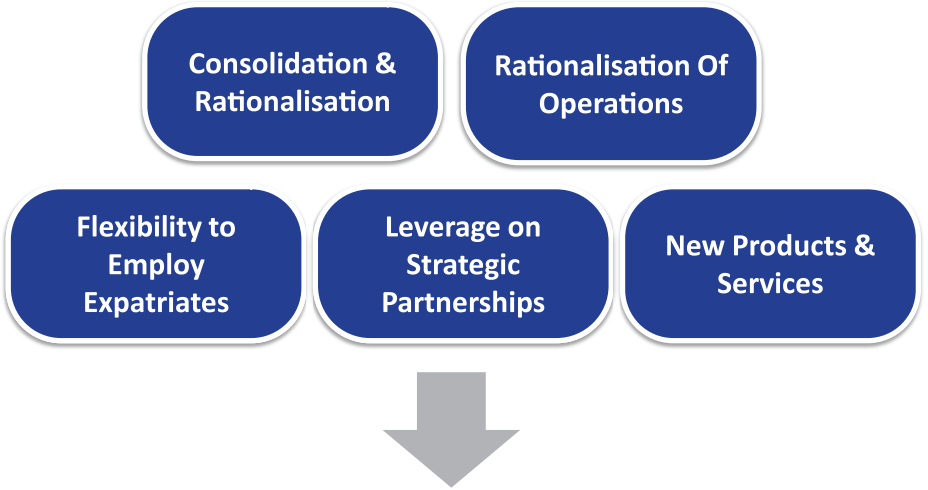
Asian Financial Crisis 1997-1998

- Danaharta
- Danamodal
- Corporate Debt Restructuring Scheme
- Special Funds

Global Financial Crisis 2008-2009

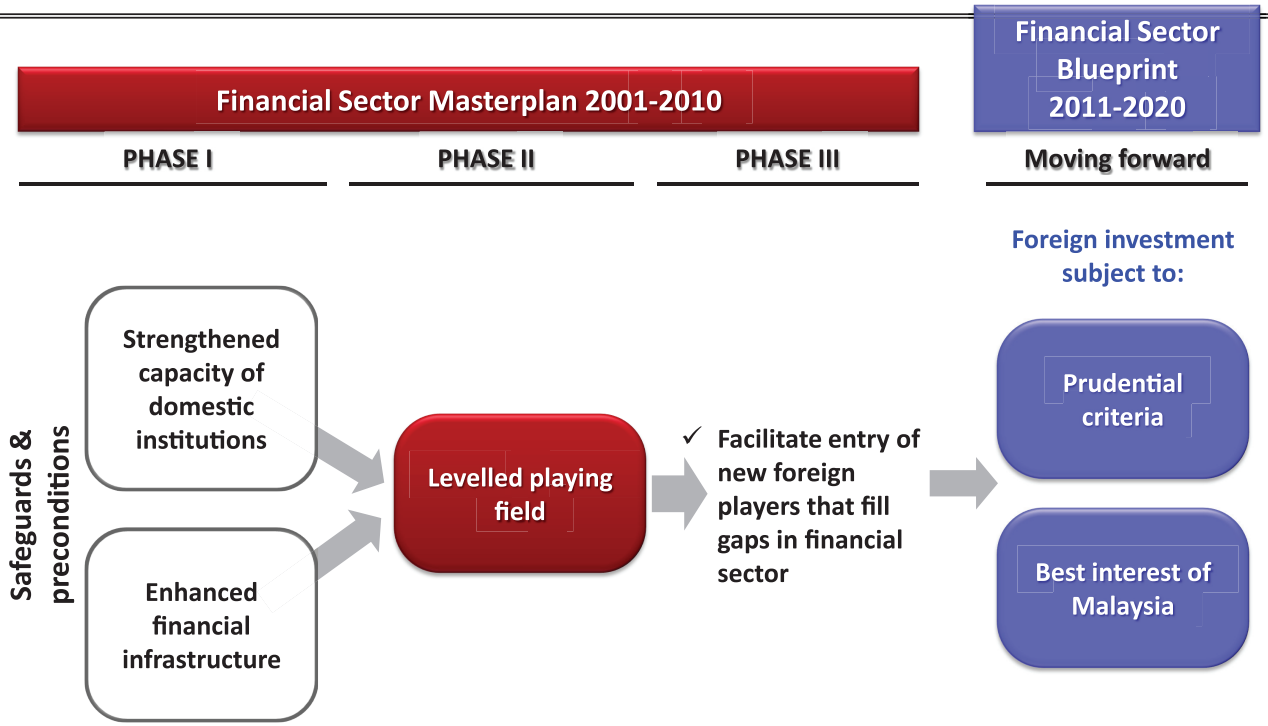
- Lower cost of financing
- Flexibility to restructure & reschedule loans
- Assistance & guarantee schemes

Building capacity and enhancing capabilities of financial institutions



- ✓ From over 77 banking institutions to 8 large core domestic banking groups
- ✓ Higher financial system efficiency

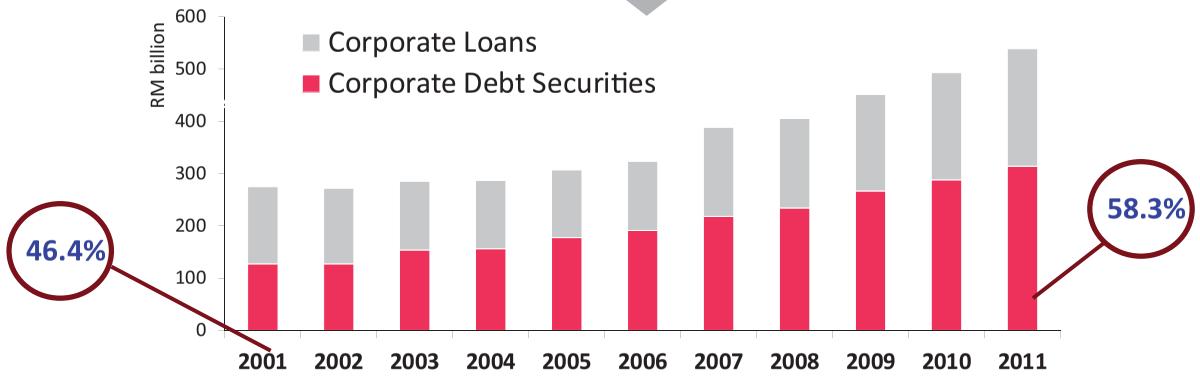
Managed liberalisation maximises benefits



Deep and vibrant financial markets as a key channel of financial intermediation

- Securities Commission as Regulator of Securities Market
- Enhanced Liquidity & Product Diversity
- Broadened the Issuer & Investor Base
- Modern & Efficient Market Infrastructure, Incl. Payment Systems

✓ *Lowered Reliance on Banking Sector Financing*

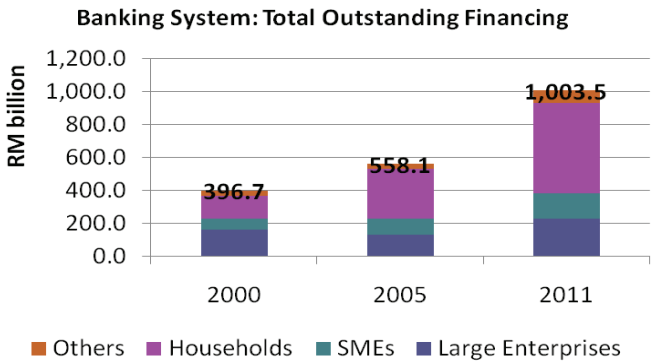


Enhanced role of Malaysian Banking System in Supporting economic growth

The financial sector

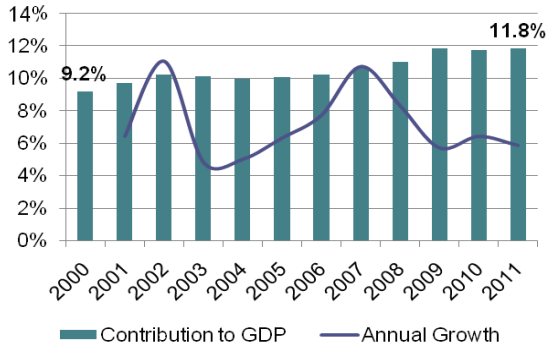
ENABLER

✓ **Continued access to financing by the banking system**



DRIVER

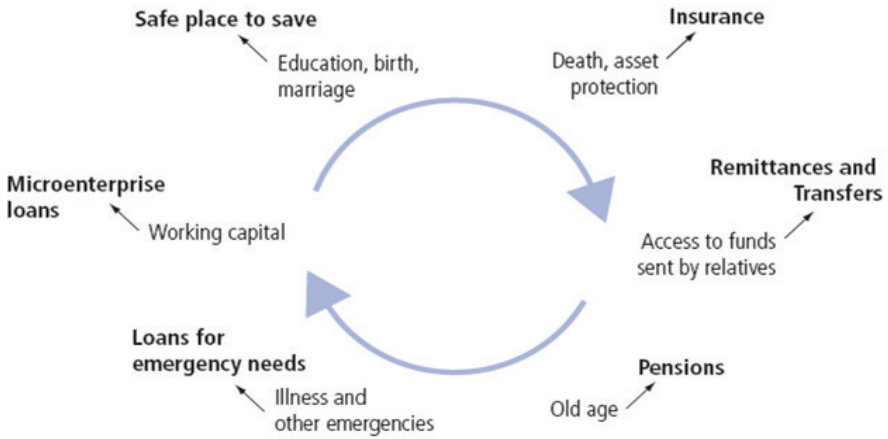
✓ **Higher contribution to GDP**



✓ **Source of high value employment**

Number of employees	2000	2011
Banks	92,490	124,625
Insurance & Takaful	22,958	24,829

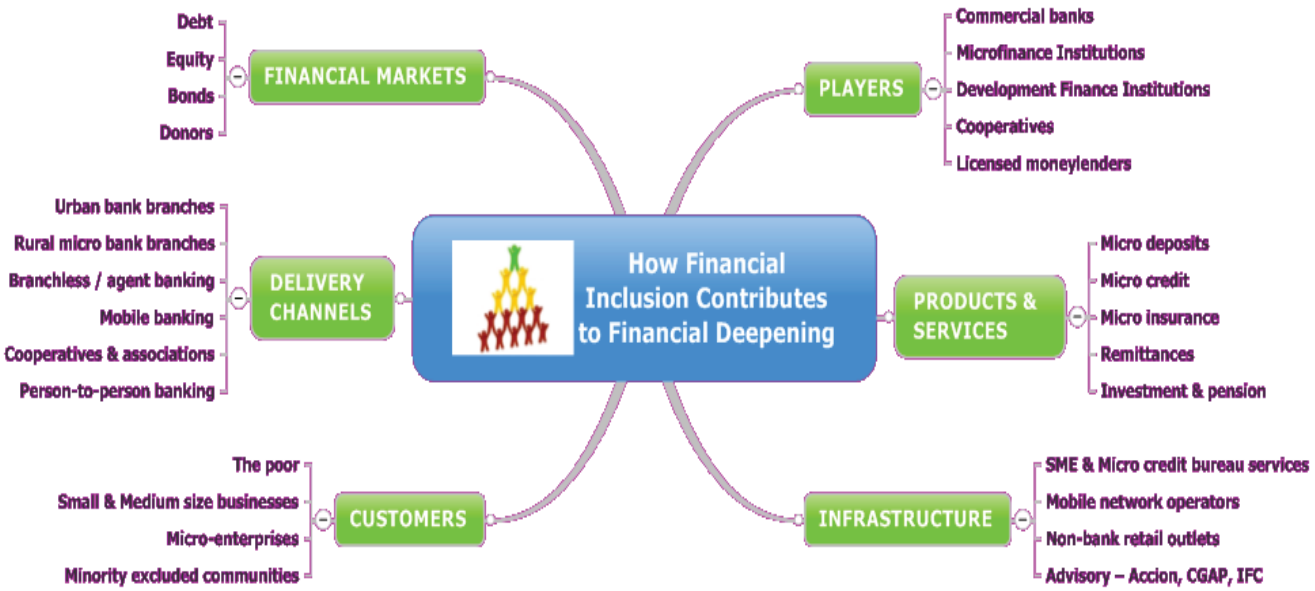
The Poor Need a Variety of Financial Services



Three main categories of events that call for spending:

- **Life cycle events**
- **Emergencies**
- **Opportunities**

Financial Inclusion Extends Financial Deepening by Creating its Own Unique Financial Ecosystem



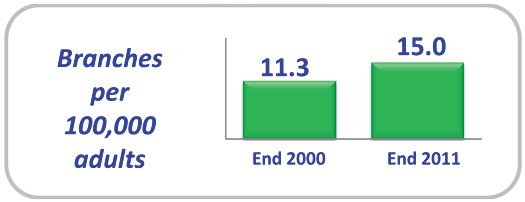
Malaysia: Financial inclusion to ensure sustainable and broad-based economic growth

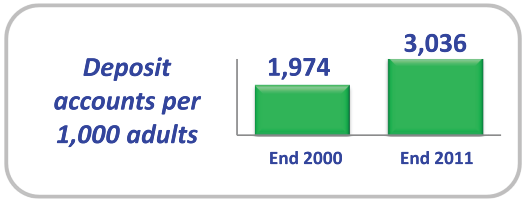
Innovative delivery channels
- Targeted branching
- Agent banking

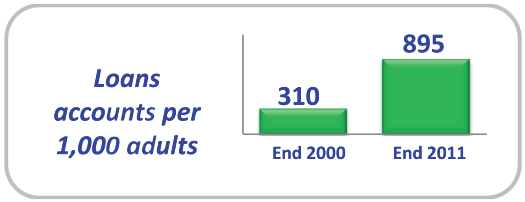
Products and services
- Microfinance
- Basic Banking Services

Institutional arrangements
- Specialised development FIs
- Adequate legislative framework
- Affordable housing schemes

Knowledge and capacity
- Consumer education & protection

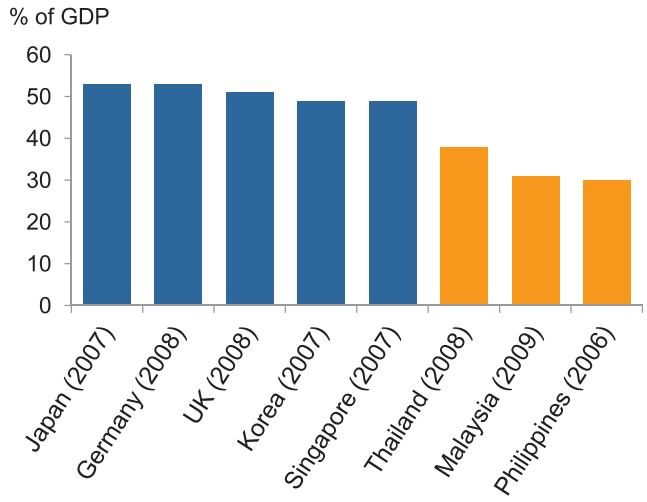






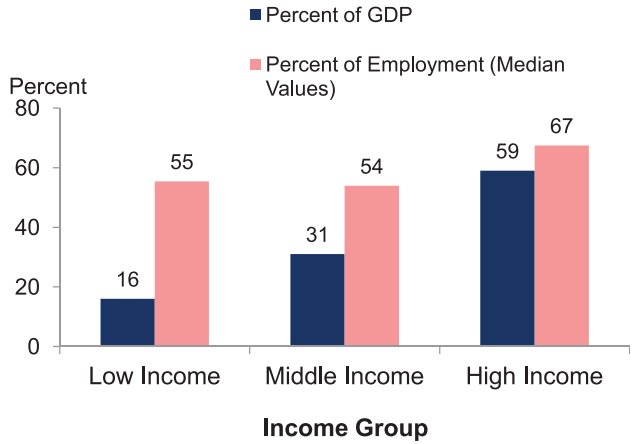
Dynamic, competitive and innovative SMEs are a key component of the sustainable growth model

SME contribution to GDP is typically higher in advanced economies



Source: Malaysia SME Annual Report 2009/10, various sources

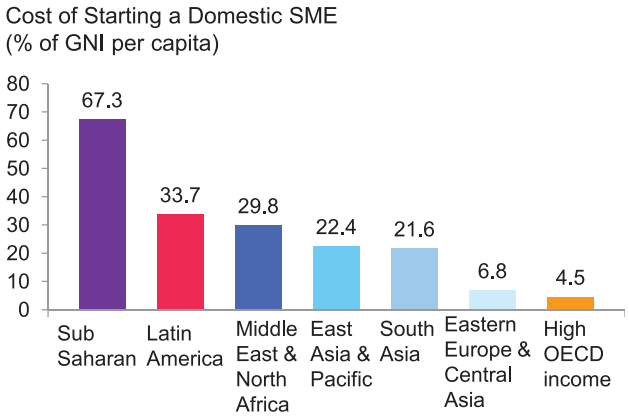
Growing SMEs in low-middle income economies will require higher productivity through innovation



Source: Malaysia SME Corporation from various sources, International Finance Corporation (Micro, Small, and Medium Enterprises: A Collection of Published Data)

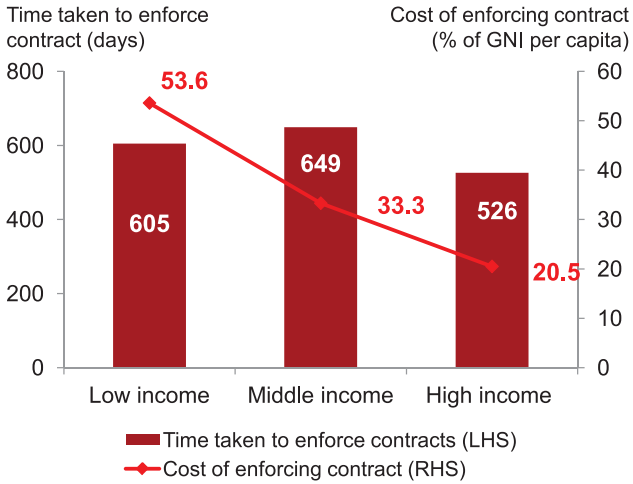
SMEs in emerging economies typically face higher barriers compared to SMEs in advanced economies

High disparity in registration costs in starting a domestic SME



Note: Costs include all official fees, legal and professional fees required by law in setting up a business
Source: World Bank, Doing Business Indicators 2012

Higher cost and time required to enforce contracts in low & middle income economies



Source: World Bank ,Doing Business Indicators 2010

Addressing Key Constraints faced by SMEs: Scope for policymakers in Asia (including central banks)

Top 4 Constraints facing SMEs in Asian Economies

Country	Raw Materials	Marketing	Finance	Energy	Information	Technology & Skill	Market environment	Infra-structure
Cambodia			√	√		√	√	
Indonesia	√	√	√	√				
Malaysia	√		√		√	√		
Philippines		√	√		√	√		
Thailand	√	√	√			√		
Vietnam			√			√	√	√
China		√	√			√		√
India		√	√				√	√

Source: ADB "Enterprises in Asia: Fostering Dynamism in SMEs" (sourced from Tambunan, 2008)

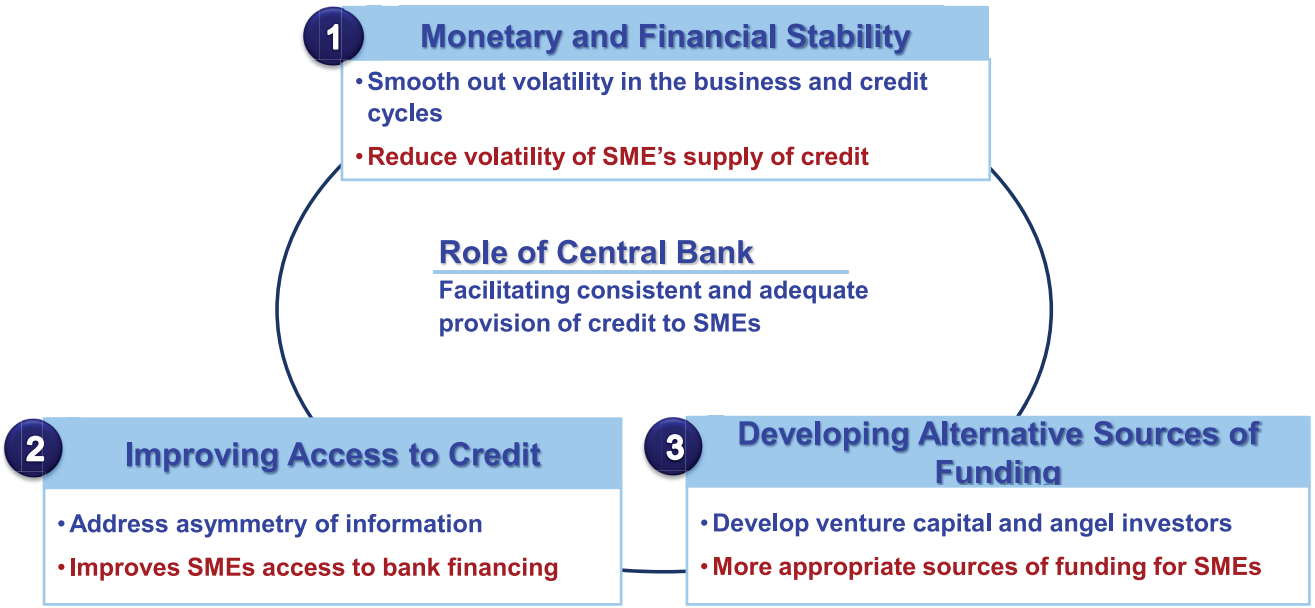
Critical success factors for a vibrant SME sector

Critical success factors based on experience of advanced economies

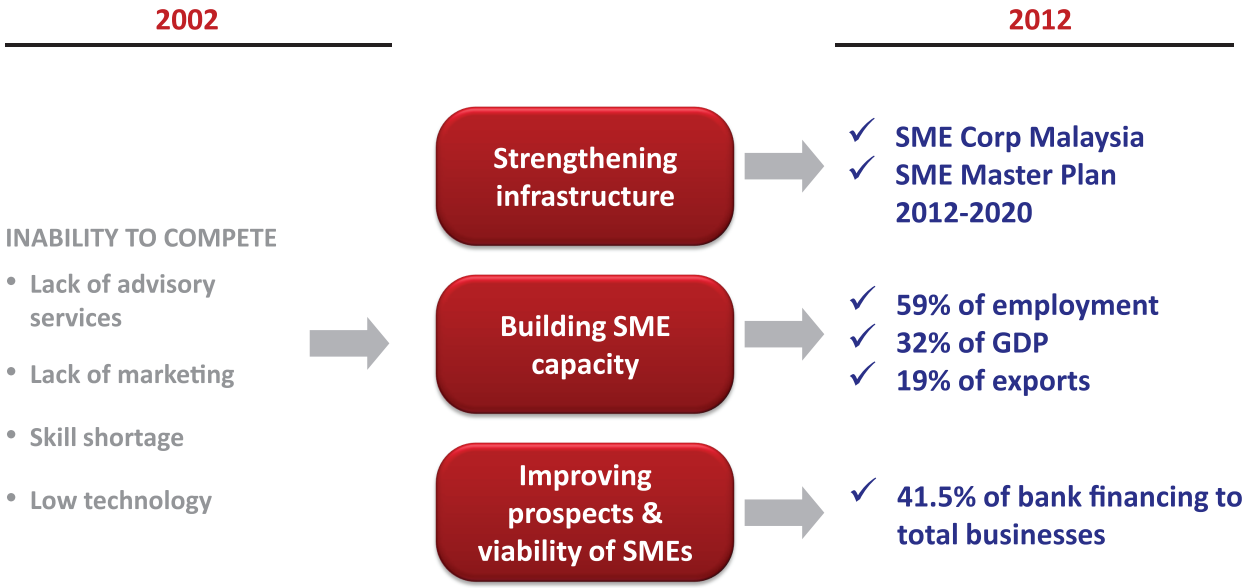
1 Access to financing	2 Innovation and technology adoption	3 Favourable business conditions	4 Market Access
• Functional banking system • Alternative non-bank financing	• Productive human capital • Technology • Business Competencies	• Efficient legal and regulatory framework • Infrastructure • Incentives	• Ease and cost of setting up new business • Competition

Implementation of critical success factors vital to foster SME dynamism

Role of central banks in supporting the SME sector



Holistic and comprehensive SME development to promote endogenous sources of growth



3

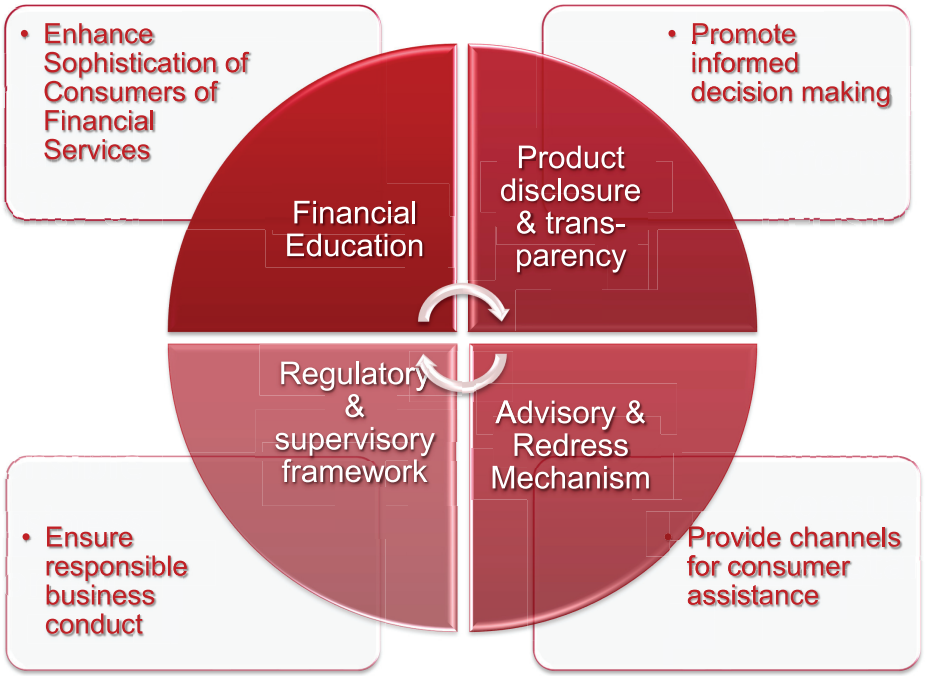
Consumer Education and Protection

Consumer Education & Protection

Particularly important in a low interest rate environment

- Twin risks
  - Search for yield
  - Over-leverage
- Vulnerability to financial scams
- Undermines confidence
- Unwise investment and debt decisions lead to loss of wealth and diminished capacity to consume
- Low interest rate environment requires scaling up of efforts to educate and protect consumers

Consumer Protection & Education: Correcting Information Asymmetries Between Financial Institutions & Consumers



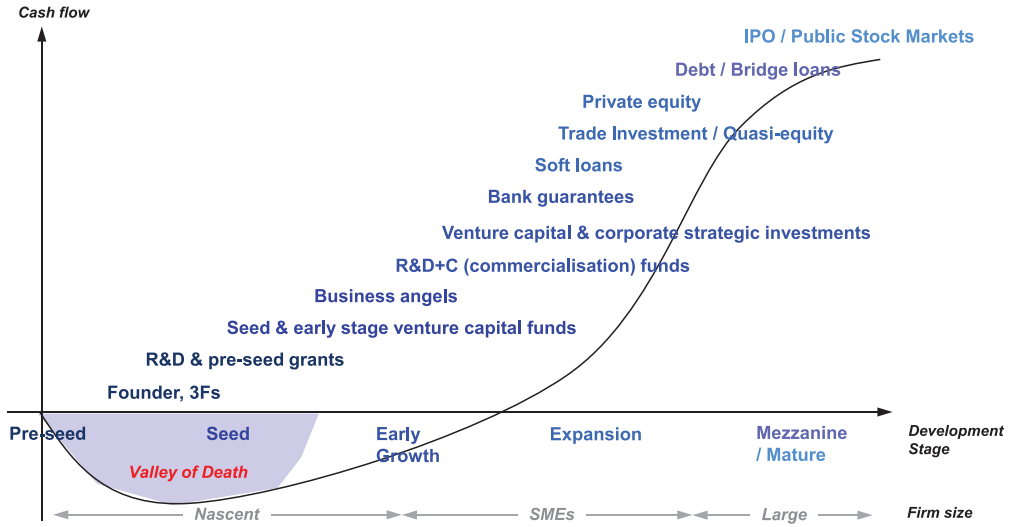
Consumer Education & Protection

It supports sustainable and prudent growth in consumption

- We know now the limits of credit driven consumption – growth borrowed from the future
- How then should Governments push consumption?
  - Growth in incomes & productivity
  - Consumers make wise investment decisions (avoiding loss of savings and being taken in by financial scams)
  - Prudent use of credit
- Consumer education & protection ensures prudent and sustainable growth in consumption

Innovation: Lifecycle funding for an innovative firm

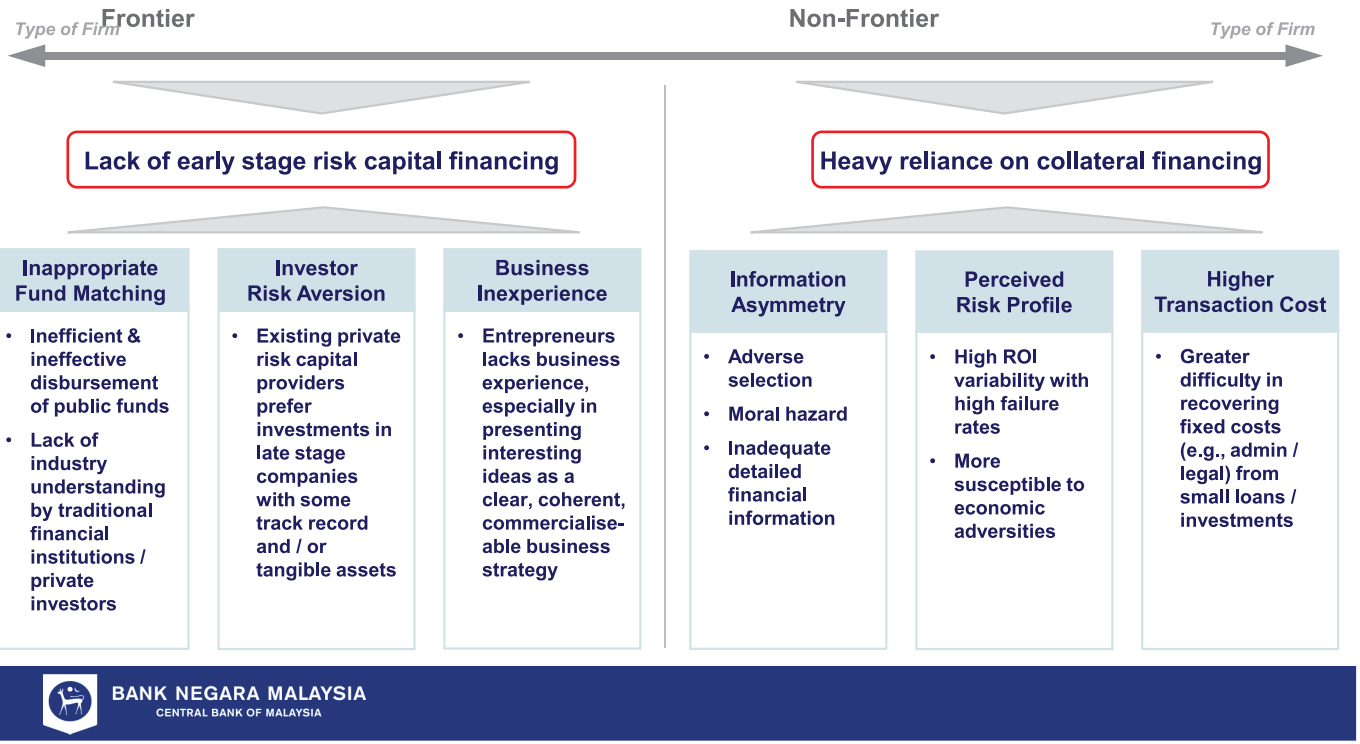
Typical funding eco-system over the lifecycle of an entrepreneurial venture



Source: *Cyclicality of SME Financing*, May 2009, European Commission; *Policy Options and Instruments for Financing Innovation*, 2009, United Nations

Innovation & Entrepreneurship: Key issues facing firms

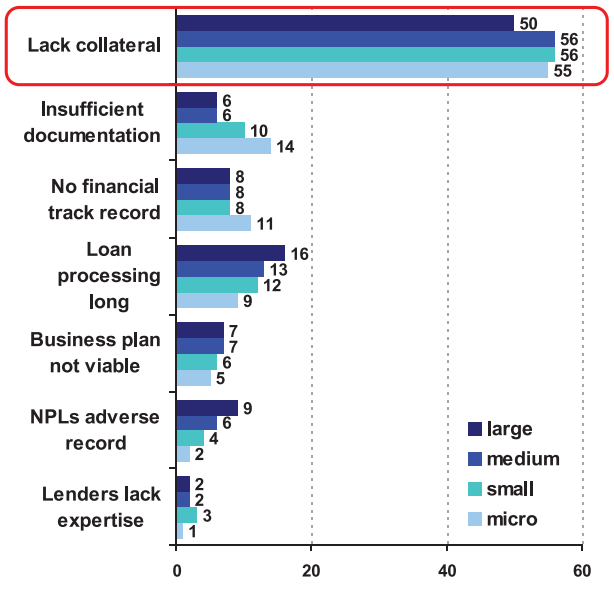
Issues facing the financing of both frontier and non-frontier firms



Entrepreneurship: Issues facing non-frontier firms

Need for collateral underpinned by information asymmetry, perceived risk profile & higher transaction cost

% respondents indicating factor as most significant obstacle



Source: World Bank

Lack of non-collateral financing

Reliance on collateral financing

Information Asymmetry	Perceived Risk Profile	Transaction Cost
• Adverse selection • Moral hazard • Inadequate detailed financial information	• High ROI variability with high failure rates • More susceptible to economic adversities	• Greater difficulty in recovering fixed costs (e.g., admin / legal) from small loans / investments

Role of central bank in supporting new growth areas

Reduce information asymmetry

- Banks lack knowledge of new industries
- Facilitate access to such knowledge (examples):
  - Conference on green technology
  - Sharing of experience by industry leaders in such financing
- Enhance credit information systems

Help develop alternative funding sources

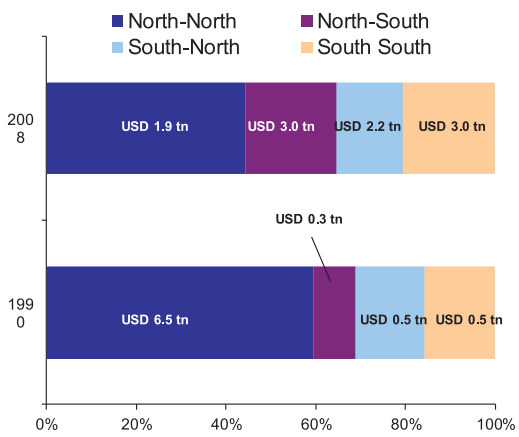
- Private sector driven
- Central bank and Govt have no comparative advantage
- Alternatives to collateral based financing
- Fund of Funds (FoF) to be invested in the venture capital industry
- Limited risk sharing mechanism

Advice Government

- Banks not the best source for such funding
- Need to put in place other critical success factors – legal and regulatory infrastructure, patents and intellectual property rights
- Tax measures to encourage venture capital funds

Greater integration between EMEs

Share of total trade by region



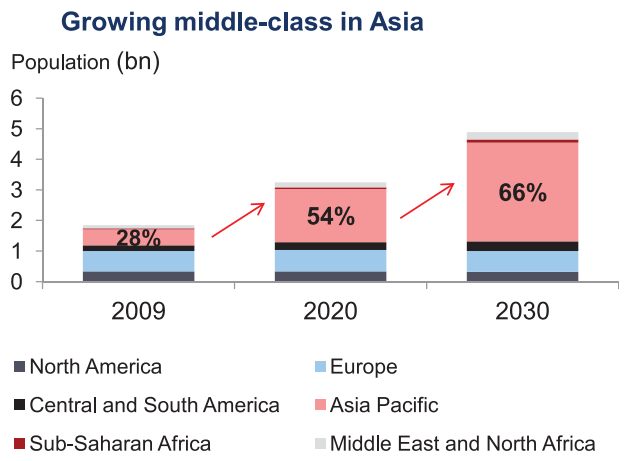
Regional South-South trade flows in 2008, USD billion

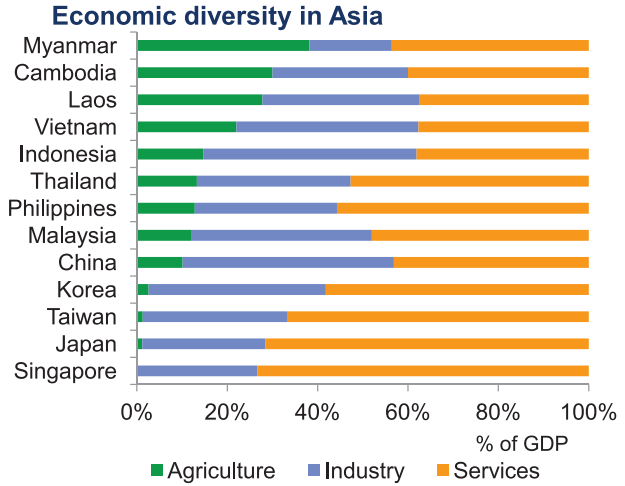
Source: OECD, Shifting Wealth (2010)

Asia's tremendous potential can be realised through greater regional integration

A Asia will be an important source of final demand

B Diversity and comparative advantage enables specialisation and economies of scale

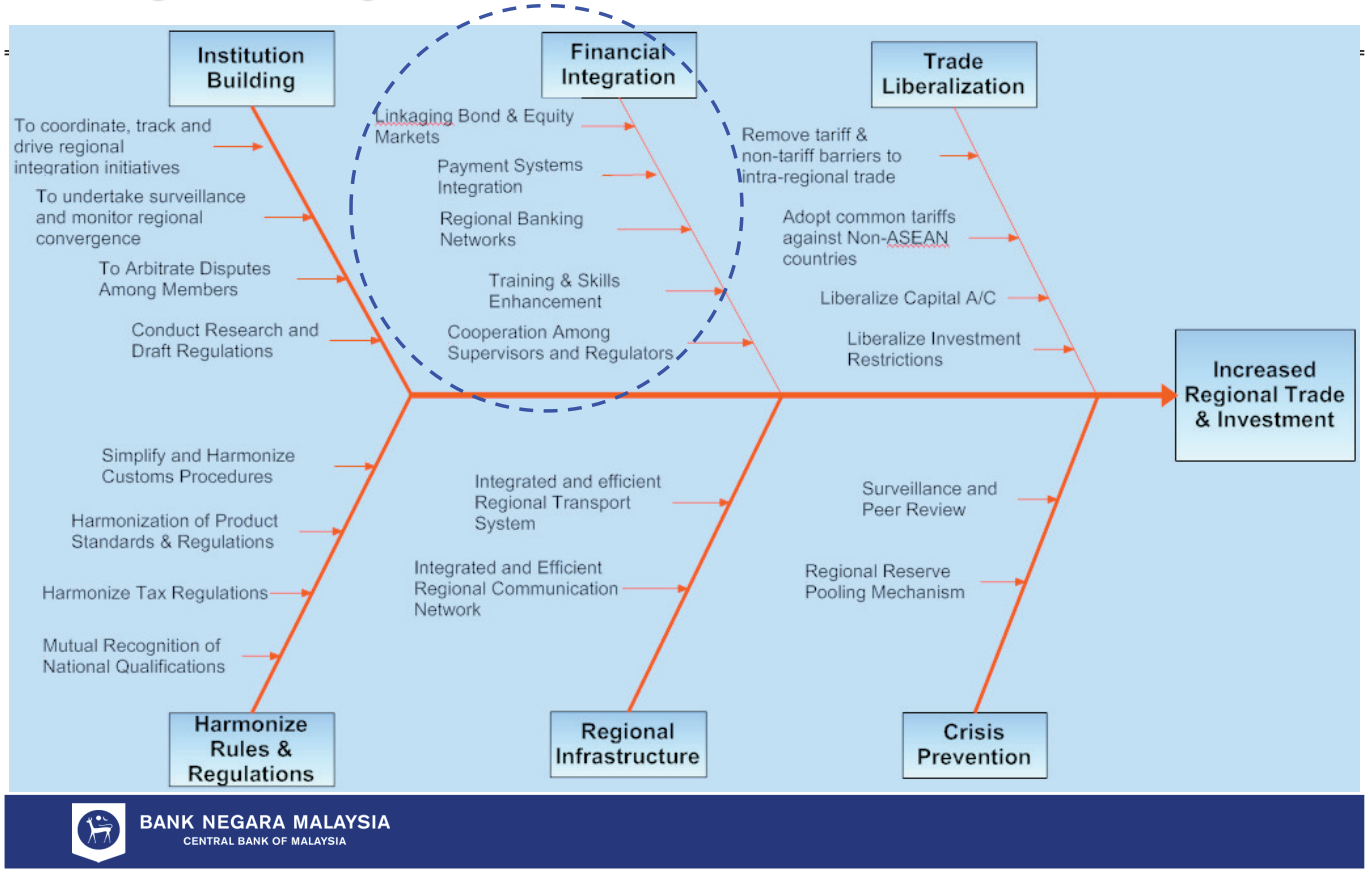




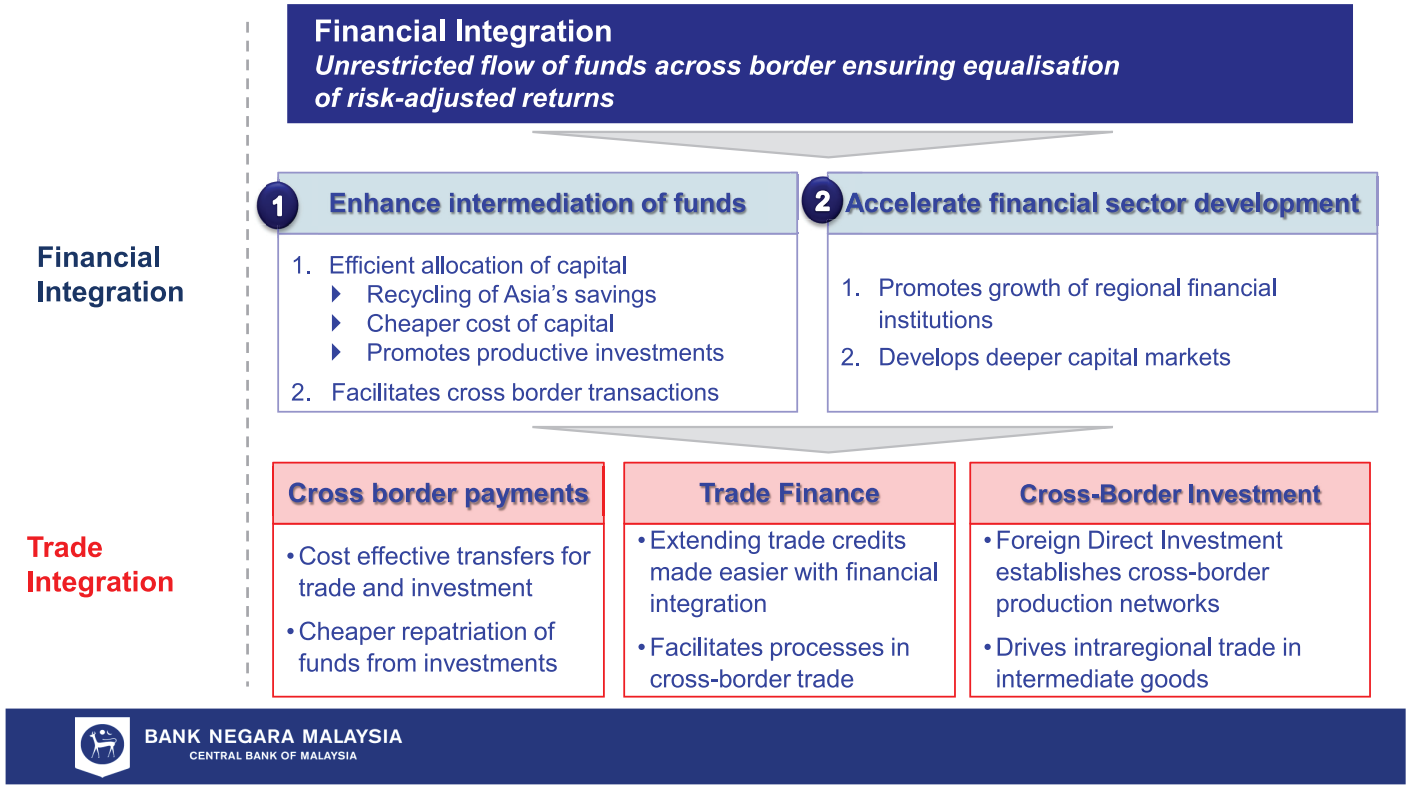
Source: OECD (The Emerging Middle Class in Developing Countries, 2010)

Source: CEIC, various sources

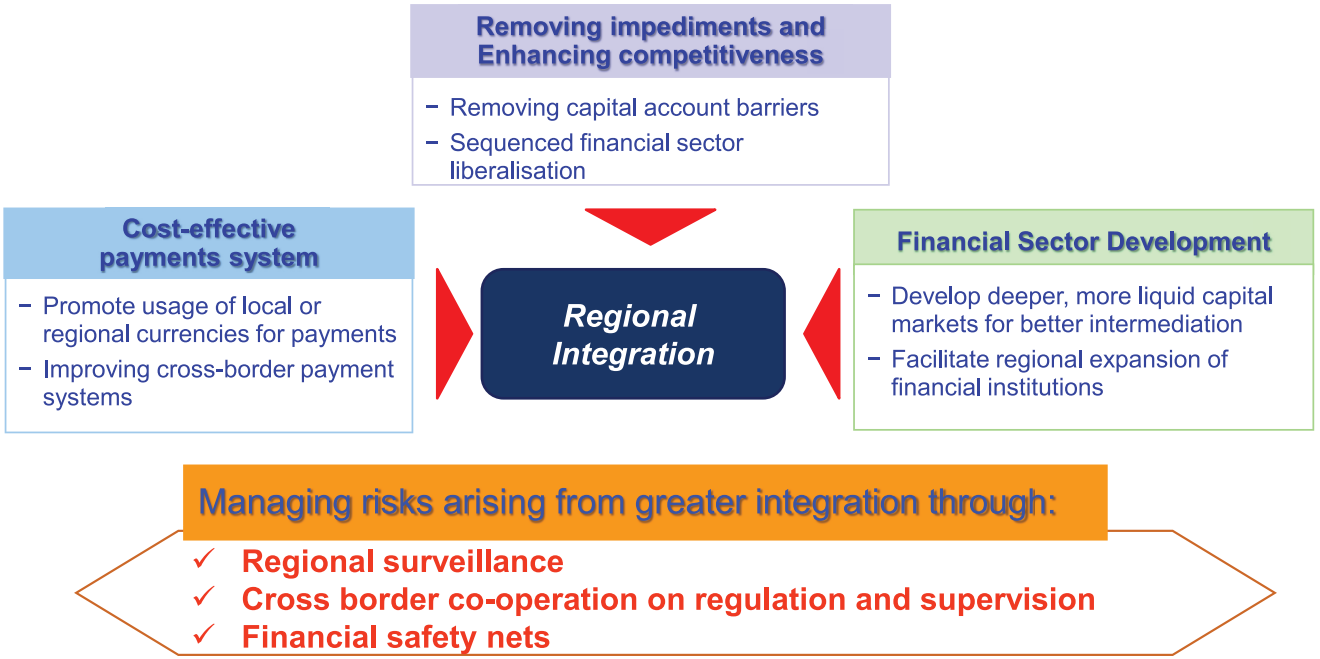
Regional Integration – Role of Central Banks



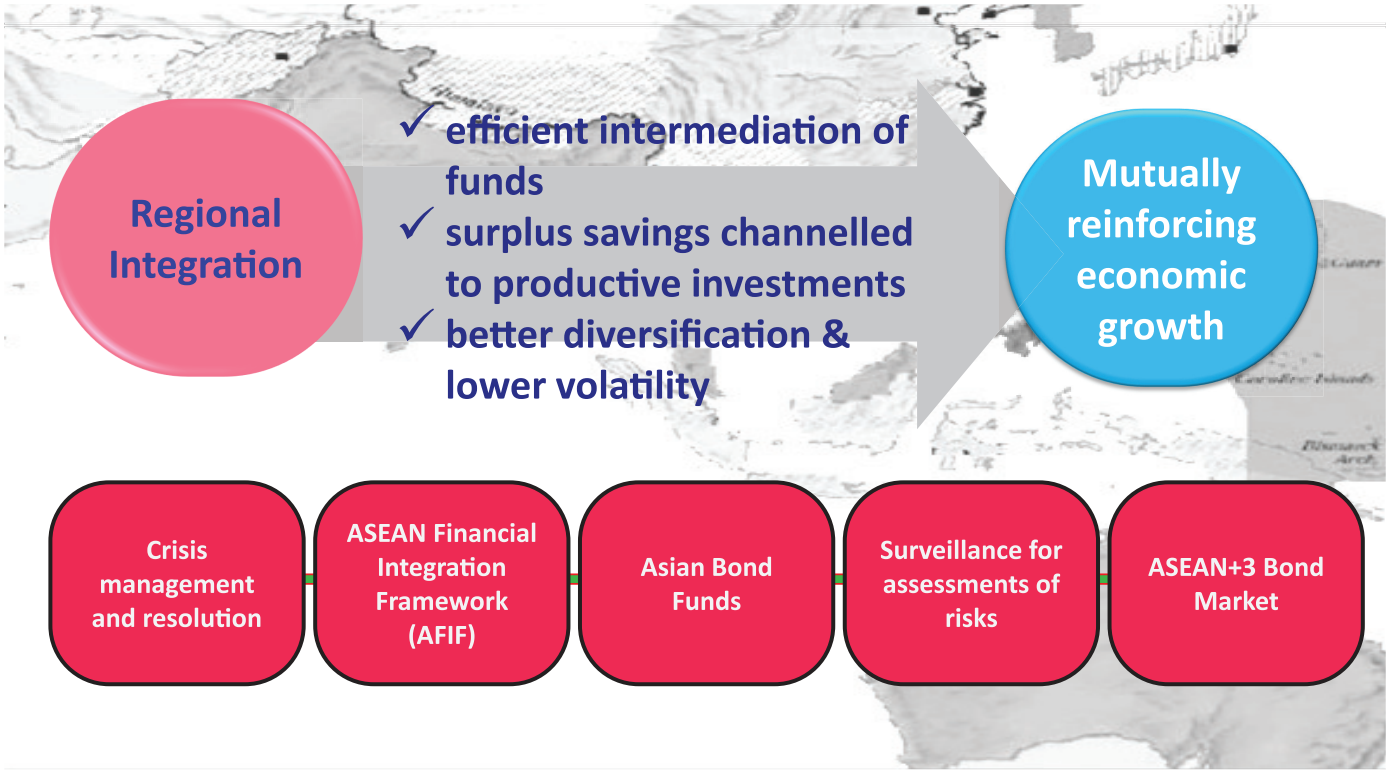
Financial integration supports deepening of intra-regional trade



Central banks play a key role in facilitating regional integration while managing emerging risks



Promoting deeper regional financial integration



TO SUMMARISE…

Role of EME Central Banks in Supporting Growth in the New Global Economy

- The macroeconomic environment has changed – from stability & high growth to instability and low growth – how will central banks support growth?
- Policy spillovers from advanced economies – complicates management of monetary and financial stability for EME central banks (capital flows, ER volatility, excessive asset and commodity prices, etc.)
- EME central banks have to venture beyond the what is considered in the advanced economies as the traditional roles of central banks – necessary to support growth:
  - Financial sector development
  - Financial inclusion
  - Consumer protection and education
  - Regional financial integration and collaboration

SESSION 5

PROSPECTS FOR SOUTHEAST ASIA'SLONG TERM ECONOMIC DEVELOPMENT: WHAT ROLE FOR CENTRAL BANKS?[1]

By
Giovanni Capannelli[2]

and

Kensuke Yanagida[3]

1. Introduction

Since the 1980s, members of the Associations of Southeast Asian Nations (ASEAN) have shown a remarkable trend of economic growth. Although the Asian financial crisis of 1997/98 was a major setback, implying an overall lowering in the speed of economic growth, domestic structural reforms introduced since the late 1990s to address the causes of the crisis helped strengthen ASEAN countries' economic fundamentals and resilience against future shocks. As a matter of fact, when the global economy was hit by the financial crisis in 2008/09, after an initial slowdown due to a knock-on effect, ASEAN countries were able to continue rising, on average, at a sustained pace. Due to this remarkable performance, combined with that of other regional economies such as the Republic of Korea, the People's Republic of China (PRC) and India, Asia as a whole begun to assume the role as an engine of global economic growth.

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1. Background paper prepared for the *"SEACEN-CeMCoA/BOJ High-Level Seminar on Finding Asia's New Sustainable Growth Model Post GFC: The Role of the Central Banks",* The SEACEN Centre, Kuala Lumpur, 6-7 November 2012. The views expressed in this paper are uniquely of the authors and to not represent the official position of the Asian Development Bank (ADB) Institute, the ADB, and its Board of Directors. We are particularly grateful to Vincent Lim Choon Seng (Senior Economist, The SEACEN Centre), Peter Morgan (Senior Consultant for Research, ADBI) and Victor Pontines (Research Fellow, ADBI) for their invaluable comments and suggestions. Any mistake is uniquely the authors' responsibility.
2. Special Adviser to the Dean, Asian Development Bank Institute.
3. Research Associate, Asian Development Bank Institute.

As a matter of fact, between 1990 and 2011 the combined gross domestic product (GDP) of the ten ASEAN economies, plus the PRC and India has grown at a sustained 6.3% every year, almost double the world average of 3.4% (IMF 2012). In the year 2000, more than one fourth of total global GDP was generated in Asia. Projections from various sources converge in suggesting that this share will likely reach 50% or more by the year 2050, if not earlier (Foure, Benassy-Quere and Fontagne, 2010; Jorgenson and Vu, 2011).

The transformation of the Asian economy and its increasing global importance has been recently analysed by the Asian Development Bank (ADB) in a study entitled "Asia 2050: Realizing the Asian Century" (Kohli, Sharma, and Sood (2011)). The study's basic message is that under a positive—Asian century—scenario, by 2050 Asian economies will be home to not only more than half of global output, trade, and investment, but also three billion people who will enjoy the same standards of living Europeans are enjoying today. The study warns, however, that Asia's growth is not preordained: without proper economic policies at national and regional level, several Asian countries may fall into the middle income trap and be unable to reach substantially higher quality of life for a long time.

A more recent study conducted by the ADB Institute (ADBI) entitled "ASEAN 2030: Toward a borderless Economic Community" focused on aspirations and challenges of the ten ASEAN economies as they approach the year 2030 (ADBI, 2013a). This study, in a similar fashion to the Asia 2050 report, concludes that by 2030 Southeast Asian economies can triple their 2010 average per capita income and significantly increase their quality of life to levels similar to those enjoyed, on average, in countries of the Organization of Economic Cooperation and Development (OECD) today. In particular, the study suggests that by 2030 the region can become resilient, inclusive, competitive, and harmonious—a 'RICH' ASEAN. By capitalising on its strengths and opportunities, ASEAN as a group can also significantly contribute to global prosperity. But to achieve a 'RICH' ASEAN by 2030, Southeast Asian economies need to adopt a set of policies aimed at introducing structural domestic reforms and bold initiatives for regional cooperation. This course of action is necessary to avoid the risk of growing at only half their potential, with rising tensions, political conflicts, and by losing the position of centrality in the architecture of Asian regionalism ASEAN has been enjoying for years.

Given the past trend and future prospects for ASEAN countries' growth and development, the aim of this paper is to discuss the role central banks can play to promote long-term economic growth, to assist fulfilling the aspirations of

a 'RICH' ASEAN by 2030, and to contribute to realizing an Asian century by 2050. In particular, the paper analyses how ASEAN countries can benefit from emerging opportunities and address key development challenges by introducing appropriate policies to expand the growth potential of domestic and regional incomes.

The paper is structured as follows. Section 2 reviews the main roles and functions performed by ASEAN central banks. After introducing the Asian century and the 'RICH' ASEAN scenarios, Section 3 offers an analysis of the key macroeconomic trends affecting regional economies, such as a rising middle class, urbanisation perspectives, aging population, energy security and environmental protection. Section 4 reviews the key market integration trends taking place among ASEAN economies in production networks, infrastructure and connectivity, and financial sector development. Section 5 discusses key areas where ASEAN central banks can play a role in supporting long-term economic development. We believe such role mainly relates to ensuring macroeconomic stability, supporting regional infrastructure development, enhancing financial sectors' deepening and widening as well as promoting financial inclusion, facilitating financing of small and medium sized enterprises, and supporting the use of green technologies. And finally, Section Six concludes.

2. Roles And Functions of ASEAN Central Banks

The debate over the role and functions played by central banks in the economy of their countries has greatly intensified in the aftermath of the global economic and financial crisis of 2008/09 and the sovereign debt crisis in the *eurozone*. While opinions on the policies central banks should adopt to enhance resilience and stabilise the economy differ among scholars, usually experts agree on stressing the importance for central banks to enhance macro-prudential surveillance frameworks by strengthening functions and mandates over financial stability through closer economic monitoring and the introduction of financial regulations aiming to mitigate systemic risks that may contribute to the build-up of asset bubbles, eventually leading to financial crises (BIS, 2012; Blinder, 2010; ECB, 2012; Shirakawa, 2010).

Strengthening financial supervision and regulations of domestic markets—a function which in several countries' central bank share with financial supervisory agencies—is indeed one of the basic tasks performed by central banks all over the world together with the formulation of short-term monetary policy aiming at maintaining domestic price stability. Central banks usually contribute to defining the country's exchange rate policy, have mandates to ensure

macroeconomic and financial stability, and organise the domestic payments and settlements system. Besides, central banks may also perform several other functions depending on historical and economic circumstances in their countries, such as supporting small business development or promoting financial inclusion.

In general, the role played by central banks varies according to the country's level of economic development (BIS, 2009). For example, a common mandate of central banks in emerging countries is to promote economic growth and support financial market development through building appropriate institutions and strengthening financial infrastructure (Prasad, 2010). In developing countries, central banks can indeed play an important role as agencies to facilitate long term economic growth and development through the generation of positive spillovers by financing government expenditure, managing exchange rates, and supporting the expansion or restructuring of economic sectors through direct interventions such as credits allocations (Epstein, 2005).

As a matter of fact, all ASEAN central banks are more or less directly supporting long-term economic growth through a variety of policies and measures. In practice their mandates differ quite substantially across countries as responsibilities in exchange rate policy, financial and banking supervision, as well as macroeconomic stability are fulfilled by a range of different agencies (SEACEN, 2013).The main functions performed by central banks of ASEAN countries are summarised in Table 1.

Besides traditional policy formulation to achieve monetary stability, all ASEAN central banks are in charge of supervising and regulating their domestic financial sectors. In a few cases, surveillance is also conducted in coordination with specific institutions such as financial supervisory agencies, securities and exchange commissions, and deposit insurance corporations. Ministries of Finance also often intervene, directly or indirectly, in performing this monitoring function. ASEAN central banks are also mandated to ensure financial stability. This function has actually been strengthened after the global economic and financial crisis of 2008/09 mainly by introducing a new set of macro-prudential policy frameworks aimed at improving risk assessment, mitigating systemic risks, and introducing more stringent capital adequacy ratios and liquidity regulations following the Basel Accord, which is being implemented at different levels across countries (Nier et al., 2011; Kawai, Mayes and Morgan, 2012).[4]

4. While the Bank of Thailand was one of the few ASEAN central banks with a mandate as macro-prudential regulator prior to the crisis, other central banks assumed this function after the crisis broke out. Bank Negara Malaysia, for example, received such a mandate in 2009, following the enactment of the Central Bank Act of Malaysia.

Table 1 - Main Functions Performed by ASEAN Central Banks

	BRU	CAM	INO	LAO	MAL	MYA	PHI	SIN	THA	VIE
1. Achieving monetary stability (i)	▫	▫	▫	▫	▫	▫	▫	▫	▫	▫
2. Conducting financial sector supervision and regulation (ii)	▫	▫ Ministry of Economy and Finance (insurance and securities markets)	▫ Ministry of Finance through BAPEPAM (Capital Market and Financial Institutions Supervisory Agency); Deposit Insurance Corporation	▫	▫ Labuan Financial Services Authority; Malaysia Deposit Insurance Corporation; Securities Commission of Malaysia	▫ Ministry of Finance and Revenue	▫ Securities and Exchange Commission; Insurance Commission; Philippine Deposit Insurance Corporation	▫	▫ Ministry of Finance; Securities and Exchange Commission; Office of Insurance Commission; Financial Institutions Policy Committee	▫ Ministry of Finance (insurance and securities markets)
3. Ensuring financial stability (iii)	▫ Basel I, II, III (partial).	▫ Basel I (partial).	▫ Basel II (customized format), Basel III (initial)	▫ Financial supervision, prudential policy, guarantee for foreign loans	▫ Basel III (capital and liquidity standard)	▫ Basel I (Partial)	▫ Basel II, I, III (initial)	▫ Basel II	▫ Basel II, III (initial)	▫ Basel I, Financial supervision
4. Establishing a well-functioning payment and settlement system	▫	▫	▫	▫	▫	▫	▫	▫	▫	▫
5. Promoting financial market development (iv)	▫ Develop Islamic financial center	▫	▫ Rural and Islamic banking development	▫	▫ Islamic banking and Islamic financial center development	▫	▫	▫	▫ Develop secondary fixed income market and domestic bond market	▫
6. Supporting long-term economic growth	Indirect	▫	Indirect	▫	Indirect	▫	Indirect	▫	▫	▫
7. Other functions		External debt and claims management	SMEs development	Macro-financial management	Financial inclusiveness; SMEs development; Government financial adviser	Government financial adviser (*evolving function due to ongoing structural reforms*)	Financial inclusiveness; Government financial adviser	Strengthen Singapore as a leading global financial centre		Financial development planning

ASEAN=Association of Southeast Asian Nations; BRU=Brunei Darussalam; CAM=Cambodia; EWS=Early Warning System; INO=Indonesia; LAO=Lao People's Democratic Republic; MAL=Malaysia; MYA=Myanmar; PHI=Philippines; SIN=Singapore; SMEs=small and medium enterprises; THA=Thailand; VIE=Viet Nam.

The symbol " ▫ " indicates central banks are mandated to perform the related function.

Notes: (i) Monetary stability refers to interest rates, exchange rates, and other monetary variables; (ii) Conducting banking and financial sector supervision and regulation often involves division of labor with other national agencies, as indicated in the lower section; (iii) Ensuring financial stability refers to the application of macro-prudential frameworks and the introduction of liquidity regulations and capital adequacy ratios (the lower section describes key areas of Basel Accord implementation in ASEAN countries); (iv) the lower section indicates specific functions mandated to central banks.

Source: Authors' compilation based on: SEACEN (2013), Guide to SEACEN Bank Watch 2013; and websites of individual ASEAN central banks.

All ASEAN central banks are also in charge of establishing a well-functioning payment and settlement system domestically, and they are engaged with the promotion and development of their financial markets. Some countries are pursuing a range of additional objectives as well. For example, Brunei Darussalam, Indonesia, and Malaysia are targeting the development of Islamic finance, while Thailand is focused on developing a secondary fixed income market and domestic bond markets. The Monetary Authority of Singapore has the clear objective to strengthen its status as a leading global financial center, while central banks of countries such as the Philippines and Malaysia also promote financial inclusiveness by reinforcing institutions involved with microfinance and the credit allocation for small and medium enterprises (SMEs). Finally, the mandate allocated to central banks such as the State Bank of Vietnam and the Central Bank of Myanmar includes performing an active role in the formulation and implementation of the government's economic policy and planning, with a focus on issues related to financial development.

Among ASEAN central banks, those from Cambodia, the Lao People's Democratic Republic (PDR), Myanmar, Singapore, Thailand and Viet Nam have a direct mandate from the government to formulate policies in support of long-term economic growth. Although the other four ASEAN central banks (Brunei Darussalam, Indonesia, Malaysia, and the Philippines) do not have such an explicit mandate, in practice their policies usually support the objective of sustaining economic development.

Indeed, for ASEAN countries the issue is not whether supporting growth is part of the objective function of central banks. Rather, given national and regional institutional settings, the key factor for decision-making in ASEAN central banks is to identify an appropriate policy mix to ensure macroeconomic stability, support the development of local financial markets, facilitate start-ups and SMEs development, and ensure financial inclusion. The aim of this paper is to identify a concrete role that central banks can play in ASEAN countries to support long-term economic growth and development.

3. Key Macroeconomic Trends

Over the last few decades, Asia's importance in the global economy has increased steadily due to a successful process of economic development that started with Japan after the second world war period and later embraced by an increasing number of East Asian economies, from the Asian newly industrialising economies (Republic of Korea, Chinese Taipei, China, Singapore and Hong Kong, China), to the ASEAN4 countries (Indonesia, Malaysia, the Philippines and

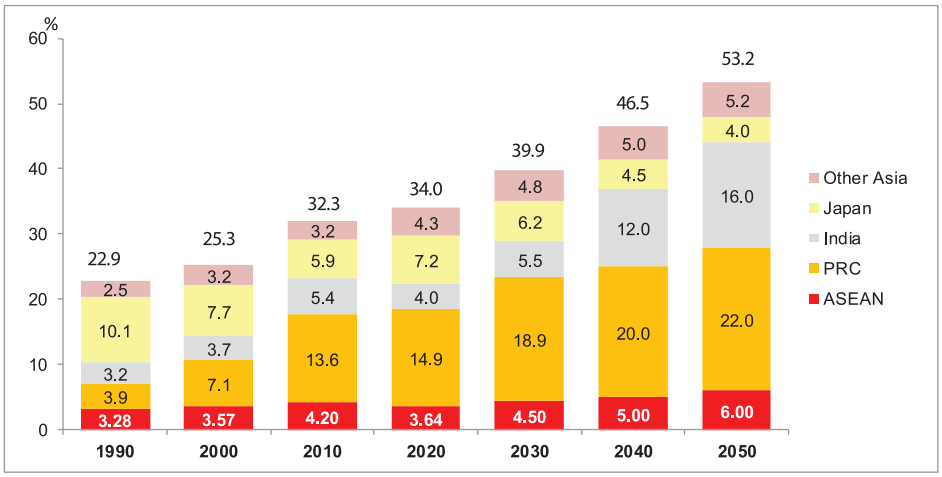
Thailand), the PRC, India, and other ASEAN economies as well. More recently South and Central Asian economies have also been growing at a very sustained pace, mimicking in a way East Asia's performance.

3.1 An Asian Century by 2050?

While the Asian financial crisis of 1997/98 was a major setback for many countries in the region, the recovery from economic recession was relatively fast and by the year 2000, Asian countries were able to collectively produce more than one fourth (25.3%) of the global share of GDP calculated at 2005 prices' purchasing power parity (PPP), against a 22.3% share in the year 1990. As Figure 1 shows, this share reached 32.3% in 2010. ADB's Asia 2050 study—assuming Asian countries take appropriate economic policies and avoid falling into the middle income trap—projects Asia's importance in the world economy to steadily increase to reach more than half the global GDP (53.2%) by the year 2050. In particular between 2010 and 2050, the study projects an average 5.3% yearly increase in Asian countries' GDP, against a world average growth of 4%, and Asia's average per capita income is to reach around USD 40,000 by the year 2050, a value similar to current European levels. Such growth is expected to be led by the PRC and India and other Asian emerging economies particularly from the ASEAN region[5] (Kohli, Sharma and Sood, 2011).

5. In parallel with the Asia 2050 study, Jorgenson and Vu (2011) estimated that between 2010 and 2030 the GDP growth of the PRC and India will be 7.5% and 6.5% respectively. They also expect Cambodia, Lao PRD, Myanmar and Viet Nam to grow at more than 7% per year during the same period.

Figure 1 - Estimated Share of World's GDP 1990-2050 based on purchasing-power-parity



ASEAN=Association of Southeast Asian Nations; GDP=Gross domestic product; PRC = People's Republic of China.
Note: Other Asia includes Afghanistan, Armenia, Azerbaijan, Bangladesh, Kazakhstan, Kyrgyz Republic, Nepal, Pakistan, Sri Lanka, Taijikistan, Turkmenistan, and Uzbekistan.
Source: Actual data for the period 1990-2010 are from: International Monetary Fund (IMF). World Economic Outlook Database, October 2012. Projections for the period 2020-2050 are from ADB's Asia 2050 study (Kohli, Sharma, and Sood, 2011).

While the emergence of an Asian century is a plausible scenario, its realisation is not going to happen by default. Without proper policies and structural reforms, many Asian economies may fall into the middle income trap, a situation where developing countries fail to realise their potential and once they reach a middle-income status, their economies eventually stagnates. Several Asian developing countries enjoy global comparative advantages in industries where they can use their relatively cheap labour and abundance of natural resources. However, as domestic wages and other costs rise, emerging market economies may be unable to maintain their international competitiveness, also as a consequence of inadequate policies to support human capital development and to promote technological progress. Shifting from an input-driven growth to a new normal based on higher productivity and innovation is a strategic decision for developing economies which requires introducing a proper set of policies and institutions aimed at building an environment conducive to technological innovation and entrepreneurship, and promoting high-quality education. It is when countries do not succeed in achieving such structural change that they may fall into the middle income trap.

Succeeding in considerably expanding the middle class as a major source to consume high-value-added goods and services is another key to avoid falling in the middle-income trap. In terms of approach to economic growth and development, this translates in promoting an inclusive strategy, both within and across countries, to avoid further widening of inequalities that limit growth in domestic demand.

3.2 A "RICH" ASEAN by 2030?

Realising the Asian century requires individual countries to introduce a set of policies aimed at fostering economic growth and prosperity in the long run. As an intermediate step, ASEAN economies could start by targeting the year 2030 and monitor progress to make sure they are following the right path. Recent ADB estimates suggest that in the two decades to 2030 ASEAN economies are expected to perform an average GDP growth of 5.4% annually. Given current IMF projections on population growth over the same period, such trend will correspond to a 2.5 times increase in the 2010 average per-capita GDP of ASEAN citizens. Within ASEAN, Cambodia, Lao PDR, Myanmar, and Viet Nam (CLMV countries) are expected to grow at a much faster speed than the remaining ASEAN6 countries (i.e. Brunei Darussalam, Indonesia. Malaysia, Philippines, Singapore, and Thailand)—contributing to narrowing the development gaps existing across the region.

ADBI's "ASEAN 2030" study pushes the agenda further by providing policy options that would allow realizing individual countries' aspirations for even faster growth than the one projected through macroeconomic modeling. In particular, the study concludes that, with a proper set of structural reforms and initiatives for regional cooperation, by 2030 ASEAN economies could triple their 2010 per-capita GDP, translating into an average annual GDP growth of 6.4% over the next two decades (Table 2).

Table 1 - Main Functions Performed by ASEAN Central Banks

	BRU	CAM	INO	LAO	MAL	MYA	PHI	SIN	THA	VIE
1. Achieving monetary stability (i)	▫	▫	▫	▫	▫	▫	▫	▫	▫	▫
2. Conducting financial sector supervision and regulation (ii)	▫	▫ Ministry of Economy and Finance (insurance and securities markets)	▫ Ministry of Finance through BAPEPAM (Capital Market and Financial Institutions Supervisory Agency); Deposit Insurance Corporation	▫	▫ Labuan Financial Services Authority; Malaysia Deposit Insurance Corporation; Securities Commission of Malaysia	▫ Ministry of Finance and Revenue	▫ Securities and Exchange Commission; Insurance Commission; Philippine Deposit Insurance Corporation	▫	▫ Ministry of Finance; Securities and Exchange Commission; Office of Insurance Commission; Financial Institutions Policy Committee	▫ Ministry of Finance (insurance and securities markets)
3. Ensuring financial stability (iii)	▫ Basel I, II, III (partial),	▫ Basel I (partial),	▫ Basel II (customized format), Basel III (initial)	▫ Financial supervision, prudential policy, guarantee for foreign loans	▫ Basel III (capital and liquidity standard)	▫ Basel I (Partial)	▫ Basel I, II, III (initial)	▫ Basel II	▫ Basel II, III (initial)	▫ Basel I, Financial supervision
4. Establishing a well-functioning payment and settlement system	▫	▫	▫	▫	▫	▫	▫	▫	▫	▫
5. Promoting financial market development (iv)	▫ Develop Islamic financial center	▫	▫ Rural and Islamic banking development	▫	▫ Islamic banking and Islamic financial center development	▫	▫	▫	▫ Develop secondary fixed income market and domestic bond market	▫
6. Supporting long-term economic growth	Indirect	▫	Indirect	▫	Indirect	▫	Indirect	▫	▫	▫
7. Other functions		External debt and claims management	SMEs development	Macro-financial management	Financial inclusiveness; SMEs development; Government financial adviser	Government financial adviser (*evolving function due to ongoing structural reforms*)	Financial inclusiveness; Government financial adviser	Strengthen Singapore as a leading global financial centre		Financial development planning

ASEAN=Association of Southeast Asian Nations; BRU=Brunei Darussalam; CAM=Cambodia; EWS=Early Warning System; INO=Indonesia; LAO=Lao People's Democratic Republic; MAL=Malaysia; MYA=Myanmar; PHI=Philippines; SIN=Singapore; SMEs=small and medium enterprises; THA=Thailand; VIE=Viet Nam.

The symbol " ▫ " indicates central banks are mandated to perform the related function.

Notes: (i) Monetary stability refers to interest rates, exchange rates, and other monetary variables; (ii) Conducting banking and financial sector supervision and regulation often involves division of labor with other national agencies, as indicated in the lower section; (iii) Ensuring financial stability refers to the application of macro-prudential frameworks and the introduction of liquidity regulations and capital adequacy ratios (the lower section describes key areas of Basel Accord implementation in ASEAN countries); (iv) the lower section indicates specific functions mandated to central banks.

Source: Authors' compilation based on: SEACEN (2013), Guide to SEACEN Bank Watch 2013; and websites of individual ASEAN central banks.

Using a bottom-up approach based on individual ASEAN countries' consultations and background papers, the study finds that ASEAN as a region aspires to become resilient, inclusive, competitive, and harmonious—'RICH'—by 2030. Resilience is associated with the ability for handling economic and financial volatility and shocks, requiring an efficient civil service capable to implement sound macroeconomic policies domestically and to coordinate regionally through a proper institutional framework. Inclusiveness relates to poverty reduction and narrowing income gaps within and across countries by means of policies that expand development opportunities to all segments of the population, ensuring equity and improving the quality of life. Competitiveness is a key factor to face the increasing interdependence of ASEAN economies with the PRC and India, aiming to enhance productivity, market efficiency, and local innovation capabilities by promoting entrepreneurship and investment in research and development. Finally, harmony is a basic concept for sustainable development, where the imperatives for economic growth are formulated in respect of the environment and natural resources, considering the interplay of social and political variables as well (ADBI, 2013a).

Can ASEAN economies become 'RICH' by 2030? During the two decades from 1990 to 2010, ASEAN economies rose, on average, by 5.8% annually. Given the uncertain conditions affecting the global economy, especially the most advance countries in Europe and North America, it is of utmost importance for ASEAN countries to rebalance their growth model by shifting their focus to Asia—they need to capture larger economies of scale by creating a borderless economic community among themselves and with their neighboring countries. And they need to innovate to increase factor productivity.

ASEAN countries' long term development aspirations include not only quantitative targets, as summarised by the speed of GDP growth, but also a better citizens' quality of life. Defining quality of life through proper indicators is, however, a difficult task. One starting point is the human development index (HDI) created by the United Nations Development Programme (UNDP), combining per-capita GDP with indicators of health and education. Beyond HDI, several authors have proposed to measure quality of life through a complex set of indicators covering infrastructure, job opportunity and working conditions, social inclusion, physical security, environment, and governance (Stiglitz, Sen and Fitoussi, 2009; Niimi and Zhuang, 2012).

However, measuring quality of life can be a challenging task, especially for ASEAN countries, which often use different metrics for similar variables, not to mention the fact than in many cases data are simply not available. When

intraregional comparisons can be sensibly made, 2030 targets to improve ASEAN citizens' quality of life can be set, for example, in terms of the current (2010) OECD countries' average. This approach is the one followed by the "ASEAN 2030" study (ADBI, 2013a).

Based on the development prospects discussed above, the remainder of this section will briefly review some of the main economic trends affecting ASEAN's long-term growth and development, including opportunities created by the rapid expansion of the middle class and the trend towards urbanization. It will also analyse the challenges posed by the aging population and the need to ensure energy security and protect the environment. Grasping the key factors behind these trends is important to identify the role ASEAN central banks can play to support the region's economic development fulfilling aspirations for a 'RICH' ASEAN by 2030, eventually realising the Asian century by 2050.

3.3 Expanding Asia's Middle Class

Decades of rapid economic growth contributed to remarkable poverty reduction in Asia. The poverty ratio for the entire region, defined as living on less than $1.25 a day in terms of purchasing power parity (PPP)—calculated using 2005 prices—has dropped from 41.2% in the early 1990s to 17.4% in the late 2000s[6]. Recent estimates for Asia as a whole suggest that by 2030 about 40% of the region's population will be living with an income below or equal to US$4 (in PPP terms) a day—well above the poverty line. Compared with other regions, by the same year Asia is expected to host about one third of total world's population with a daily income above US$4. As a consequence, Asia's expanding middle class is expected to create a large demand for products and services worldwide (Roland-Holst, Sugiyarto and Loh, 2010). Due to the sheer size of population, India and the PRC will account for the largest proportion of this change. In relative terms, however, major improvements are expected to occur in CLMV countries, as suggested by Table 2.

The eradication of poverty and the region's increasingly affluent society is expected to fuel economic growth by expanding Asia's internal demand. A recent study by KPMG (2012) identified four major trends defining the region's rising consumption patterns. First, as income grows, consumers will tend to diversify their preferences and habits towards goods and services enhancing self-identity

6. The figures refer to the combined average poverty ratio of Southeast, East and South Asia when data is available from ADBs' "Key Indicators for Asia and the Pacific 2012" (ADB, 2012b).

and social status more than simply focusing on material satisfaction. Second, the expanding middle class will be formed by a relatively large share of young population which pays great attention to trendiness, product quality and feedback provided by peers also through social media. Third, given the fast penetration of internet throughout Asia, sales will increasingly occur through online shopping and via mobile phone applications; virtual communication will also considerably expand to facilitate disseminating product and service-related information. Fourth, despite the trend toward urbanisation (see next section) markets are not going to concentrate only in big cities, but spread out across provincial centers, creating greater diversity in consumption patterns than in the past.

These consumption patterns will create new opportunities for business enterprises with specific local knowledge, open communication channels, and flexibility to quickly adapt their products and services in response to feedback on customers' needs. Local SMEs are in a particularly good position to take advantage of Asia's emerging middle class provided they have access to local needs and adapt to the evolving market situation. And as barriers to regional economic interdependence will go down through the realization of the ASEAN Economic Community (AEC) by 2015 and other initiatives such as free trade and investment agreements which have been proliferating in recent years (ADBI, 2013a), closer integration will generate economies of scale and make product differentiation cost effective.

3.4 Urbanisation Trend

Rapid urbanisation and the emergence of megacities in Asia is a process started in the 1970s and expected to continue in the future. Population has been increasing in Asia's urban areas principally as a consequence of rural migration searching for employment opportunities. Asia's past urbanisation trend and projections toward 2050 are shown in Table 3 (figures are from the United Nations' World Urbanization Prospects). The total number of Asians living in cities has almost quadrupled during the 40 years from 1970 to 2010—with the largest share of urban population concentrated in Northeast Asia, and Southeast Asia as the sub region showing the highest increase in relative terms. Projections for the following 40 years, suggest people living in Asia's urban areas will almost double, reaching 3.3 billion in 2050, or 64.4% of the region's total population.

Table 3 - Past Trend and Projections of Asia's urban population

Countries and Regions	Urban Population (millions)			Urban Population Ratio (% total population)		
	1970	2010	2050	1970	2010	2050
Asia	**505,669**	**1,847,733**	**3,309,694**	**23.7**	**44.4**	**64.4**
Southeast Asia	61,050	261,532	500,156	21.4	44.1	65.9
Brunei Darussalam	77	302	517	61.7	75.6	85.9
Cambodia	1,108	2,801	7,135	16.0	19.8	37.6
Indonesia	20,206	119,752	211,519	17.1	49.9	72.1
Lao PDR	259	2,054	5,418	9.6	33.1	64.6
Malaysia	3,650	20,450	37,369	33.5	72.0	86.0
Myanmar	5,973	15,388	31,394	22.8	32.1	56.8
Philippines	11,691	45,370	101,651	33.0	48.6	65.6
Singapore	2,074	5,086	6,106	100.0	100.0	100.0
Thailand	7,711	23,315	39,567	20.9	33.7	55.7
Vietnam	8,222	26,700	58,151	18.3	30.4	55.9
Northeast Asia	246,115	855,837	1,199,238	25.0	54.4	79.3
China	141,744	660,286	1,001,612	17.4	49.2	77.3
Japan	74,544	114,567	105,949	71.9	90.5	97.6
South Asia	145,348	549,344	1,255,465	19.5	32.2	52.4
India	109,447	378,775	875,383	19.8	30.9	51.7
Central Asia	14,223	24,694	45,133	42.9	40.7	55.2
Africa	86,568	400,651	1,264,629	23.5	39.2	57.7
Europe	412,199	536,611	591,041	62.8	72.7	82.2
North America	170,691	282,480	395,985	73.8	82.0	88.6
World	**1,352,419**	**3,558,578**	**6,252,175**	**36.6**	**51.6**	**67.2**

Source: United Nations, 2012. World Urbanization Prospects. 2011 Revision.

During this period, South Asia is expected to show the highest increase among Asia's sub regions with more than 1.255 billion people living in cities by 2050, while Northeast Asia will lead in terms of urbanisation rate (79% of total population). Southeast Asia's urban population is projected to grow to about 400 million by 2030 (not shown in the table) and eventually to 500 million by 2050, accounting for 66% of its total population. Looking at ASEAN countries' projections, remarkable changes will likely affect not only the largest members such as Indonesia or Malaysia, but also smaller and least developed countries

such as Cambodia and Lao PDR, which will see an addition of respectively 7.1 and 5.4 million people living in cities by 2050—with the urbanisation rate increasing to 38% and 65% respectively in these two countries.

Asia's massive urbanisation presents several challenges related to widening income inequality as rural areas may be left behind, leading to a breakdown in the countries' internal social cohesion. Moreover, local authorities need to ensure proper access to clean water, energy, health care, and sanitation in expanding urban areas, especially for people residing in slums or squatters. Improving citizens' quality of life and living standards requires considerable investment in urban infrastructure and transportation systems. In addition, environmental risks arising from carbon emissions and pollution in densely populated urban areas magnify the effects of climate change, leading to more frequent threats of natural disasters (Kholi, Sharma and Sood, 2011).

At the same time, Asia's trend towards urbanisation presents several opportunities. Economic growth may accelerate due to higher productivity, as several studies have shown that productivity in urban areas is sizably higher than in rural areas. Increasing population density in relatively small areas makes it also easier and more cost effective to deliver essential public services such as water and sanitation. The demand for new and higher quality service will generally increase. Other opportunities from urbanisation are related to the management of natural resource and the environment. A large wave of investment is being mobilised to create "smart" and "compact" cities using new technologies that promote energy conservation and efficiency improvements in the way new buildings and transportation systems are being constructed and maintained (ADB, 2012b).[7]ASEAN countries can also remove inefficient fuel subsidies and impose congestion and emission charges—as Singapore did—to make markets fully reflect social costs. In sum, by adopting policies for inclusive and eco-friendly urbanisation, Asian countries can sustain growth and development while enhancing quality of life.

3.5 Ageing Population and its Challenges

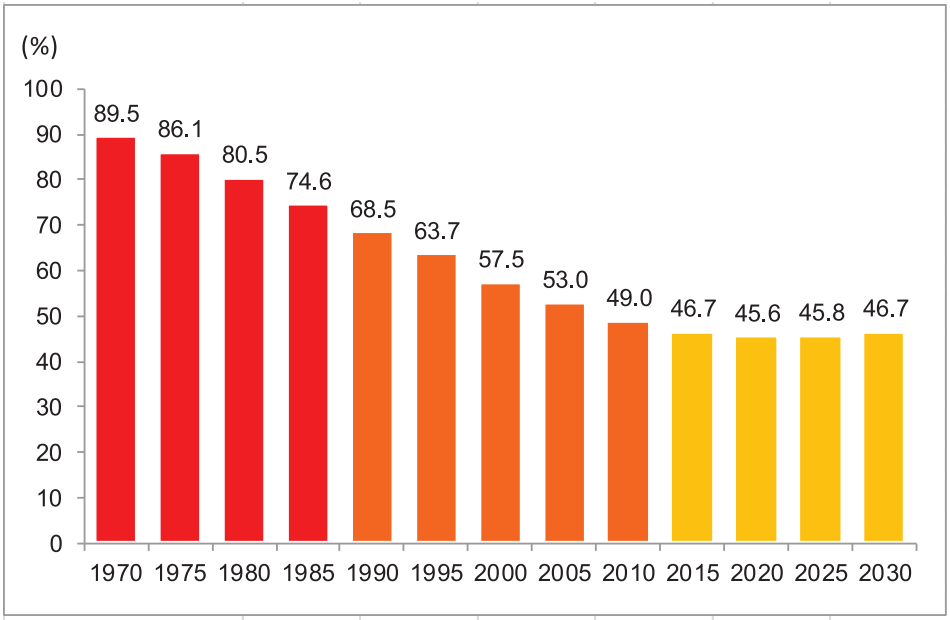
Besides urbanisation, another key feature of Southeast Asia's population dynamics lies in a significant shift towards a progressively ageing society. Over the last few decades, ASEAN countries have experienced—albeit with significant intraregional differences—a drastic deceleration in population growth rates

7. See the special chapter on "Green Urbanization in Asia".

associated with a decline in birthrates, infant and maternal mortality rates, and a parallel increase in life expectancies. As a consequence ASEAN citizens are getting older. In 2010 only 6.8% of total population was above 65 years of age—this share is expected to increase to around 11% in 2030. Once again, the intraregional diversity is quite pronounced, as these shares will likely approach 24% in Singapore and 18% in Thailand, while they are expected to remain around 6% both in Lao PDR and the Philippines (Jones, 2012).

Aging population is associated with the increasing need for the working population to support the elderly—and those who are too young to work. Figure 2 shows ASEAN's population dependency ratios, calculated as the sum of people aged between 0-14 and those aged 65 and more, over people aged between 15 and 64. The combined ratio for ASEAN countries has been slowing down since the 1970s and it is expected to further decline until around the year 2020, after which the trend will revert, underlying a major change in the region's age structure over time.

Figure 2 - Population Dependency Ratio in ASEAN



	1980	1990	2000	2010	2020	2030
Brunei Darussalam	71.3	61.8	49.8	42.4	40.8	41.8
Cambodia	72.1	87.4	80.5	55.5	48.6	43.9
Indonesia	80.7	67.3	54.7	48.3	43.8	44.2
Lao PDR	90.3	89.7	85.0	62.3	49.1	44.4
Malaysia	74.1	68.6	59.1	54.1	50.1	52.4
Myanmar	79.6	67.7	55.2	44.4	41.1	42.0
Philippines	86.9	79.5	71.5	64.1	57.3	54.9
Singapore	46.6	37.1	40.5	35.9	41.1	60.8
Thailand	75.6	53.2	44.7	41.7	41.8	48.6
Viet Nam	84.0	75.5	60.5	42.1	41.6	43.1
ASEAN	80.5	68.5	57.5	49.0	45.6	46.7

ASEAN=Association of Southeast Asian Nations; Lao PDR=Lao People's Democratic Republic.

Note: The population dependency ratio measures the share of people the working age population must support. It is calculated as the sum of people aged between 0-14 and those aged 65 or more over people aged between 15-65.

Source: Adopted from ADBI (2013a); Original data retrieved from United Nation Population Division, World Population Prospects: the 2010 Revision.

As dependency ratios decline, countries enjoy a demographic dividend. However, as populations age, the social support system becomes heavier, adding pressure on the working age population. But ASEAN social security systems and health services are generally weak, with most of the countries spending less

than 1% of their GDP on welfare (except for Brunei Darussalam and Singapore). Moving forward, it is therefore imperative for ASEAN countries to create proper systems to deliver social security, adding on to the existing informal family and community-based systems which are commonly used to take care of the elderly and non-working citizens. Financing social security through pension funds and other mechanisms imposes however a huge fiscal burden on the government. As with a comprehensive package of social security services fiscal balance is hard to sustain, the private sector also needs to play a role in offering financial products to complement the public social security system and in financing investment projects in health care, safe water and sanitation (ADBI, 2013a).

The socioeconomic impact of the aging population is immense and governments need to address a number of issues including how to maintain high GPD growth rates and how to effectively manage labour force allocation to benefit from the energetic young population and the more skilled and experienced elderly citizens as well—which requires a great deal of flexibility. Sustained economic growth is necessary to create new jobs and the authorities need to provide, in parallel, to new workers the future skills through enhanced education aimed at increasing productivity and innovation. National education systems must be effectively designed to close the gap in labour supply and demand and provide lifetime learning systems to train and upgrade worker's skills.

3.6 Energy Security and the Environment

Asia's rapid economic growth translates into rising energy consumption. Data from the International Energy Agency (IEA 2009) show that emerging Asia, particularly the PRC, India and ASEAN countries, have more than doubled their energy consumptions from 1990 to 2007 (Figure 3). This growing trend is expected to continue in tandem with further economic expansion and by 2030 Asia's share of total world's energy demand will likely increase to 44.1%, from 35.2% in 2007, with the PRC and India acting as the main drivers in the acceleration of Asia's energy demand. In particular, between 2007 and 2030, the energy demand is expected to increase yearly by 2.9% in the PRC, and by 3.4% in India. During the same period, the combined demand from ASEAN countries is projected to grow at a relatively fast 2.5% pace annually.

The rapid expansion of energy demand presents two major challenges to ASEAN authorities: threats to the environment and energy security. Indeed, proper natural resource management and environmental protection requires balancing between the needs for protection and exploitation of resources required to fuel economic growth. Products in markets are often not appropriately priced. Corporate balance sheets rarely account in an accurate way for environmental or social costs (ADBI, 2013b; Kohli, Sharma and Sood, 2011). ASEAN's energy mix includes fossil fuels (oil, natural gas, coal) and renewables (biofuels, hydropower, geothermal, solar and wind power), as no nuclear energy is currently used, although this situation might change in the future. Projections by the Institute of Energy Economics (2011) suggest that despite increasing initiatives for energy saving and environmental protection, total ASEAN primary energy use will more than double between 2007 and 2030, with the share of fossil fuels increasing to more than 77.4% of the total (from 72.4% in 2007).[8]

The increasing dependency on fossil fuels creates two sorts of problems. First, it raises ASEAN countries' exposure to volatile world oil prices. Second, it contributes to global warming and to further pollute the environment, with several negative effects on long-term economic growth as well. In addition, ASEAN countries are increasingly facing issues related to energy security, as their dependence on energy imports has been growing over the years, showing a rising trend—also for countries that have been traditionally oil exporters such as Indonesia, Malaysia, and Viet Nam (ADBI, 2013b).

Regional cooperation initiatives are needed among ASEAN countries and between ASEAN countries and the wider Asian region to ensure future energy security and to properly balance the needs to sustain economic development with those to protect the environment. A general effort should be made to increase energy efficiency as well as diversification, also by investing in new technologies. ASEAN should develop a 'green' development strategy that focuses on policies and programmes, encouraging the creation of a number of eco-friendly products and processes (ADBI, 2013a).

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8. See ADBI, 2013a and Achayuthakan & Ongsakul, 2012. The Institute of Energy Economics' projections actually include two scenarios. The one reported in the text assumes the adoption of "alternative policies" by ASEAN authorities. The "business as usual" scenario suggests an even more problematic picture, where the total consumption of energy between 2007 and 2030 almost triples, and share of coal in the total energy mix increases to 30% (from 15% in 2007).

4. Economic Integration in Southeast Asia

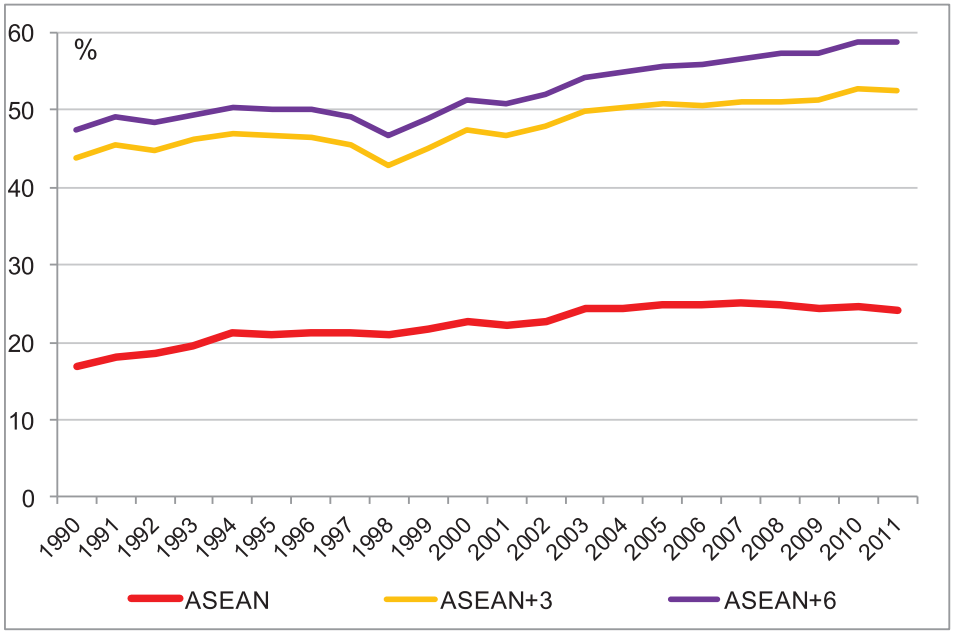
Understanding the key trends in regional economic integration is also important to identify the role central banks can play in promoting a 'RICH' ASEAN and realising the Asian Century. This section looks at ways market forces support regional dynamism through the establishment of production networks, investment in infrastructure and connectivity, and the development of financial markets.

4.1 Production Networks

By establishing closely linked regional production networks in a number of strategic industries, market forces have greatly contributed to increasing economic integration in Asia. Production networks are being created through direct investment—local and foreign—operating in nexus with intermediate goods' trade before products are sold in their final markets. Industries such as automotive and electronics (as well as many others) require the assembly of several parts and components, which can be produced in different countries, depending on local comparative advantages. The outcome is an articulated network of intermediate goods' sourced from various countries (ADB, 2008; Hiratsuka, 2008; WTO-IDE, 2011).

A basic indicator of intraregional interdependence is the share covered by the region in countries' total trade. Figure 4 shows the trend for the last two decades of intraregional trade shares between ASEAN, ASEAN+3, and ASEAN+3 countries. Apart from a marginal flexion experienced in the aftermath of the 1997/98 Asian financial crisis, the figure shows a continuous increase in intraregional trade shares due to rising regional economic interdependence. By the year 2011, the intraregional trade share for ASEAN was close to 25%, that for ASEAN+3 more than 50%, while the ASEAN+6 share was close to 60%, a value not too far from that the European Union (EU) in the same year.

Figure 4 - Evolution of Intraregional Trade Shares



ASEAN=Association of Southeast Asian Nations; ASEAN+3=ASEAN plus Japan, the People's Republic of China, and the Republic of Korea; ASEAN+6=ASEAN+3 plus Australia, India, and New Zealand.

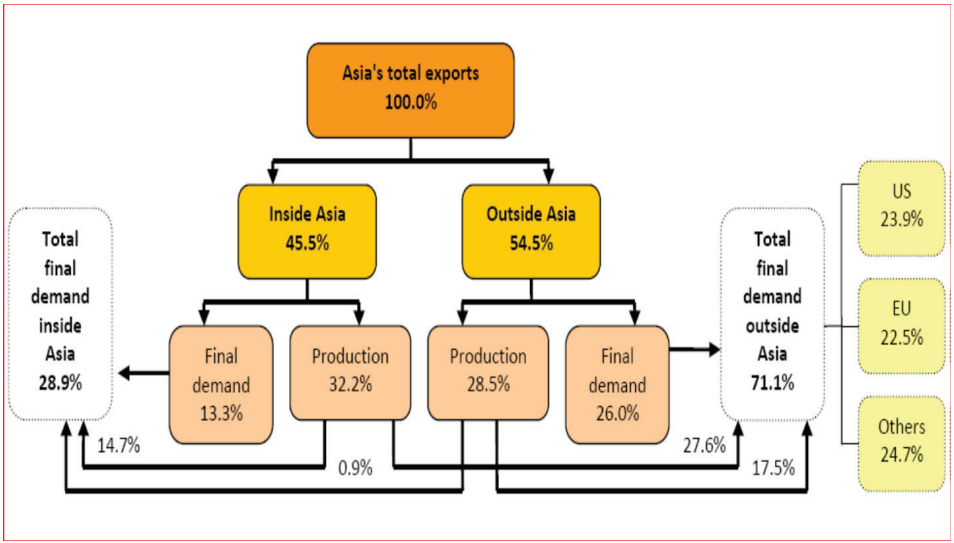
Note: Intra-subregional trade share of region i is defined as IT share$_i$ = $(X_{ii}+M_{ii})/(X_{i.}+M_{i.})$; where X_{ii} = exports of region i to region i, M_{ii} = imports of region i to region i, $X_{i.}$ = total exports of region i, and $M_{i.}$ = total imports of region i.

Source: International Monetary Fund (IMF). Director of Trade Statistics.

Given the extensive presence of production networks, a very large part of intraregional trade in Asia occurs in intermediate parts and components, while final products tend to be exported mainly to Europe and North America. An idea of this feature of regional production networks can be grasped by decomposing Asia's trade to calculate the final demand of its exports. Figure 5 is replicated from an ADB study (ADB, 2010) where the 2004 share of intraregional and extraregional exports used for production purposes (parts and components serving as inputs for final assembly production) is divided from the share directly used to serve the final demand. The result of this analysis shows that while Asian countries export 45.5% of their products within the region, more than 70% of this share (or 32.3% of total exports) was re-used in production activities. In sum, through proper export de-composition and re-construction of its destination

by final demand, this exercise suggests that only 30% (or less) of Asia's total exports were destined to serve the region's demand for final products: the remaining 70% (or more) went to serve demand for final products outside Asia (mainly the US and Europe).

Figure 5 - Final Demand of Asia's Exports



Note: Asia includes: Hong Kong, China; Japan; the People's Republic of China; the Republic of Korea; Taipei, China; Indonesia; Malaysia; Philippines; Singapore; Thailand; Viet Nam; Bangladesh; India; and Pakistan.

Source: Adopted from ADB (2010).

Other recent estimates ADB (2012a) suggest that Asia's trade in intermediate goods accounted for about 50% of the region's total exports in 2010, and that more than 60% of intermediate exports were intraregional. Centering on the PRC as an assembly hub, Asia serves a world major source of manufacturing production, a feature which was also described as "Factory Asia". As regional income increases and the demand from advanced regions such as Europe and the North America slows down, also as an effect of the global economic and financial crisis of 2008/09, Asia's internal demand for final goods is expected to increase. From a growth model based on the expansion of export to other parts of the world, Asia has started a growth re-balancing process with a focus on the region's internal demand, which is also linked to increasing South-South interdependence and moving beyond the Factory Asia concept (ADB, 2013a).

Based on their pronounced diversity in terms of development stages and comparative advantages, ASEAN countries may take advantage of these trends for specializing in market niches by developing technological competencies in a wide range of products and services. The fragmentation theory explains how regional production networks can evolve due to changing internal and external conditions. Industrial agglomeration typically happens as investment—including FDI—is attracted to specific locations due to the presence of positive factors such as good infrastructure, cheap labour supply, and a positive attitude of local authorities to create a convenient business environment, and good access to markets and information.[9]

ASEAN countries have developed competitive and extensive industrial production agglomeration sites especially in Singapore, Thailand, and Malaysia, with Indonesia and the Philippines, also participating in tightly knit networks. As far as CLMV countries are concerned, while Viet Nam has started good dynamism to become involved in regional production networks, Cambodia, Lao PDR, and Myanmar are still left relatively outside—although Cambodia was able to create good clusters for garments production.

While assembly factories are often run by multinational corporations, the bulk of parts and components are being produced by SMEs. Electronics, automobiles, machinery, information and communication technology are Industries where SMEs are particularly active, although an increasing number of SMEs have been recently expanding their presence in various service industries, including tourism (Harvie, 2010). Indeed, SMEs play a vital role in Asia's production networks. A recent study estimated that in 2008 22% of SMEs from five ASEAN countries (Malaysia, Thailand, Philippine, Indonesia and Viet Nam) participated in production networks, accounting for 23% of total exports (Wignaraja, 2012).[10]

One typical advantage SMEs have in participating in production networks relates to their flexibility and adaptability. They usually can quickly modify their production lines and customize their products following changes in demand. At the same time, however, SMEs face several constraints due to limited financial

9. See Kimura and Obashi, 2011.

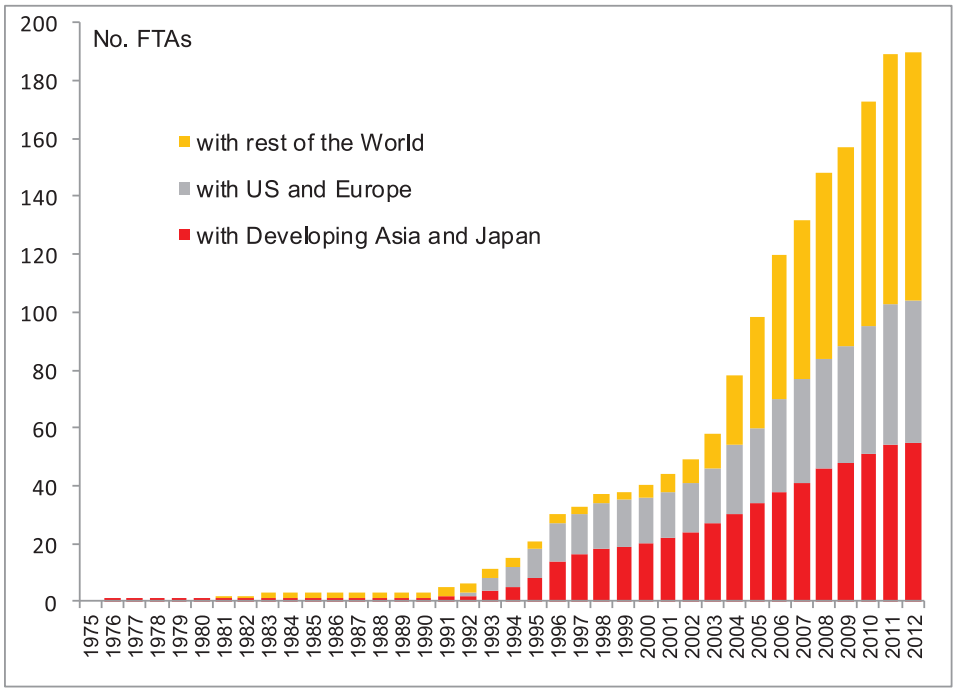
10. Data for Malaysia and Thailand refer to 2006.

and human resources as well as scarce access to information networks compared to larger firms. ASEAN policy makers have an important role to play in facilitating the enlargement of regional production networks through further trade liberalisation and facilitation. They can also introduce several initiatives to bring CLMV countries in and promote closer participation of SMEs in regional production networks.

As market forces are pushing for closer economic integration among ASEAN countries and within the wider East Asian region through the trade and investment nexus and the establishment of production networks, economic authorities have helped this process through various regional cooperation initiatives including the negotiation and signing of free trade—and investment—agreements (FTAs). Several studies have documented how regional FTAs have been proliferating since the early 2000s (Capannelli and Endriga, 2013; Kawai and Wignaraja, 2013). ASEAN countries have played a pivotal role by introducing the first plurilateral agreement in the region, the ASEAN Free Trade Area in 1992, and by later signing important bilateral agreements with key trade and investment partners (Australia-New Zealand, PRC, India, Japan, and Korea).

Figure 6 shows how fast Asia's FTAs have been rising over the last few years. The exponential growth can be largely attributed to the need for Asian countries to remove trade barriers in order to broaden regional production networks and intensify economic integration, against the stalling of global trade negotiations under the Doha Round of the World Trade Organization (WTO). By the end of 2012, ASEAN countries concluded a total of 40 agreements, with a further 44 agreements either under negotiation, or being proposed. Out of the total 84 agreements, 38 (or 45%) were with Asian and the rest with non-Asian partners (ADBI, 2013a).

Figure 6 - Growing Asia's FTA (by Partner Region)



FTA=Free Trade Agreement; US=United States.

Note: The figure referes only to signed FTAs and FTAs under negotiation. Proposed FTAs are not included. Numbers are cumulative as of January 2012.

Source: ADB. Asian Regional Integration Center. FTA Database available online (accessed March 2013).

Recently, the discussion over the direction ASEAN countries should take with regard to future FTAs has intensified with the proposal to establish a Trans-Pacific Partnership—including countries such as Brunei Darussalam, Malaysia, Singapore, and Viet Nam—aiming to introduce a "high-quality" agreement among selected Asia-Pacific Economic Cooperation (APEC) members, and negotiations to start an ASEAN-driven agreement, the Regional Comprehensive Partnership, following a bottom-up approach by inviting the Plus-Six countries which already have bilateral FTAs with ASEAN to join a broader framework and possibly consolidate existing arrangements into a region-wide group (ADBI, 2013a).

4.2 Infrastructure and Connectivity

Better connecting Asian economies by extending and upgrading regional infrastructure networks is an extremely important step to achieve a physically integrated market and to consolidate supply chains and production networks in the region. Further developing regional infrastructure is important to enable ASEAN countries to strengthen their trading positions with other countries, within and outside Asia, and improve competitiveness of ASEAN-based companies in all aspects of their economic activities. In particular, the process of economic opening and political normalisation recently started by Myanmar offers a huge potential to improve connectivity between ASEAN and South Asian countries and to further diversify production networks in the region.

Strengthening connectivity and developing infrastructure are crucial steps to promote economic development of isolated or peripheral areas and provide services where they are needed (electricity, telecommunication, water and sanitation). By reducing economic distance, improved connectivity lowers the cost of physical movement and trade, boosts firms' competitiveness, facilitates achieving greater economic efficiency, and supports more effectively interlinked production networks.

The concept of connectivity is, however, broad and not only limited to infrastructure. The "Master Plan on ASEAN Connectivity", adopted by ASEAN leaders at their 2010 Viet Nam Summit includes three pillars. The first pillar—physical infrastructure—covers multimodal transport systems (airports, railways, roadways, ports), logistics facilities, energy distribution, as well as information and communication networks. The second pillar—institutional framework—refers to the policy regime or "soft infrastructure" (i.e. facilitation of customs, migration, labour mobility, quarantine, security procedures) and focuses on developing an efficient, properly governed, inclusive, and business-friendly system which is capable to fully utilize "hard" infrastructure. It relates to issues such as the elimination of non-tariff and other behind-the-border barriers; the harmonisation of national regulatory standards; and the abatement of other institutional barriers to integrating economic activities. The third pillar—people-to-people exchange—covers education systems, tourism flows, business-to-business relations, migration issues, remittances, and other social and cultural exchanges important to create a sense of common identity, which is a basic element for regional community building.

Investing to expand infrastructure is a prerequisite to improving national and regional connectivity. But infrastructure development requires massive investments

which are indeed difficult to mobilise. A recent study estimated that for the period 2010-20 Asia's total infrastructure investment needs are USD 8.3 trillion, approximately USD 750 a year. About half of such investment is needed to generate electricity; 30% for transportation, and the rest for telecommunications, water, and sanitation. ASEAN countries cover a large share of these investment needs (ADB/ADBI, 2009).

Moreover, the quality of available infrastructure varies widely across the ASEAN region. Table 4 summarises the results of the infrastructure index for ASEAN countries used in the Global Competitiveness report, the World Economic Forum prepares yearly. The index shows huge discrepancies across countries. While Singapore competes at the highest levels in the world, countries such as Viet Nam, the Philippines, and Cambodia are among the world's worst performers, even behind India. After Singapore, Malaysia and Thailand are the countries showing a higher infrastructure quality in ASEAN.

Despite Asia's huge infrastructure investment needs, resources are hard to be found. Multilateral development banks and bilateral agencies together can only provide less than 5% of estimated investment needs and funds are also difficult to be raised from the private sector which has to get into partnership schemes with public agencies, facing inherent uncertainties and risks. Challenges become particularly daunting when regional projects are required because it is difficult to properly allocate cost shares across countries based on expected future benefit streams. Moreover, the realisation of successful public-private partnerships is particularly complicated with returns on investment being assessed differently from the multiplicity of agencies that need to be involved in projects (ADB/ADBI, 2009).

Table 4 - Quality of Infrastructure in Selected Asian Countries

	Infrastructure Index	
	Rank	Score
Singapore	2	6.5
Malaysia	32	5.09
PRC	44	4.63
Thailand	46	4.62
Brunei Darussalam	57	4.2
Indonesia	78	3.75
India	89	3.6
Viet Nam	95	3.34
Philippines	98	3.19
Cambodia	104	3.08

PRC-People's Republic of China.

Note: Rank is based on a sample of 144 economies and score ranges from 1 to 7, with 7 indicating the highest efficiency

Source: World Economic Forum. The Global Competitiveness Report 2011-2012

Asia's massive infrastructure needs require substantial additional resources to finance both national and regional development projects. ASEAN countries took an important step in the direction of facilitating regional infrastructure development projects' funding by establishing in 2011 the ASEAN Infrastructure Fund (AIF). Its initial capital consists of almost USD 500 million raised from sovereign sources—the largest contributors are ADB, Malaysia and Indonesia—with additional funds expected to be sourced through debt purchased by foreign reserves. Project financing under AIF is likely to start in late 2013 and total lending operations to 2020 are estimated at around USD 4 billion, of which USD 300 are expected to be sourced through public-private partnerships—for which project development mechanisms are being worked out by ADB and Singapore.

Mechanisms for developing cross-country infrastructure and connectivity projects have been successfully implemented through sub-regional initiatives, also helped by regional development banks and bilateral aid agencies. For example, the Greater Mekong Sub-region, covering Cambodia, Lao PDR, Myanmar, Thailand, Viet Nam and the PRC, has introduced the concept of "economic corridors", which go beyond the simple idea of connectivity based on transport infrastructure, to include other important aspects for development such as trade and investment facilitation, capacity building initiatives, and the generation of economic benefits for transit zone, which would otherwise normally be left out of the equation when infrastructure projects are designed. In archipelagic ASEAN,

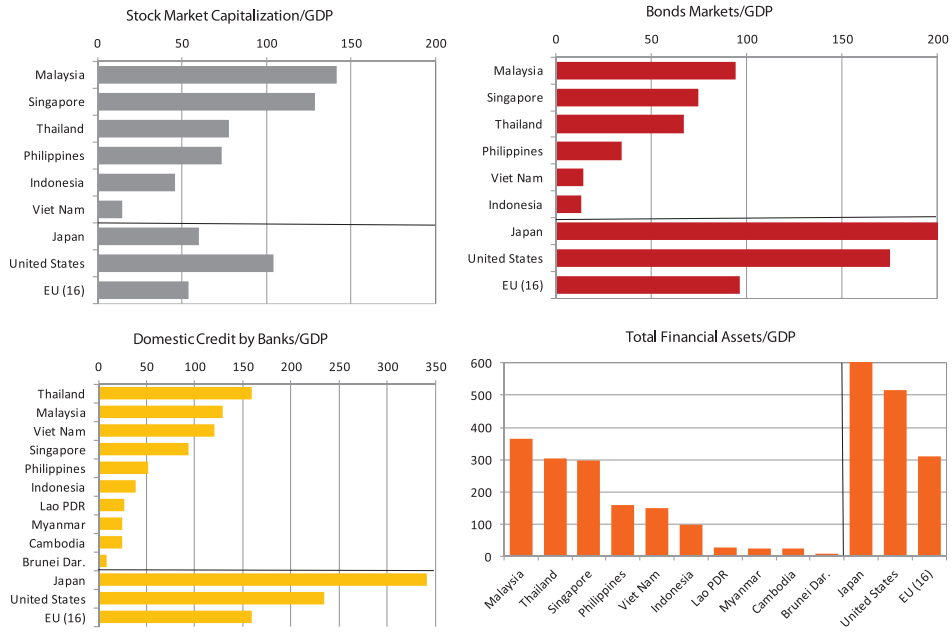
other sub-regional cooperation initiatives such as the Brunei Darussalam-Indonesia-Malaysia-Philippines East ASEAN Growth Area and the Indonesia-Malaysia-Thailand-Growth Triangle have also developed plans to strengthen connectivity through developing maritime transport infrastructure, including investment to expand "roll-in roll-out" systems that facilitate cargo shipments across seaports in the region (ADBI, 2013a).

4.3 Financial Sector Development and Integration

The pronounced diversity among ASEAN countries becomes evident in observing the region's financial landscape. Several domestic financial markets remain insufficiently wide and deep. Although banking services are usually quite developed, financial inclusion lags behind in several countries—particularly Cambodia, Lao PDR, and Myanmar—where many SMEs, and the poor, lack access to financial services. Since the Asian financial crisis of 1997/98 capital markets—bonds and equities—have continued to recover from a low base to start with and thus there is ample room for further increases.

As Figure 7 shows, measured in terms of total financial assets to GDP ratios, financial systems are generally well developed in one group of countries comprising Singapore, Malaysia and Thailand, which have comparable ratios to the EU. A second group represented by Viet Nam, the Philippines, and Indonesia have ratios that are about one third those of the previous group, even though the ratios fall generally within the range of their international peers, as defined by per capita income. Finally, Brunei Darussalam, Myanmar, Cambodia, and Lao PDR show minimal financial development (ADBI, 2013a).

Figure 7 - Development of Financial Market in ASEAN: Total Financial Assets as a % of GDP (2011)



ASEAN=Association of Southeast Asian Nations; BRU=Brunei Darussalam; CAM=Cambodia; EU=European Union; GDP=gross domestic product; INO=Indonesia; LAO=Lao People's Democratic Republic; JPN=Japan; MAL=Malaysia; MYA=Myanmar; PHI=Philippines; SIN=Singapore; THA=Thailand; VIE=Viet Nam; US=United States.

Notes: (i) Latest available data for Myanmar and Lao PDR are 2004 and 2010, respectively; (ii) Bond market data refer to local currency bonds outstanding (government and corporate); (iii) EU (16) ratio of domestic credit to GDP was computed using GDP as weights; (iv) EU (16) data refer to the following countries: includes Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Poland, Portugal, Spain, Sweden, United Kingdom.

Sources: (i) Asian Development Bank, Asian Bonds Online Database. Available: asianbondsonline.adb.org/regional/data.php#bond_market_indicators (accessed August 2012); (ii) World Bank, World Development Indicators Database. Available: http://databank.worldbank.org/ddp/home.do?Step=2&id=4&DisplayAggregation=N&SdmxSupported=Y&CNO=2&SET_BRANDING=YES (accessed August 2012); (iii) Bank for International Settlements (BIS) Statistics online. Available: http://www.bis.org/statistics/secstats.htm (accessed August 2012).

The definition of total financial assets used in the above figure includes domestic credit provided by banks, total equity markets' capitalisation, and the value of total bonds outstanding. ASEAN financial systems are largely based on bank lending, which on average covers the largest share—close to half—of total financial assets. Malaysia and Singapore are, however, exceptions as in 2011 their stock market capitalisation to GDP ratio was about 140% and 130%, respectively, well above the 104% level in the US and 54% in the EU. Since the Asian financial crisis of 1997/98, capital markets of respectable size have also developed in Thailand, Indonesia, and the Philippines (Figure 8).

While equity markets of ASEAN countries are more developed than bonds', only Singapore's stock market is of world-class size: none of the other regional exchanges fall among the world's 20 largest markets in terms of either capitalization or trading value. Prompted by rapid growth in government bonds,

during the last 10 years local currency bond markets soared in Indonesia, Malaysia, the Philippines, Singapore, and Thailand. Markets for corporate bonds remain, however, still limited in many of these countries, with Malaysia being again a notable exception. At the same time, capital markets remain underdeveloped—if they exist at all—in CLMV countries, with Viet Nam the most advanced among them.

Besides market size and development, accessibility to financial services also varies substantially across ASEAN countries (Table 5). Singapore, Malaysia, and Thailand top the list for number of deposit accounts (per 1,000 adults), while Cambodia, Lao PDR and Myanmar (not shown in the figure) remain considerably below the average, not only in ASEAN, but also worldwide. Indonesia, Malaysia, the Philippines, Singapore, and Thailand show comparable figures on the number of bank branches per 1,000 adults. But Cambodia, Lao PDR, and Myanmar lag, again, largely behind. As far as number of bank branches and automated teller machines (ATM) per person are concerned, most of the ASEAN members still need to broaden access to their domestic banking services, and this is especially true for CLMV countries. Integration of ASEAN financial markets offers a large growth potential. While significant progress has been made since the introduction of structural reforms in response to the 1997/98 Asian financial crisis, ASEAN financial integration has still a long way to go (Capannelli, 2011).

Table 5 - Features of ASEAN Commercial Banking Sector

	Deposits	Loans	Outreach	
	Accounts per 1,000 adults	Accounts per 1,000 adults	Bank branches per 100,000 adults	ATM per 100,000 adults
Cambodia	108.0	28.9	4.0	5.1
Indonesia	504.7	274.8	8.3	13.4
Lao PDR	44.3	4.0	2.6	4.3
Malaysia	1,619.9	284.1	10.5	56.2
Philippines	487.8	na	7.7	14.9
Singapore	2,134.3	967.7	10.3	58.6
Thailand	1,119.9	237.0	11.2	77.7
Vietnam	na	na	3.3	17.6
Japan	7,169.0	171.0	34.0	133.0
High income Europe	2,022.0	701.0	32.0	94.0
United States	2,021.9	na	35.7	173.8
South Asia	217.0	38.0	7.0	4.0
Sub-Saharan Africa	163.0	28.0	3.0	5.0

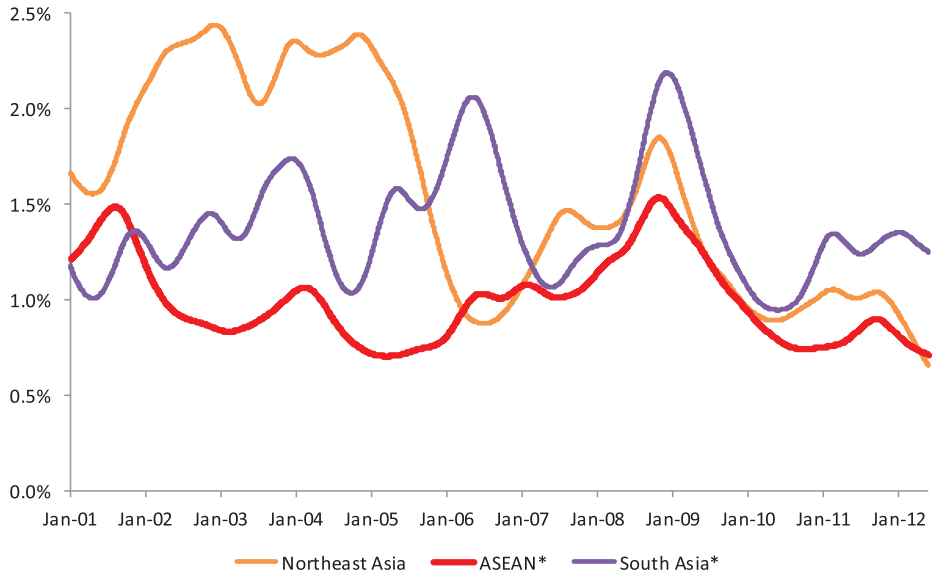
ASEAN=Association of Southeast Asian Nations; Lao PDR=Lao People's Democratic Republic; na=not available.

Note: All data are as of 2010, except for loan accounts per 100,000 for Japan and ATMs per 100,000 adults for Japan and the US, which are 2009 figures.

The extent of regional financial integration can be measured in terms of price and quantity. Price indicators measure the degree to which the price of the same financial asset is equalized across countries, while quantity indicators focus on transaction volumes measured by cross-border trade and holdings of financial asset. Figure 9 shows cross-country correlations of financial asset returns using the degree of co-movement, or cross-market dispersion of daily stock-index returns from 2001 to 2012. A declining index value (lower dispersion) indicates markets are integrating, on the assumption that under perfect capital mobility returns on similar assets would converge to the same level after risk adjustments are made. The changes in the index suggest that, over the observed period, ASEAN financial integration made constant progress, especially after the uncertainties created by the global financial crisis of 2008/09, which was

followed by concerns over the US public debt ceiling and the ongoing *eurozone* debt crisis. Within Asia's sub-regions, the level of dispersion has generally been lowest among Southeast Asian countries, which show the strongest co-movement.[11]

Figure 9 - Cross-market Dispersion of Equity Returns in Asia

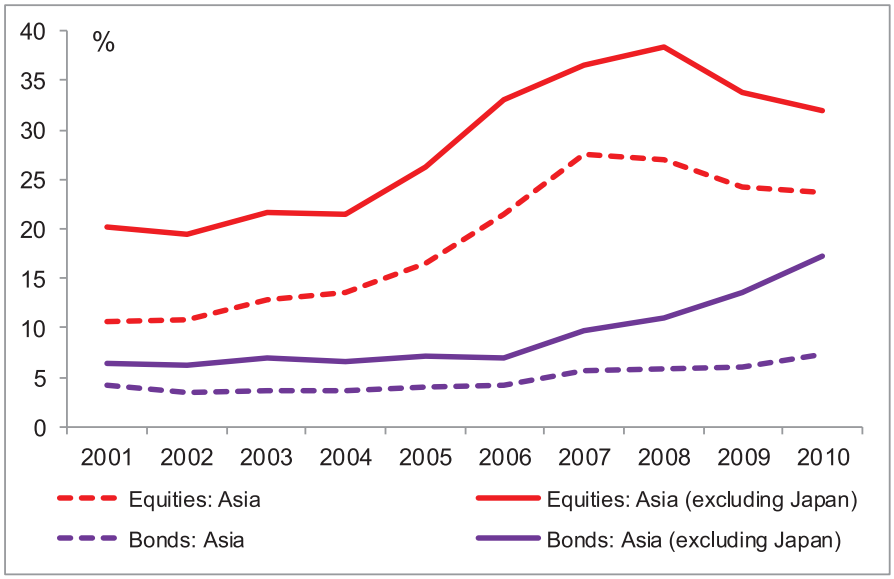


ASEAN=Association of Southeast Asian Nations.
Note: Market dispersions are calculated as the standard deviation of daily stock market return across countries included in each region, using the Hodrick-Prescott filter to de-trend the series.
Definition of Asia's Subregions: ASEAN* includes Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam; Northeast Asia includes Japan, the Republic of Korea, the People's Republic of China, Taipei, China, Hong Kong, China, and Mongolia; South Asia* includes Bangladesh, India, Kazakfstan, Pakistan, and Sri Lanka.
Source: Adopted from ADB (2013a).

Looking at the volume of financial transactions for the wider Asian region, Figure 10 suggests that Asia's intraregional equity investment increased from about 11% in 2001 to 27% in 2007, and lower at 24% in 2010. These shares measure Asian economies' total holdings—assets and liabilities—of equities where the sources and recipients are other Asian economies, as a percentage of their total global equity holdings. At the same time, the share of Asia's intraregional debt investment (bond outstanding), defined as in the case of equities, increased

11. The figure includes the six ASEAN countries for which data are available: Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam.

Figure 10 - Intra-Asia's Equities and Bonds Holdings (% shares on total investment)



ASEAN=Association of Southeast Asian Nations.
Note: Asia includes ASEAN*, Northeast Asia, and South Asia* as defined in Figure 13. Sources and destination countries in the calculation of intra-regional holdings vary due to data reporting and availability. In particular, the People's Republic of China only reports financial liabilities (as destination country), but does not report financial assets (as source country).
Source: International Monetary Fund. Coordinated Portfolio Investment Survey (accessed online in December 2012).

from about 4% in 2001 to more than 7% of the region's total global holdings in 2010. However, once Japan is excluded from the definition of 'Asia' the same shares for equities and bonds increase substantially, as Japanese investors tend to prefer non-Asian assets compared with other Asian investors. Excluding Japan, in 2010 Asia's intraregional shares reached 32% for equity holdings and 17% for bonds.

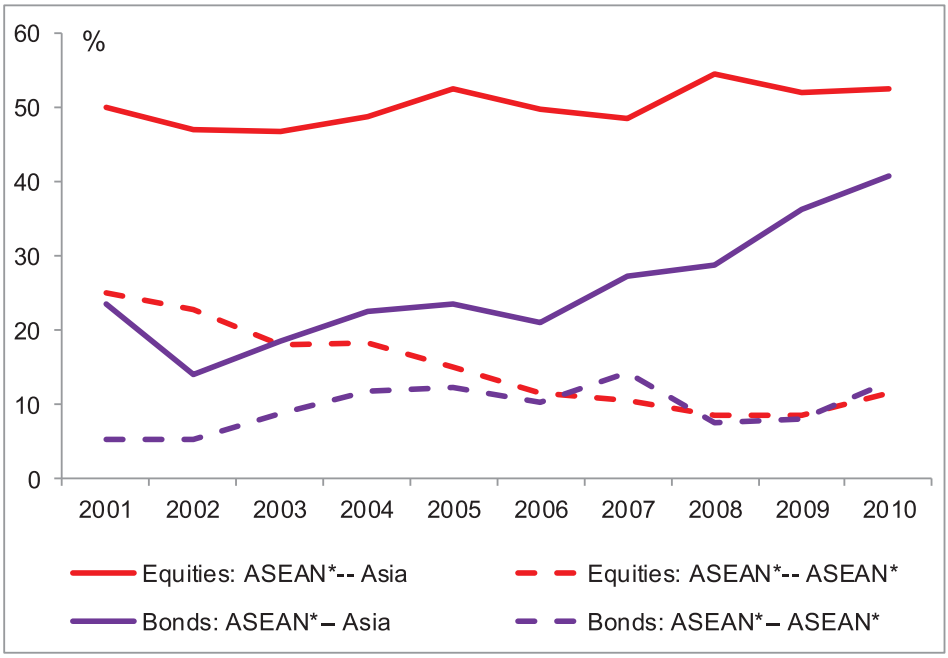
The increasing trend in intraregional portfolio investment shares observed over the last decade, amid the 2008/09 global financial crisis, was driven by debt investment from East Asian and ASEAN economies. Increased risk aversion during the global financial crisis shifted investments from equity to debt, and from emerging to advanced markets, as stock prices in developing Asian economies generally declined faster than prices in advanced markets. Monetary easing in the US and Europe also helped raise the share of bonds outstanding, as the relative returns on Asian bonds were pushed upwards.

The background data used to construct the trend of cross-border portfolio investment shown in the previous two figures are obtained from the IMF Coordinated Portfolio Investment Survey (started in 2001). This survey provides some interesting insights on the relative importance for ASEAN investors of ASEAN (intraregional) markets and the wider markets in East Asia. Figure 11 shows that about 50% of ASEAN investors' cross-border equity holdings are concentrated in East Asia. However, only a fraction of these equities are from other ASEAN countries, as the share of ASEAN equities in the total declined from 25% in 2001 to only 11% in 2010.

Similar shares for debt securities are generally lower than those for equities, but show an increasing trend over time, including for intra-ASEAN shares. ASEAN's holdings of Asian debt securities grew steadily from 23% in 2001 to 29% in 2008, and jumped to 41% in 2010 as the global crisis lingered. This trend suggests that prior to the global financial crisis of 2008/09 ASEAN investors in debt securities were generally reluctant to invest intra-regionally, tending to favor markets outside the region. Such preference has, however, changed recently as investments into ASEAN and other Asian markets have increased.

Figure 11: ASEAN's Equities and Bonds Holdings with Itselfs and Asia

(% shares on total investment)



ASEAN=Association of Southeast Asian Nations.

Note: Asia includes ASEAN*, Northeast Asia, and South Asia* as defined in Figure 13. Sources and destination countries in the calculation of intra-regional holdings vary due to data reporting and availability. In particular, the People's Republic of China only reports financial liabilities (as destination country), but does not report financial assets (as source country). ASEAN* as recipient of financial investment (liabilities) includes: Brunei Darussalam; Cambodia; Indonesia; Lao PDR; Malaysia; Myanmar; Philippines; Singapore; Thailand and Viet Nam. ASEAN* as source of financial investment (assets) includes: Indonesia, Malaysia, Philippines, Singapore and Thailand.

Source: International Monetary Fund. Coordinated Portfolio Investment Survey (accessed online in December 2012).

5. Role for ASEAN Central Banks

Based on the analysis conducted in previous sections, we can now suggest some key areas where central banks can play an effective role to support ASEAN countries' long term growth and development. We believe such role would include: (i) ensuring macroeconomic stability; (ii) financing infrastructure projects; (iii) supporting financial market development; (iv) promoting financial inclusion; (v) facilitating small and medium sized enterprises; and (vi) financing green growth.

5.1 Ensuring Macroeconomic Stability

Avoiding economic and financial crises and ensuring macroeconomic stability is a basic condition for ASEAN countries to achieve long term sustained growth and increase the quality of life of their citizens. In this regard, one of central banks' primary tasks is to ensure stability conditions are met by setting a proper monetary policy, conducting rigorous, regular monitoring and supervision of banking and other financial institutions, and properly managing capital flows. Action is required at national and regional level through policy coordination and cooperation initiatives.

The importance of macro-prudential policies became evident in the aftermath of the global financial crisis of 2008/09 not only for developed countries but also for emerging economies, as their supervisory systems are still relatively underdeveloped and inflows of foreign capitals in their markets have increased also due to weak economic recovery in advanced countries (Siregar and Lim, 2010; Park, 2011; Kawai and Morgan, 2012). By deploying macro-prudential policies ASEAN central banks can address systemic risk accumulation—a major destabilising factor. They need to conduct proper surveillance of macro-prudential indicators and introduce regulations to monitor resilience of their banking and financial systems, the possible emergence of macroeconomic imbalances, and the impact of macroeconomic shocks on their domestic financial sector.

Policies and measures cover a number of areas, including controls on capital inflows, setting proper levels of capital adequacy ratios, strengthening banks' balance sheets, regulating foreign reserve accumulation, intervening in foreign exchange markets, and influencing the growth of credit and its allocation (Moreno, 2011). Several studies have suggested central banks should take a careful approach in implementing these policies straight forwardly as they need to counter the intrinsic procyclicality of provisions (to the business and financial cycle) by choosing an appropriate set of policies and timing of responses (Gunadi and Harun, 2011; Nakornthab and Rungcharoenkitkul, 2010).

As ASEAN real and financial markets become more integrated, shocks occurring in one country are easily transmitted to its neighbours—so are policy decisions made by local authorities. Rising regional integration implies a proportional amplification of the effects of domestic policies across countries, requiring closer coordination and cooperation among regional monetary and financial authorities. Since the financial crisis of 1997/98, ASEAN+3 countries have started several initiatives for macroeconomic cooperation—where central banks have been involved—including the Finance Ministers Meeting, the Chiang

Mai Initiative (CMI) and its multilateralisation (CMIM), and the recent creation of the ASEAN+3 Macroeconomic Research Office (AMRO).

ASEAN central banks have a fundamentally important role to play in strengthening these institutions for regional integration and promoting an ASEAN-specific agenda within the broader Asia-wide framework. For example, the CMIM is a crisis prevention and resolution mechanism that provides foreign exchange liquidity by swapping local currencies for US dollars.[12] Established initially at USD 120 billion, its size was recently doubled to USD 240 billion, of which 80% is covered by "Plus-Three" countries and 20% by ASEAN countries (Gupta, 2012; Lamberte and Morgan, 2012).

Two CMIM issues of specific interest for ASEAN countries relate to voting powers and the need to design a CLMV agenda. While fundamental issues require consensus, operational decisions such as swap approvals and the extent of conditionality require two-thirds of voting share. But as Plus-Three countries currently hold more than 70% of voting shares they can make any such decision by only agreeing among themselves, without the need for receiving support from any ASEAN country. In the long-run, however, this situation may lead to frictions and become unsustainable, suggesting the importance of revising the allocation of voting shares in a way that the support of at least two or three ASEAN countries are forthcoming (ADBI, 2013a). In addition, as CLMV countries were not directly hit by the financial crisis of 1997/98, they were not included in CMI—before multilateralisation. As most of CLMV countries are also highly dollarised, they can only marginally benefit from the CMIM under its current settings. The scope of the initiative needs to be therefore expanded to cover broader needs for preventing and resolving financial (not only currency) crises in a way that it also benefits CLMV countries (Capannelli, 2011).

12. One distinct feature of the CMIM is the presence of an IMF link—mainly introduced to reduce moral hazard—according to which any amount exceeding 30% of a country's swap quota can only be withdrawn after a link to an IMF-supervised programme is established. Several scholars, however, strongly argue for the elimination of such a link because it makes the facility de-facto unusable, not offering much added value for countries to use the CMIM as an alternative, or as a complement, of what the IMF can already offer (Capannelli ,2011; Kawai, Mayes and Morgan, 2012).

While an ASEAN Surveillance Process—including policy dialogue, economic reviews, and the promotion of financial integration—was started in 1999, ASEAN countries need to strengthen their common agenda by leveraging on ASEAN+3 initiatives under AMRO.[13] In particular, while AMRO representatives are being invited to participate in ASEAN Finance Ministers meetings to brief on the region's macroeconomic and financial conditions, ASEAN policy makers should support transforming AMRO into a full-fledged international organisation as well as encourage its evolution into an Asian Monetary Fund (Kawai, 2009; ADBI, 2013a).

Given intra-ASEAN growing trade and investment interdependence, another important role for central banks is to ensure the presence of stable intraregional exchange rates during normal times, while allowing for greater flexibility in times of stress. Indeed, excessive intra-ASEAN exchange rate volatilities increase costs of cross-border trade, with negative consequences on business. Exchange rate volatility also hinders the AEC creation. It must be however clarified that the need to limit excessive exchange rate volatility does not imply the creation of a single ASEAN currency. In 2001, an ASEAN Central Bank Forum's Task Force on Currency and Exchange Rate Mechanism conducted a study to assess ASEAN's suitability for a common currency. The study concluded that the necessary preconditions and institutions were not yet present in the region to create a single currency. Instead of directly managing exchange rates, ASEAN central banks can introduce specific measures to ensure greater monetary policy convergence leading to currency stability—such as implicitly or explicitly agreeing on a common inflation targeting range (ADBI, 2013a).

5.2 Financing Infrastructure Projects

A second, fundamental area for ASEAN central banks to support long term economic growth and development of their countries is to facilitate the funding and realization of infrastructure project. Section 4.2 discussed the importance of developing national and regional infrastructure and showed that, despite massive investment needs, only a very minor portion of total requirements is currently being funded by public and private capitals. While resources could be easily mobilised from sovereign wealth funds, the of pension funds, and from central banks' foreign reserves, major issues in this area include the need to

13. Established in Singapore in April 2011, AMRO is a surveillance institution designed to support the CMIM by monitoring and analyzing regional economies and contributing to CMIM decision-making.

design proper schemes for public-private partnership and to ensure the presence of adequate incentives for all countries to join regional infrastructure projects.

ASEAN central banks have started a proactive policy to fill in the investment funding gap by mobilising the large amount of savings present in the region. For example, by starting operations of the recently-created AIF, they can play a catalytic role especially to select and implement regional infrastructure projects. A proposal was also made to create an ASEAN Infrastructure Bond Fund through which ASEAN governments—and/or central banks—in a fashion similar to the AIF would absorb credit risks and provide guarantees so as to invite private funds into infrastructure investment, helping in turn also the development of capital markets, especially local currency bond markets (Abidin, 2010). In this regard, another proposal was made to use Islamic bonds issued by the Islamic Development Bank to fund infrastructure development projects, with a view to promote economic development and social progress (ADB and ADBI, 2009).

As discussed earlier, achieving agreement among two or more countries on regional infrastructure development is a particularly difficult task, as projects are crowded out by priority usually given to national agendas and because of the need for coordination and consensus-building among participating countries on funding shares and calculations of expected costs and benefits. Although multilateral and bilateral banks such as the ADB and the Japan International Banking Corporation have been taking a leading role in funding regional infrastructure development projects, they can only cover a small part of the entire envelope. To foster regional infrastructure schemes, ASEAN central banks should reinforce the AIF by expanding its capital base and fostering closer coordination among stakeholders especially in project identification, formulation, and implementation, also through direct support in evaluating project performance. ASEAN central banks need also to further encourage participation from private entities by creating a sound business environment in which risk sharing and guarantee systems are well designed, and projects become bankable for private investors.

5.3 Supporting Financial Market Development

Section 4.3 showed that ASEAN countries' financial markets are still insufficiently wide and deep. While the banking sectors are in general well developed—albeit not as yet integrated—there is ample room for further expanding equities and bonds markets. As part of regional financial cooperation initiatives, central banks can help harmonize minimum prudential requirements across countries. ASEAN-wide standardisation of financial services' accounting

practices and payments and settlement systems will also promote further development of the region's financial—especially capital—markets. Encouraging greater regional financial integration is expected to generate gains from economies of scale, reduce costs due to enhanced competition, and improve overall banking stability and resiliency (Gochoco-Bautista and Remolona, 2012).

However, easing entry restrictions to foreign banks and insurance companies exposes domestic markets to new risks related to a possible lack of capacity to adequately assess local risks, foreign dominance of local markets, and excessive concentration on speculative cross-border transactions—leading to capital flow volatility. To mitigate such risks ASEAN central banks should set proper preconditions and sequencing for financial liberalisation and ensure information-sharing between home and host country supervisors.

Moreover, as financial globalisation proceeds rapidly and financial markets become more sophisticated, ASEAN central banks need to constantly upgrade their regulatory and supervisory capacity, promoting innovation while ensuring macroeconomic stability. With closer banking integration, there will be a need for a harmonised deposit insurance system region-wide. Central banks can help create a uniform definition of insured deposits and introduce harmonised procedures to prevent arbitrage.[14] Another important area for central banks' policy action is in the establishment of an efficient ASEAN-wide payment and settlement system combined with a harmonised platform to support the growing volume of cross-border transactions. Harmonising financial market supervision may also require developing new institutions. ADBI's ASEAN 2030 study suggests in particular the need to create an "ASEAN College of Financial Supervisors" to monitor the region's financial markets by enabling national supervisors to develop a common understanding of financial companies' risk profiles as well as ensuring the implementation of consistent and coordinated policies (ADBI, 2013a).

While ASEAN central banks should proceed to support financial market development overall, CLMV countries—especially Cambodia, Lao PDR, and Myanmar—are still at a less developed stage than other ASEAN members, with specific needs to be taken into proper account.[15] In particular, CLMV

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14. Countries currently without a deposit insurance system would need to develop one.

15. While Viet Nam has relatively more advanced financial markets than the other three CLMV countries, the degree of market development remains significantly lower than countries such as Singapore, Malaysia, Thailand, and Indonesia.

countries' central banks should focus on policies aimed at strengthening their banking sectors and take significant steps to promote financial inclusion before equity and bonds markets can be properly developed—stock exchange markets opened only quite recently in Lao PDR and Cambodia. These countries should also focus on developing deposit insurance systems and their own domestic payment and settlement systems before harmonizing them regionally.

5.4 Promoting Financial Inclusion

Taking concrete steps to promote financial inclusion is important not only for CLMV countries but for the entire group of ASEAN economies. Eventually, more inclusive financial systems help strengthen local demand and rebalance growth models towards domestic consumption. Central banks have an important role to play to improve access to finance for the poor, the vulnerable, SMEs, and other groups which tend to remain underserved by financial institutions. In particular, ASEAN central banks can help strengthen financial infrastructure—through the introduction of credit bureaus, payment systems, collateral registries—and legal and regulatory frameworks. By providing broader and fairer access to credit, lowering information asymmetries between lenders and borrowers, and improving risk assessment accuracy, better financial infrastructure helps reduce financial services' cost and promote financial innovation.

The range of initiatives central banks can take to promote financial inclusion is quite broad, from facilitating access to credit of elderly people, other vulnerable groups, and the poor, to supporting microfinance operations and credit provision to SMEs, as well as encouraging the introduction and dissemination of financial innovation. Given the ASEAN population aging trend discussed in Section 3.5, markets for financial services targeting the elderly are going to expand. Countries need therefore to improve their pension and health insurance systems, which are going to put increasing pressure on government expenditure. While social security is typically the public sector's domain, private sector firms, including microfinance institutions, should increasingly be involved in these expanding markets. Central banks can encourage product innovation through promoting the provision of supplementary pension and insurance services.

ASEAN central banks are also actively involved in microfinance business through the establishment of proper regulatory frameworks on microfinance firms (such as formal and semi-formal financial institutions, non-government organisations, cooperatives), ensuring the soundness of legal requirements, promoting transparency of transactions, and monitoring microfinance services' provision including deposits, loans, payment services, money transfer, and

insurance. Central banks also contribute to promoting financial literacy and consumer protection, encouraging microfinance customers to easily and safely use financial services.

Among ASEAN central banks, for example, the Bangko Sentral ng Pilipinas (BSP) is actively supporting private banks involved in microfinance business under the General Banking Act of 2000 which introduced the possibility of allowing non-collateralised cash flow-based lending, and also opened several opportunities facilitating private sector investment. The BSP also helps in strengthening the institutional capacity of microfinance institutions through regulations and supervision on capital requirement ratios, as well as credit risk management (ADB, 2013b; Haq, Hoque and Pathan, 2008).

By extending outreach to people living in rural areas and other remote places, technological innovation in financial services has a great potential to lower costs and raise efficiency. The rapid expansion in mobile banking is a striking feature of financial services for the poor and isolated populations, which enables the leveraging of existing infrastructure to serve a wider range of customers to gain access to financial services. Central banks have an important role to play in this area by creating a sound business environment with an appropriate regulatory framework and flexible supervision of all relevant institutions, including quasi-banks and telephone companies.

5.5 Facilitating Small and Medium-sized Enterprises

As part of financial inclusion, ASEAN central banks' contribution to SME financing deserves separate treatment given the large role SMEs play in ASEAN economies, whether it is measured in terms of shares in total number of business firms, GDP, or employment. SMEs are also essential parts of regional production networks. However, many surveys show that ASEAN SMEs face serious difficulties in accessing the credit market, due to a combination of internal and external factors. Internally, they lack human and financial resources—including collaterals' availability—and face serious informational asymmetries. Externally, the banking sector often lacks the capacity to assess SMEs' performance due to inadequate and ineffective credit systems. However, without proper financing sources, SMEs have problems creating, developing, and diversifying their economic activities, with negative consequences on countries' overall growth and development performance.

As discussed in Section 2, ASEAN central banks can facilitate SME financing—a function explicitly included in the mandates of Bank Indonesia and Bank Negara Malaysia (BNM), as shown in Table 1. In particular, among other initiatives to assist SMEs, BNM has created a "special unit" to provide information on secure loans from financial institutions and on ways to facilitate loan application process. BNM is also working closely with the local Credit Guarantee Corporation to facilitate local SMEs' access to finance. In the case of Indonesia, a central bank survey showed that large banks tend to extend only a very small part of their lending to SMEs. To promote closer participation of large banks in SME financing, in January 2013 Bank Indonesia issued a regulation instructing all banks to channel a minimum 20% of their total loans to SMEs by 2018.[16]

Other ASEAN central banks have introduced a number of schemes, facilities, and regulations to support SMEs, but there is still room for improvement especially by allowing greater diversification of SMEs financing sources. Central banks are often part of national coordinating bodies created to support SMEs and can help through the adoption of policies aimed at reducing credit risks, sharing information, and providing training—especially in the case of CLMV countries. By broadening SMEs financing sources, ASEAN central banks can also promote overall financial market development (Boldbaatar, 2005).

5.6 Financing Green Growth

Last in this review of policy actions ASEAN central banks can take to support long term economic growth, but not least in terms of priority, financing green growth is an area where more intervention is required. As discussed in Section 3.6, ASEAN countries should adopt a 'green growth' strategy. Managing the region's natural resources and securing energy sources is important to achieve sustainable development. ASEAN governments have recognised the need to adopt a green growth strategy as they seek to find the right balance between the needs for rapid economic growth with those of protecting the environment. Green growth is ultimately a paradigm that emphasises sustainable, low-carbon and socially-inclusive development, decoupling economic growth from pollution, and promoting low energy-intensive technologies. Although ASEAN countries recognise the importance of following green growth strategies, more needs to be done in terms of concrete policy actions. Challenges especially lie with the countries' readiness to introduce a proper set of 'green' policies and the availability of financing sources.

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16. Bank Indonesia defines as SMEs those firms whose net annual turnover is less than Rp 50 billion (corresponding to approximately 5 million USD).

As discussed in Section 3.4, developing smart cities is an important part of introducing a green strategy in response to the rapid urbanization trend. Besides fiscal measures and regulations to improve energy efficiency, more needs to be done for mobilizing liquidity and providing solid credit infrastructures in support of green growth. For example, one of the most urgent actions to be taken globally is to drastically reduce air pollution. The IEA estimates that in order to achieve a 50% reduction of current CO^2 emissions levels by 2050, the needed investment are in the order of USD 750 billion a year during the two decades up to 2030, and 1.6 trillion a year between 2030 and 2050 (IEA 2010). However, as funding is not readily available, the financial sector has a fundamental role to play in leveraging green growth opportunities by financing projects aimed at developing low-carbon, environmental-friendly technologies, including direct funding of research and development projects.

Financing of green growth projects typically comes from bank loans and investment in capital markets. However, as banks usually do not offer sufficient funding schemes in support of green projects, central banks need to introduce consistent and effective policies to expand green finance. Following the example of the Netherland Green Funding Scheme and the Korean Finance Corporation, governments can provide tax exemptions to companies introducing various green financial instruments, such as green funds, green savings, and green bonds through which certified green firms can receive financing at low interest rates. Government investment can also be promoted through measures regulating capital markets, where more information disclosure on firms' environmental performance is needed to protect investors (Kim, 2012).

As an example of an specific initiative focused on funding from financial institutions, in Malaysia the Ministry of Finance and BNM have recently created a Green Technology Financing Scheme aimed at improving conditions to fund viable and innovative green technology companies and attracting private sector investors by bridging information gaps between industrial firms and financial institutions, including on financial incentives and credit enhancements.

In general, ASEAN central banks can contribute to green financial sector development policies and help develop green credit. A green credit policy can be used to guide loan financing away from highly polluting, energy-consuming firms, while benefitting firms with a proven record of energy conservation and emission reduction. Central banks could monitor financial institutions and ensure that, in extending credit, borrowers' environmental performance is taken into proper consideration. Green credit policies can also promote environmental information sharing between financial corporations, environmental authorities, and

central banks—which can help integrate environmental information into credit record systems and impose sanctions to projects in violation of environmental policies.

6. Conclusions

This paper has discussed the role ASEAN central banks can play in supporting long term economic growth and development. While facing several major challenges, in the two decades leading to 2030 ASEAN countries can capitalise on several opportunities related to an expanding middle class and the move towards a borderless economic community. While closer regional integration can help strengthen competitive market positions through economies of scale, more investment in research and development can lead to innovations and generate large productivity gains.

Macroeconomic and financial stability—which central banks need to ensure—is a main precondition for sustained growth and development. Infrastructure needs to expand considerably throughout the region, and central banks can play a major role by helping catalyse financing from the private sector. And as ASEAN countries move to higher income levels, their financial markets need to deepen and widen to properly perform their intermediary function to recycle savings into productive investment. Venture capital and start-ups need to be in place and find their way into the market. These are two other areas where central banks can play a key supporting role by adopting a proper set of policies and introducing adequate financing instruments. Finally, this study stressed the importance for ASEAN central banks to contribute to equitable and sustainable development by promoting financial inclusion and financing green growth initiatives.

In conclusion, beyond the formulation of monetary policy to achieve price stability, we believe central banks in Southeast Asia can play a very important role to promote long term economic growth and development in the region.

List of Acronyms

ABMI	Asian Bond Markets Initiatives
ADB	Asian Development Bank
ADBI	ADB Institute
AEC	ASEAN Economic Community
AIF	ASEAN Infrastructure Fund
AMRO	ASEAN+3 Macroeconomic Research Office
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
BIMP-EAGA	Brunei Darussalam-Indonesia-Malaysia-PhilippinesEast ASEAN Growth Area
BNM	Bank Negara Malaysia
BSP	Bangko Sentral Ng Pilipinas
CLMV	Cambodia, Lao PDR, Myanmar, and Viet Nam
CMI	Chiang Mai Initiative
CMIM	Chiang Mai Initiative Multilateralization
EU	European Union
FDI	foreign direct investment
FTA	free trade agreement
GDP	gross domestic product
HDI	Human Development Index
IEA	International Energy Agency
IMT-GT	Indonesia-Malaysia-ThailandGrowth Triangle
Lao PDR	Lao People's Democratic Republic
MFI	microfinance institution
OECD	Organization for Economic Cooperation and Development
PPP	purchasing power parity
PRC	People's Republic of China
SMEs	Small and medium-sized enterprises
UNDP	United Nations Development Programme
US	United States
WTO	World Trade Organization

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SESSION 6

THE FUTURE OF CENTRAL BANKING: HOW RADICAL IS THE ONGOING REFORM AGENDA?

By
Johnny Noe E. Ravalo Ph.D.[1]

Introduction

It is clearly an understatement to state that global banking markets have gone through a lot in the past six years. That said, we may be overlooking the fact that there will still be even more substantive changes that need to be confronted at least for the rest of the decade.

These changes have been programmed by the international reform agenda, for which a staggered implementation has been suggested by the reform-setting bodies. This phased-in approach is an indication both of the depth of the changes required of the global standards as well as the extent to which the different reform threads are intrinsically intertwined. The very fact that we are not talking of a single reform but rather of threads of the agenda running concurrently is itself unprecedented. The problems in many of the advanced economies are quite deep so much so that they will likely face extensive difficulty should they implement these reforms earlier rather than later.

All of these changes are undoubtedly either directly caused or indirectly expedited by the difficulties that the global market finds itself in since 2007. Given the extent of the socio-economic repercussions, the case for a global re-assessment of the global best practice standards was an easy case to make. Yet, the dislocations were decidedly targeted to certain jurisdictions even if the contagion effect was much more worldwide. Thus, there is a view that the needed reforms should not be mandatory for all jurisdictions but specifically targeted to those jurisdictions which have been severely affected by the global

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1. The author is Assistant Governor, Bangko Sentral ng Pilipinas (BSP, the Philippine central bank). The material was presented initially at "*SEACEN-CeMCoA/BOJ High-Level Seminar on Finding Asia's New Sustainable Growth Model Post GFC: The Role of the Central Banks"* held at Sasana Kijang in Kuala Lumpur, Malaysia on 7 November 2012.

crisis. For a region that was as far geographically as structurally from the root of the global crisis, it is no surprise that such thinking is quite popular in Asia.[2]

For all the debate about for whom the reforms should apply, one can make the parallel argument that the concern is more towards where the prudential bar is set for the proposed minimum standards rather than the rationale for adjusting the bar in the first place. The latter argues that the previous standards do not effectively address significant risks in the market and thus require strategic (if not, wholesale) adjustments. The former, on the other hand, pertains to the absolute threshold below which jurisdictions are not expected to operate. Since national regulators have the discretion – as they have always had – to set local guidelines above the international norms, the issue then boils down to whether the new minimum standards are set too high to the disadvantage of others.

This last point is a key distinction. The reform agenda as it is phrased is no longer delimited to identifying and mitigating specific risks to financial institutions or those arising from particular transactions. Instead, the revisions to the prudential standards are now categorically geared towards the achievement of financial stability. The term "financial stability" is itself not new but the context within which we presently use it certainly has new facets for prudential oversight.[3]

This higher-order objective does not replace the longstanding banking supervision issues. Instead, it is an add-on that recognises that the risks that we have already identified can comingle and co-integrate to create system-wide dislocations, if not properly managed.

This "broader view" then explains why it is critical to make the distinction we have argued above. If there is at least unanimity that standards must be strengthened to address current market dynamics of correlated consequences, then much of the debate reverts to resolvable operational issues instead of underlying strategic principles.

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2. The reforms on trade finance, Over-The-Counter (OTC) derivatives and Financial Market Infrastructure, for example, have often been cited as examples where Asia is put at a disadvantage by the proposed "cures" when she may not have exhibited any of the symptoms of the ills.

3. See BIS (2011) for a discussion of "financial stability".

To date, in fact, we have seen some adjustments introduced to the threshold earlier outlined by the Basel Committee. Changes in the handling of trade finance and amendments to the approach for the Liquidity Coverage Ratio (LCR) are indications that differences in operations can be addressed without foregoing the underlying strategic objective.

Moving forward, further adjustments in the overall reform agenda may very well still be possible. What is already evident at this point, however, is that change is definitely inevitable. While it is true that it is the banks which must ultimately execute these changes, one should not discount the impact of all of these reforms on banking authorities. Since the concern for financial stability will affect the business model of banking, it should be equally evident that the central banking framework will likewise have to be revised accordingly.

1. The Traditional Structure of Central Banking

To better understand how the oversight framework changes under the evolving financial stability policy regime, it is important that we take a quick look at the traditional structure of central banking.

This aspect is certainly well traversed in economic literature. Bordo (2007) notes that the Swedish central bank – Sveriges Riksbank – was the "first" such institution since it was established in 1668. Quinn and Roberds (2006), however, make the case that the Bank of Amsterdam (established in 1609) is the more appropriate reference point and was the precursor of modern central banking.

Regardless of how one interprets this aspect of history, it is clear that central banks have traditionally taken the role of managing public money. By acting as the banker of the national government, it has had the mandate to issue currency "backed by its own promise" to honour such debt.[4] This was the case during the medieval wars as it is under more contemporaneous times.

For this reason, central banking and monetary policy have always been intertwined. The capacity to honour its own debt, just like any other obligation, must be actively managed and by doing so, it is likewise tacit supervision of the

4. Indeed, if the benchmark is the issuance of paper notes and the promise to repay, then central banking goes back to much earlier times as those of the Knights Templar (see Nicholson, 2001) or the even further back as the various dynasties in Chinese history.

supply of funds which the government can deploy into the real economy through direct expenditure. The pricing of such obligation (i.e., interest rates in current monetary policy stance) and controlling for the volume of the obligation (i.e., via open market operations) have always been universal concerns.

Central banking, however, was never delimited to the pure domain of public interest as it also has had a more commercial component. Safekeepers of assets recognised that the full value of the asset or its physical content need not be made available to "depositors" all the time. This opened an opportunity to deploy otherwise inactive and unused asset value. As the clients of these safekeepers evolved initially from individuals and then eventually into banks themselves, the notion of reserve banking became formalised.

The central bank thus became the banks' bank and managed what can be made available to the real economy by mandating what must be set aside of deposit balance (i.e., required reserves). As central banks moved away from directly handling the assets of individuals, a link is necessarily forged between the general public, the banks which now act as the repository of the public's saving and the central bank in between these two stakeholders. As warranted, the central bank may extend funding to these banks (i.e., lender of last resort) to smoothen temporary gaps.

This would not be the venue to describe the history of central banking in its full glory. It suffices to put forward that central banks may have emanated from the interest of the state to create and manage funding but this has essentially evolved into the more comprehensive (and necessarily, more complex) task of ***managing liquidity***.

Liquidity is directly quantifiable but in practice it is the presence or absence of overall liquidity which is instead measured. This is phrased within the context of managing inflation and the operational mantra is that of "price stability." In the United States (US), the 1977 amendment to the Federal Reserve Act categorically states that the two goals of monetary policy are to pursue maximum sustainable growth and employment as well as to promote stable prices.[5] For the European System of Central Banks, price stability is the primordial concern

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5. Section 2A of the Federal Reserve Act states:
   The Board of Governors of the Federal Reserve System and the Federal Open Market Committee shall maintain long run growth of the monetary and credit aggregates commensurate with the economy's long run potential to increase production, so as to promote effectively the goals of maximum employment, stable prices and moderate long-term interest rates.

and support for economic policies cannot be to the prejudice of the objective of price stability.[6]

This certainly invites the obvious question of whether or not a price stability framework is enough for purposes of economic policy and management. Many commentators have raised concerns that it may not, some of whom making their case well before the protracted global crisis. White (2006) has argued that much more flexibility is required than the tools offered by the traditional price stability framework. Blinder (1999) – the former Vice Chairman of the US Federal Reserve System and long-time Princeton University professor – is much more direct when he states that:

> *"… central banks generally control only the overnight interest rate, an interest rate that is relevant to virtually no economically inter-esting transactions. Monetary policy has important macroeconomic effects only to the extent that it moves financial market prices that really matter - like long-term interest rates, stock market values and exchange rates."*

And in a more recent Bank for International Settlements (BIS) paper, Goodhart (2010) points out that:

> *". . . the traditional focus of stabilisation has been the central bank's capacity to lend, and thus to create liquidity, either to an individual bank, as the lender of last resort, or to the market as a whole, via open market operations . . .*
>
> *. . . The standard regime was one in which the central bank was delegated operational independence to vary the official short-term interest rate in order to achieve an inflation target, which in turn was mandated either in general or in specific numerical terms by the democratically elected government. We now recognise that the achievement of price stability by this procedure does not guarantee financial stability."*

The last sentence from the quote above is particularly revealing in several respects.

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6. See "The Monetary Policy at the ECB," 2nd Edition, January 2004 and the 3rd edition, June 2011.

First, it makes evident that the new norm for prudential regulation is that of financial stability. The global financial crisis has shown that risks can quickly become systemic and materialize cross-border. Given the obvious costs of instability, we would have to be cognizant of the build-up of systemic risks in addition to the oversight of stand-alone risks. This fundamentally changes the way regulators approach financial markets.

Second, central banks have a critical, if not leading, role to play in the financial stability framework. Although there is no singular definition for financial stability and there are various arrangements across jurisdictions for central banks, the BIS (2011) notes that central banks are necessary players because of their ability to provide liquidity. While controlling system-wide liquidity has long been a central bank tenet, the link between liquidity and systemic risk is a new paradigm that is being managed under a financial stability objective.[7]

Third, the above policy objectives are being pursued irrespective of whether the financial stability agenda officially rests with the central bank or not. In the US and the eurozone, financial stability is in fact a mandate bestowed on institutions separate from the Federal Reserve and the European Central Bank. They reside, respectively with the Financial Stability Oversight Council (FSOC) in the US and with the European Systemic Risk Board (ESRB) in the eurozone. In contrast to the FSOC and the ESRB, however, the financial stability agenda is undertaken, whether formally and informally, within the respective central banks of the ASEAN-5. Clearly then, no single working structure is warranted but ensuring that working relationships are coordinated is more critical.

2. Moving Forward on the Financial Stability Agenda

The way forward for prudential oversight appears to be a decided issue with respect to financial stability. The difficulty, nonetheless, is that the financial stability agenda is phrased in abstract terms without the benefit of specific policy objectives, concrete policy tools, particular measures or best practice guidelines. We have always understood that risks are inherent to financial markets and raising the bar to address so-called macro-prudential concerns begs the question of what has really changed in financial markets to warrant the "new" focus. Is it a question of history tragically conspiring so that well-understood risks have

7. Even the revised Basel Accord now puts heavy emphasis on liquidity risks. Apart from capital adequacy, the best practice standards now call for both the LCR (short-term liquidity) and the Net Stable Funding Ratio (longer-term liquidity).

converged into a bigger risk or are we now looking at "newer" risks that have not really been well considered in the past?

The objective analysts will argue that there is evidence for both conditions. What is not in dispute, however, is that there are costs from financial ***in***stability. Unfortunately, knowing the extent and consequences of instability does not tell us more about how we are going to move forward with stability. Among others, we are not clear how we are going to measure system risk, how known risks comingle into yet-unknown systemic risks, what behaviours mitigate or magnify system risks, and how different jurisdictions should coordinate for possible cross-border risks.

2.1 The Evolving Organisational Structure of Central Banking

All of these questions are critical because the answers affect the way we organise and structure central banking moving forward. The traditional three pillar approach – monetary policy, banking supervision, and payments and settlements system – has been descriptive of the related operating threads but it has also institutionalised some degree of specialisation for each of the pillars. Rather than a natural chain of connected activities, interactions between the pillars often transpire as issues relevant to the banking public arise.[8]

Under a financial stability agenda, the higher-order policy objective is the control and monitoring of systemic risks.[9] This is not to suggest that the respective pillars have lost their policy relevance. However, the policy issues of each pillar can be left to the existing realm of micro-prudential regulation while the risks that arise from the interconnectedness of the three pillars should be the focus of macro-prudential policy. This approach reiterates the importance of each pillar but it also makes the point that will be central to our view of central banking under a financial stability agenda: micro-prudential issues may very well cause systemic dislocations but these are not the focus of the financial stability agenda.

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8. Specifically, the public is serviced by banks (banking supervision pillar) and directly get affected by the real economy as may be stimulated by the monetary policy pillar. In the meantime, this public relies on the payments and settlements pillar for fundamental infrastructure services.

9. Formally, there should be a realization of the difference between systematic risks (in the context of capital asset pricing modelling, for example) and systemic risks (upon which the entire concept of financial stability rests). The former has an established literature and is therefore well understood and well modelled. Yet it is the uncertainty of the latter, defined by Hansen (2012) as "breakdowns of financial markets," which will define the changes to central banking moving forward.

The interconnectedness that is central to financial stability is not just another way to re-package existing arrangements. In lieu of interacting as needed, we envision a continuous concern for liquidity (for savers and investors), both in amount and in having the needed access points, and for which operating parallel is the cost of leverage (for those raising cash or capital). This proposed framework is very much bank-centric because it is through banks that funding liquidity is made available throughout the system and leverage made possible.

We can represent this change schematically. We can delineate a functional difference between the top-down focus afforded by each pillar in Figure 1 against the more integrated structure represented under Figure 2.

Figure 1

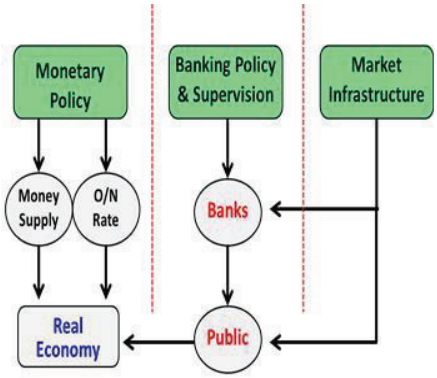
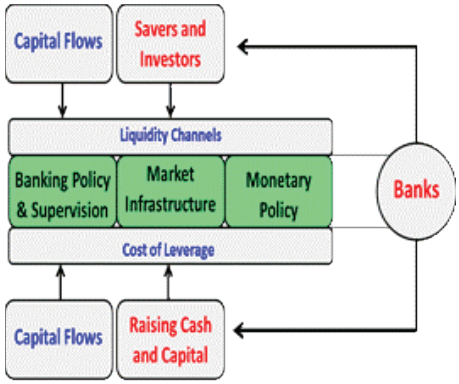


Figure 2



However, it should be evident that the exercise goes well beyond schematics and functional distinctions. Underlying this is a change in operating parameters. From related-but-nonetheless-specialised operations, we are shifting towards a holistic-and-functionally-non-separable view of the prudential issues. This requires a substantive modification of what is practiced today. In particular, a harmonised prudential framework is necessary to be able to generate collective thinking.[10] It also means that a holistic toolkit is warranted, not only to provide for a focused intervention as desired but also to minimise any unintended consequences across the traditional pillars.[11] Each of this is a significant challenge.

2.2 Changing the Way We Manage Information and Risk

This changing structure has direct impact on the way central banks handle information as a means of identifying, measuring, monitoring, and mitigating financial risks.

Regardless of the structure of a central bank – whether it is mandated to limit itself to monetary aggregates or is also vested with the supervision of banks – the primary unit generating the data will be banks.[12] Given the speed at which financial market turnover transactions and the greater speed through which change is coursed through bank financial positions, it is fair to ask whether central banks have enough information at their disposal to make timely analysis and respond accordingly.

At issue is what information is made available by bank balance sheets and the periodicity of such information. As a fundamental accounting structure, a balance sheet is a static view as of a cut-off date. It provides the magnitude

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10. There may be natural conflicts across the pillars simply because of the nature of financial markets. For example, monetary policy needs may require a lowering of benchmark rates to stimulate the real economy. This may benefit borrowers but will be a major disincentive for savers. In the absence of sourced funds, there will not be new unencumbered funds available for lending which will itself stifle the real economy. Similarly, efficiencies in the payments system may be possible by shifting to electronic clearing and settlement. However, depending on the socio-economic profile of an economy, electronic platforms may cover less of the market. This exposes the retail market to operational risks which can affect the way the banks decide on their market reach and conduct their business.
11. As pointed out by the BIS Central Bank Governance Forum (CBGF) Report (2011), tools specifically designed for financial stability purposes (instead of existing micro-prudential tools whose use are extended to cover financial stability) have not been identified.
12. In the former, this is done through the reserve requirement/money multiplier route. In the case of the latter, it is more directly through the safety and soundness dictum.

of different accounts but the information is still largely historical in nature. This creates two distinct problems.

First, risks are about what may unexpectedly transpire in the future. History may provide some clues but financial markets are not prone to regular well-defined cycles that mirror the past into the future. This is certainly problematic because financial institutions with strong balance sheets are therefore not immune to future balance sheet weaknesses that can lead to liquidation. Regulators need balance sheets to monitor a bank's situation but they cannot be readily used to foretell the future i.e., *balance sheets are necessary but insufficient monitoring tools as far as risk build up is concerned*.

Second, the holistic requirements of financial stability only highlights the fact that the traditional problem of ***information asymmetry*** between regulator and regulated is actually much more acute. It is not that balance sheets are submitted to regulators with a lag. Rather, it is the fact that *balance sheets report outstanding balances of accounts but neither the transactions underlying the accounts nor the relationships between the transactions*. The implication of this distinction is quite far-ranging.

A smaller bank, for example, with a relatively limited deposit base can still pose a systemic risk if it is active in the swap and interbank funding markets as a way to finance potentially aggressive position-taking in the fixed income market. Alternatively, near zero end-of-period balances, for example, in a derivative does not preclude the possibility that such a bank was actively arbitraging buy and sell positions throughout the period.

The point of these two examples is that regulators have a vested financial stability interest to understand either how banks fund a position (instead of just knowing the position balance) or how these banks operate in the market. This is not meant to micro-manage banks. However, an appreciation of these details will provide additional critical insights as to the risks taken by banks and the potential channels through which these risks may be passed on to other stakeholders.

Since financial markets are inherently risky, then the objective cannot be to avoid risks altogether. There are financial risks worth taking and an appreciation of the above additional information takes us closer to understanding how to achieve stability. In the process, the market needs to fully price in all of these risks since this is at the heart of the risk-return trade-off.

2.3 Managing the Gamut of Change

Notwithstanding the above challenges with financial stability, the pressure on central banks is exacerbated by the fact that the international landscape is changing as a result of the reforms.

In a way, not only are central banks chasing the shadow of future stability, they are also running from the ghosts of past instability. The ghosts that have come to haunt are in the form of reforms on several fronts. One hears of major facets such as governance and accounting standards in the same breath as the Basel Accord, consumer protection, shadow banking, financial market infrastructure, OTC derivatives, and conglomerates oversight. Even the term "Basel Accord" is actually a euphemism for significant structural change since the new guidelines cover far-ranging initiatives on bank capital, liquidity, trading books, leverage, systemically important institutions, and counterparty risk.

These are not small patches to existing guidelines. To the contrary, there is considerable depth in each of these reforms. As such, these collectively represent a fundamental rewrite of the global standards.

It is evident that each of these reforms will affect the way banks operate. Unfortunately for central banks, not all of these initiatives are under either their direct or sole jurisdiction. Since some of the envisioned changes extend beyond traditional banking concerns, a fair amount of coordination across regulatory and/or government agencies may be required. This is another facet of the financial stability challenge since the sphere of central banking is inherently driven and delimited by "mandates" defined by law.

In the end, these changes need to be managed. Banks function within an atmosphere of relative regularity in operations and one cannot simply assume that banks will execute the reforms as a matter of due course. There will be resistance to these reforms since the aura of regularity will be disturbed by changes that could very well adversely affect the banks' bottom line. For this reason, the task of managing the necessary changes will have to fall upon the central bank. There is urgency to the identified changes but it cannot be institutionalised at a pace that is inconsistent with the ability of banks to effectively manage change: set too slow, the system is vulnerable to further instability; set too fast, the system still remains vulnerable since the desired changes may not have taken hold at all.

2.4 What is Systemic Risk?

Coordination between the banks and the central bank will be critical but it will ultimately be a question of what is deemed "prudent" within a domestic context. International standards set the baseline but it is upon local authorities to recognise idiosyncratic features in their jurisdiction. This brings us back to the issue of risk.

What risks can be identified, measured, monitored, and mitigated will certainly play a key role in handling the financial stability agenda. But all of this begs the two most obvious questions:

a) What exactly is systemic risk?

b) How do we measure, monitor and mitigate systemic risk?

This is not a trivial matter because it defines the object of the pursuit under a mandate of financial stability. As pointed out in the BIS CBGF Report (2011), however, there is no universally-accepted definition of financial stability.[13] Operationally, it would not be sufficient to define stability as the absence of instability since the latter itself can take very different forms over time and across locations.[14]

For central banks that take on the stability mandate, this state of affairs invariably tilts the responsibility of execution from global standards to domestic requirements. The academic literature is not exactly silent but the fact that Bisias et al. (2012) are able to identify 31 existing measures of systemic risk under six major policy categories only highlights that instability can mean differently to different stakeholders with different objectives.

To move their own financial stability agenda forward, each central bank will therefore need to put in place their own measure of systemic risk that subsequently defines their own view of stability. This sounds more *ad hoc* than universal; quite frankly, it is and this is why the burden of execution is indeed more with domestic authorities than with global bodies that set the international standards.

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13. One can also readily validate that different jurisdictions define financial stability differently, not to mention the different institutional arrangements that are in place to execute such a policy objective.

14. Schinasi (2004) argues that financial stability in fact is not a static concept.

Nonetheless, we can step back from specific models and raise more generic issues regarding systemic risk. We are well aware of the nomenclature of financial risks that emanate from specific transactions and/or exposures and such knowledge was not enough to prevent the build-up and eventual blow up of systemic risks. If we are to move ahead on the agenda of financial stability, one needs to ask how transaction-level risks relate to system-wide risks. Specifically, some specific questions that may be asked include:

a) Are there risks that are acceptable at the level of transactions, products and agents but would not be acceptable once aggregated at the systemic level?

b) Is risk always developed from the bottom up (i.e., from micro-prudential to macro-prudential)?

c) How do we know about the nature and extent of interconnectedness across transactions, products and agents that often define the "systemic-ness" of risks?

d) Are risk relationships stable over time?

e) How do we determine the "channels of risk"?

f) Is there the need to distinguish between systematic risk and systemic risk?[15]

The answers to these questions help us understand what we are trying to measure (financial stability) and how we will do so (systemic/systematic risk). Based on what is currently available, only two options are possible:

1) Use existing microprudential and macroeconomic measures and re-interpret them from a system-wide standpoint;

2) Find new exclusive measures for system-wide risk in the context of financial stability.

The second item is not presently possible and thus by default we are restricted to the first. It should be noted categorically that although the global norms are being rewritten and recast, one should also not expect a wholesale repudiation

15. The former arises out of the portfolio theory literature. It is the risk that arises from the structure of the market, faced by all agents and cannot be eliminated through portfolio diversification.

of longstanding standards for banking supervision, payment systems or even monetary policy. The point is that the chosen technical specification for systemic risk is important but we also cannot get ahead of ourselves by forgetting the needed working arrangements that take us to the next step.

For this reason, it is important to distinguish the boundaries between the new macro-prudential oversight and the old standards. This cannot be a matter of semantics or left to broad statements of commitments across stakeholders. There needs to be some specificity because understanding these boundaries allow us to execute the coordination that is now required under the more holistic framework.

On this point, it is in my view relevant to revert to portfolio theory. We know from established principles that portfolio risk for any two assets *i* and *j* can be specified as:

$$\sigma_p^2 = \omega_i^2\sigma_i^2 + \omega_j^2\sigma_j^2 + 2\omega_i\sigma_i\rho_{ij}\omega_j\sigma_j$$

where σ_i^2 is the volatility of asset i, ω_i is the proportion of the portfolio allocated to asset i, and ρ_{ij} is the correlation coefficient between asset i and asset j.

This simple exposition generates a few points that should be highlighted.

1. The first two terms $\omega_i^2\sigma_i^2 + \omega_j^2\sigma_j^2$ effectively represent the stand-alone risks from assets i and j respectively, showing that systemic risk can emanate from risks generated from the comingling of separate asset risks, i,e., $\omega_i\sigma_i\rho_{ij}\omega_j\sigma_j$.
2. The mechanics of the same first two terms are known but these may change in a changing market environment.
3. The mechanics of the comingled risk, $\omega_i\sigma_i\rho_{ij}\omega_j\sigma_j$, are *a priori* unknown but they can be tested on a pairwise basis.
4. This representation of systemic risk does not make reference to the valuation/pricing of risk. It therefore also does not distinguish between undiversifiable and diversifiable risks.

The first point reminds that micro-prudential risks can create systemic risks. This suggests that the existing micro-prudential oversight arrangements cannot be simply set aside under a financial stability agenda. That is, micro regulators still have a distinct role to play in the oversight of systemic risk but would need to distinguish, at least conceptually, between risks that are squarely upon their mandate (i.e., $\omega_i^2\sigma_i^2$ for any asset *i*) and those that they contribute to (i.e., $\omega_i\sigma_i\rho_{ij}\omega_j\sigma_j$).

Conversely, one can also use the first point to think of how working arrangements may be structured. Specifically, micro risks remain with the micro-prudential supervisor while the comingled risks become the area of macro-prudential supervision. The working focus of the latter can be on the nature of interconnectedness or the channels through which risks are spilled over into the system, both of which are subsumed under the parameter ρ_{ij}. Unless there is some other alternative specification, ρ_{ij} is a pairwise relationship and the effort on interconnectedness and channels of risk must be done for all asset pairs i and j.

The second and third points highlight the extent of what we know and do not know. If what we know is neither absolute nor stable, then continuous monitoring and empiricism would be required to keep track of evolving patterns between assets. This has a direct bearing on the resources that will be called upon under a stability mandate. As suggested above, measuring and monitoring ρ_{ij} for all asset pairs i and j will not be a trivial exercise. For a central bank to undertake this responsibility, there is an extra layer of challenge since monitoring asset patterns and behaviour is presently not one of its core competencies.

The fourth point raises an issue that has only been peripherally discussed in most forums. Since financial markets are always about risk and regulators consistently talk of prudential choices in risk exposures, then we need to be conscious of:

a) The pricing of risk and mitigating genuinely unexpected outcomes; and

b) Not rewarding stakeholders for taking on "imprudent" risks.

For these two issues, one needs to invoke the distinction between systematic and systemic risk, discuss asset pricing principles and modelling while correlating idiosyncratic risks, bank governance and risk pricing. These are clearly fundamental concerns which deserve a separate discussion. Suffice it to say at this point that, if pursued to their logical conclusion, this is altogether a new area for any central bank to undertake.

3. Final Thoughts

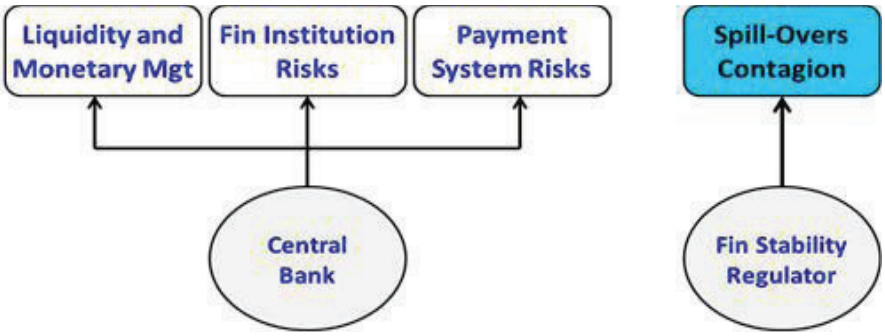
There is no doubt that financial stability has become the primordial prudential concern of authorities. It is not necessarily that financial markets are riskier today since the same products and the same transactions appear to be undertaken in the market. There is, however, a clear shift in prudential outlook which is

more concerned with system-wide dislocations, takes on a top-down view of risks while being more prescriptive of the prudential stance on risk-mitigation.

Central banks are argued to be natural stakeholders under the new financial stability mandate because of the management of liquidity. For jurisdictions which are more bank-oriented, there is a stronger basis for central banks taking on the financial stability mandate because the channels of contagion innately go through banks.

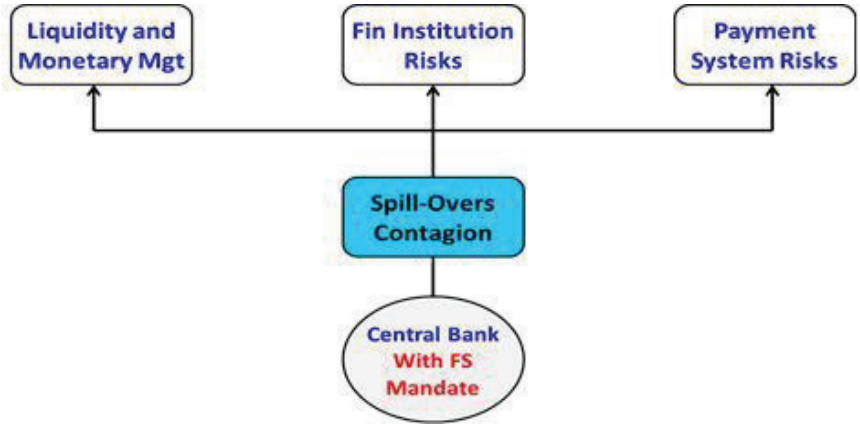
Financial stability, however, is a game changer in many respects. Regardless of the working arrangement in the jurisdiction, the central bank does not simply wear "an added hat" to undertake financial stability. If a central bank operates under the traditional three pillars approach, can a separate agency be delegated with the spill-over/contagion risks (figure 3)?

Figure 3



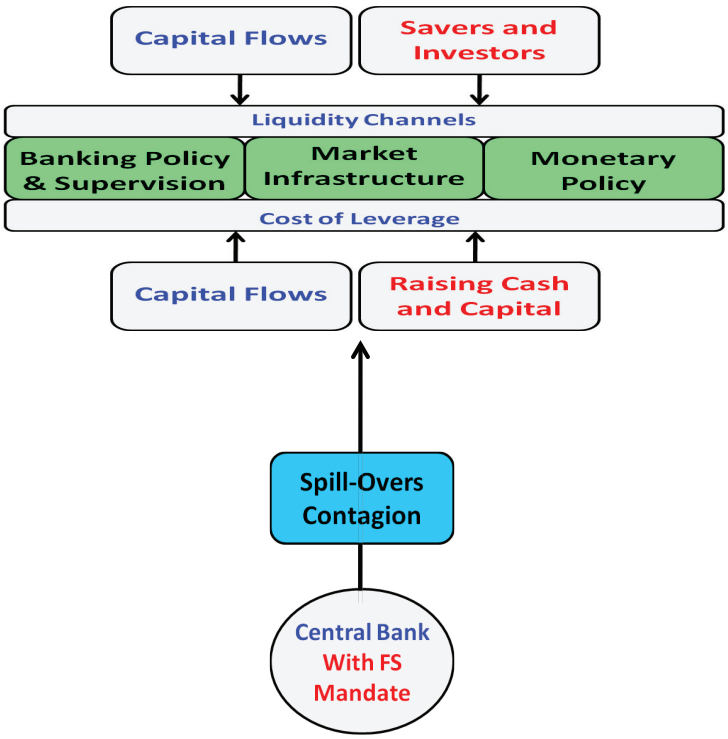
Or will the central bank at least play a major role in the pursuit of financial stability regulator since those spill-overs can come through any of the three pillars (Figure 4).

Figure 4



The challenge does not end here. In pursuing financial stability, we previously argued that the three pillars approach will have to be adjusted as well. Following our earlier schematic, the net effect would then be along the lines in Figure 5:

Figure 5



As noted in the paper, the implications of such a shift in operating structure are intensive. From an information standpoint, the most immediate effect is that central banks with financial stability mandates cannot afford to rely on traditional sources. There will have to be greater granularity in bank balance sheets and highlighting the relationships between accounts. It will likewise require information from non-bank entities to account for the potential channels of risk. This last point is going to be contentious.

Finally, central banks cannot overlook the manpower requirements of a stability mandate. It is not a simple issue of adding more people to do more. Instead, it is a change in the core competencies. We certainly will require the expertise of a macro-financial economist, the preciseness of a financial engineer, the orderliness of an accountant, the eloquence of a commentator, the imagination of a physicist, the structure of the legal mind and the perspective of a market practitioner.

Many of these competencies are available in most central banks so that the real challenge is integrating them into a holistic mindset and finding ways to acquire the skill sets of those not yet available. Just as financial stability will impact banks significantly, the consequences on central banks are equally non-trivial. It bears repeating what has been stated above: not only are central banks chasing the shadow of future stability, they are also running from the ghosts of past instability. In the meantime that the uncertainties of financial stability are being clarified, there is the certainty of ongoing reforms. Lest we forget, this too needs to be carefully managed so that the short-term costs of reform cannot outweigh the long-term gains from the changes.

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SESSION 7: PANEL DISCUSSION

THE ROLE OF CENTRAL BANK IN NEW SUSTAINABLE GROWTH MODEL: BANK INDONESIA'S PERSPECTIVES [1]

By
Dr. Solikin M. Juhro[2]

1. Sustainable Growth Model and the Role of Central Bank

Prior to the global financial crisis of 2008/09 the global development policy strategy was been dominated by the paradigm of export-led growth. That paradigm became part of a consensus among economists about the benefits of economic openness. The global financial crisis of 2008/09 and the accompanying deep recession have created an overarching structural condition of global demand shortage. Since then, there has been a growing call for a revival of the subdued role of the central bank in promoting sustainable economic growth. The rationales behind that phenomenon seem understandable given a number of factors. *First*, learning from the economic crises that have taken place over the last two decades, the basic conception that crises appear to have major underlying causes located in the real economy has been revealed, and that crises were not just the result of changes in financial behavior. Therefore, the scope of the central bank's policies should be better integrated with other macroeconomic policies to strengthen real sector development. *Second*, the roots of economic problems are now recognised to be more complex and complicated. In this regard, the central bank as the monetary authority tasked with the conventional responsibility for monetary management must in the future also pay attention to a strategic role as the agent of economic development.

A number of prominent recalibration of thoughts has facilitated a new paradigm of domestic demand-led growth. Palley (2011), for instance, certainly acknowledges that in order to grasp the benefits of economic development, developing countries need to export. However, it is argued that the global trading system must be made the servant of domestic development, and domestic

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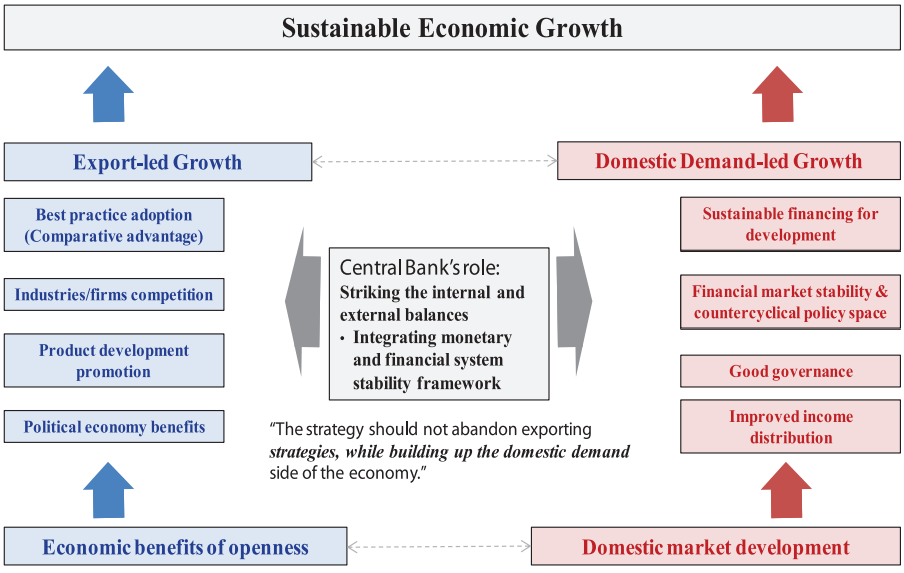
1. Presented at the *SEACEN-CeMCoA/BOJ High-level Seminar on "Finding Asia's New Sustainable Growth Model Post GFC: The Role of Central Banks",* Kuala Lumpur, 7 November 2012.

2. The author is Deputy Director, Economic Research and Monetary Policy Department at Bank Indonesia. The Author is grateful for considerable information support from Dyah Maharani Irmasari of Bank Indonesia.

development must not be forgone for the sake of international competitive advantage. In this regard, domestic demand growth should rest on four pillars, namely: (i) improved income distribution, (ii) good governance, (iii) financial stability, and (iv) a fairly priced supply of development finance. And the policies needed to put these pillars in place are (i) labour and democratic rights; (ii) financial reform; and (iii) a combination of debt relief, increased foreign aid, and increased development assistance through the expansion of multilateral financing.

What is the role of the central bank? Based on emerging market countries' experiences, it is believed that most countries could not differentiate clearly where the sources of economic growth should come from. But empirical evidence in some Asian countries also shows that successful and sustained growth requires growth in both domestic demand and net exports (Felipe and Lim, 2005). In conjunction with these salient facts, we are led to believe that the development strategy should not abandon exporting strategies, even while building up the domestic demand side of the economy. In this regard, the policy configuration needs to strike the proper balance in internal and external growth impulses. From the central bank's policy perspectives, this can be done by integrating the monetary and financial system stability framework.

Diagram 1 Policy Challenges and Key Strategies

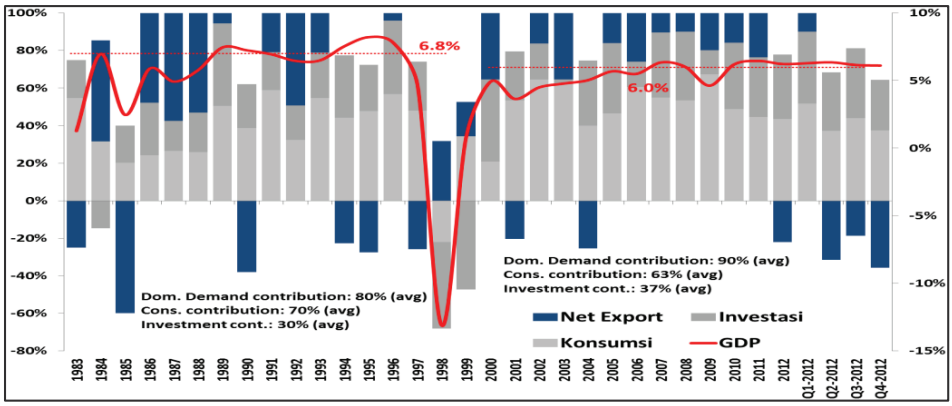


This paper is aimed to address the role of central bank in a new sustainable growth model. From Bank Indonesia's perspective, it focuses mainly on the relevance of bank Indonesia policy strategy to rebalance the sources of economic growth in order to maintain sustainability of economic development in the medium-long term. The following section presents the current state of the Indonesian economy, including the recent strong performance amid global uncertainties and the underlying key policy responses pursued. Section 3 elaborates on some policy challenges and key strategies to maintain sustainable economic growth. Section 4 provides Bank Indonesia's policy framework under a sustainable growth model, which integrate monetary stability and financial system stability framework. The last section concludes this paper.

2. Current State of Indonesian Economy

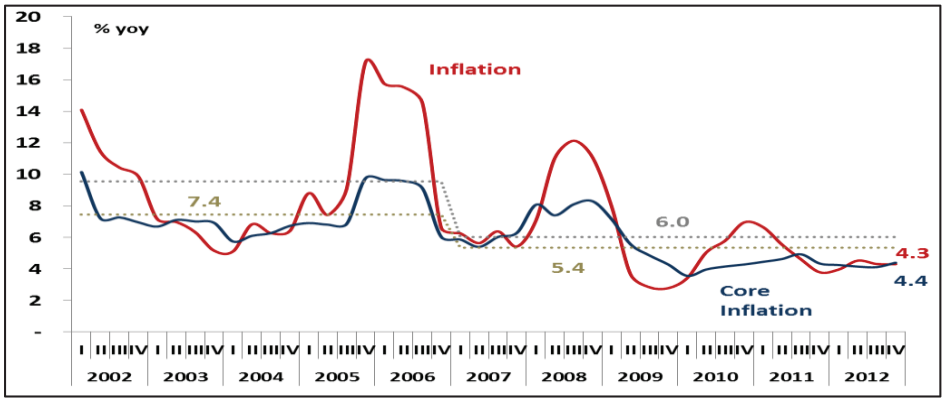
The Indonesian economy continues to demonstrate considerable resilience despite the fragile condition of the global economy. Indonesian economic growth remains strong, posted an average increase of 6.0% in the last-5-years, showing resilience amidst sharp fall in export as a result of pressures from the global economic slowdown. The leading source of Indonesian economic growth has been its strong domestic growth with a rising contribution from average of 80% in the pre-1997/98 Asian Crisis period to 90% post-crisis. While strong private consumption is the major impetus of domestic demand growth, investment is also taking on a more substantial role in economic growth. The continued strength of private consumption reflects rising consumer confidence and steady levels of public purchasing power. Alongside this, key factors in the buoyant investment growth are the expansion in private consumption and the conducive investment climate.

Figure 1
Sources of Growth: Contribution of Net-Export and Domestic Demand



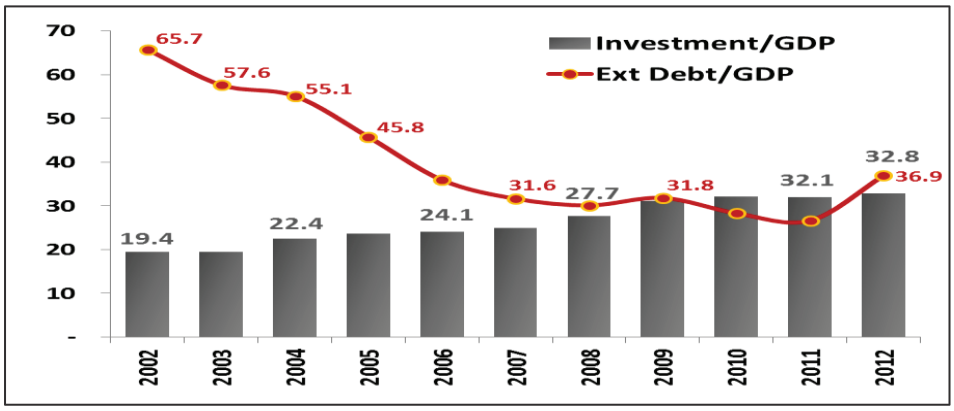
Despite the robust economic growth, Indonesia experienced a relatively low and stable inflation. Moreover, Indonesia appears to be exhibiting an era of structurally lower inflation. Inflation declined to single digits, along with improving policy credibility under the Inflation Targeting Framework (ITF). This was evidently reflected in the declining trend of core inflation notably from an average of 7.4% in 2002 – 2006 to 5.4% in the following years to the present. In analysing the fundamentals, the contributing factors to this downward trend include the expectations of inflation which were kept at a subdued level and adequate supply side capacity responding to demand. This showed that the moderation in inflation has been structural in nature as the potential growth has risen and the output gap is still negative, given rising investment to GDP.

Figure 2
Inflation and Core Inflation



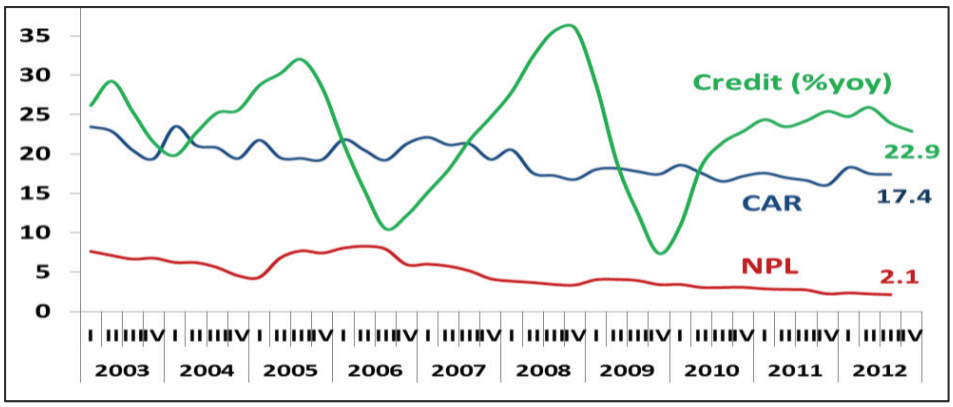
Structural reforms have been fruitful, which are reflected in the improving business climate and rising investment, while consistent fiscal discipline has led to a downward trend of external debt. The buoyant performance in investment is supported by sustained business optimism in a conducive business climate. With the declining macro risks and the proven financial stability, the saving-investment dynamic has become more robust and contributed to strengthening the structural foundation of the economy. Investors began to feel more confident in developing their production capacity. This is reflected in the steady rise of the investment to GDP ratio from around 19% in 2002 to 33% recently.

Figure 3
Investment and External Debt
(percent of GDP)



On the banking side, consolidation has led to stronger capital levels and lower risk in the banking sector, contributing positively to the growth momentum in lending activities, especially in the productive sectors. Certainly, the robust economic growth has been made possible because of substantial financing from the financial sector, particularly from domestic banks which have remain relatively healthy. The banking sector in Indonesia has been resilient in the face of the recent global financial crisis. The key is that the banking sector continued to rely mostly on relatively non-complex transactions. Moreover, the financial transactions were linked by and large to real economic activities, with less involvement in financial derivatives and other sophisticated schemes. Hence banks' risks were more manageable. The capital adequacy ratio (CAR) was well above the minimum level of 8% and gross non-performing loans (NPL) were kept below 5% through June 2012. Strong lending growth has also been followed by the improvement in loan composition. The credit expansion has been channeled mainly to the productive sectors in the form of investment loans (29% increase) and working capital loans (26%), which represented a combined around 70% share of total credit. Overall loan growth is expected to be at a comfortable level of 23% for 2012.

Figure 4
Banking Sector CAR and NPL
(percent)

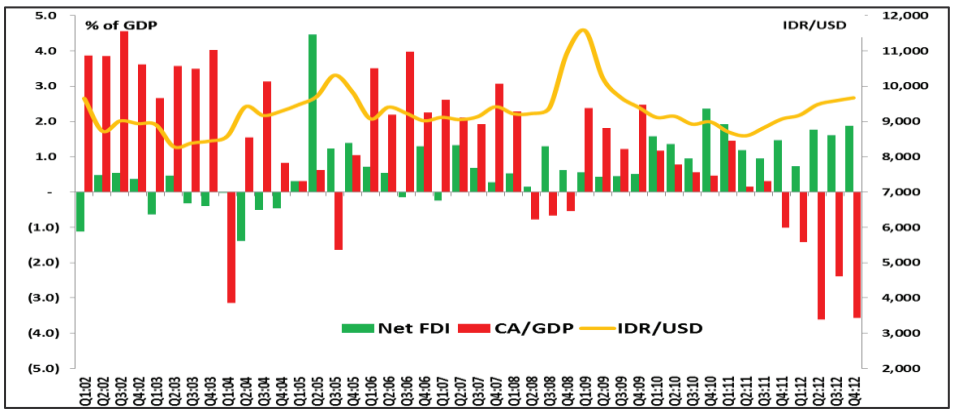


Moderating global demand, reflected in slowing export growth, paired with rebalancing the source of growth toward domestic demand has led to a widening current account (CA) deficit. Direct impact from the Euro-crisis would be limited since the share of Indonesian export to the Euro-Area is less than 20%.

Similarly, the direct impact through the banking sector would be limited. But, the indirect negative impact through the China and other Asian trade channels would be significant, since China is the major destination of Indonesian exports. Indonesia's exports to China are largely for domestic consumption and investment.

Since the last quarter of 2011, the CA balance has recorded a deficit, from decreasing export growth amid considerably strong import growth driven by higher investment rather than consumption. The flagging economies of major trading partners, such as Europe, China, Japan and India, may potentially hamper the rate of recovery in export growth. However, some recovery in exports together with the slowing pace of domestic economic activity has led to some improvement in Indonesia's external sector in Q3/2012. The CA deficit eased as imports fell at a much faster pace than exports. On the other hand, the capital and financial accounts posted a surplus on higher capital inflows, largely due to stronger foreign direct investment (FDI), spurred by a resilient domestic economy and a buoyant investment climate. The surge in capital inflows reflected positive sentiments from the global investors and the solid outlook for domestic economic prospects.

Figure 5
Current Account Balance
(% of GDP)



In addition to strong FDI flows, rising portfolio investments were part of foreign capital inflows, particularly in rupiah denominated instruments. The heightened global economic uncertainty influenced the Indonesian economy through the financial channel taking the form of capital flow movements as reflected by the large share of foreign ownership of Indonesian financial instruments (bonds, stocks). Capital flows have been volatile since mid-2011, resulting from a combination of contagion effects from global financial market turbulence and the shallow domestic financial market digesting the large surge in foreign demand with difficulty. This situation has exposed Indonesia to the potential risks of sudden reversals in investor sentiments. Moreover, the capital flows have also contributed to pressures on the exchange rate. The Rupiah has been under pressure since Q3/2011 although with lessening intensity. It has depreciated by 5.91% from Rp9.068/USD (end of 2011) to Rp9.638/USD (end of 2012).

The weakening of Rupiah was mainly contributed by two factors: (i) the internal factor, triggered by sustained high demand for foreign currency to pay for imports and the heightened global financial market uncertainty which lowered investor risk appetite and increased Rupiah depreciation expectation; and (ii) the external factor, stemming from the lack of solid global economic recovery, the deepening impact of the crisis in Europe on the its macroeconomic outlook, the still fragile state of recovery in the US economy, and the slowdown in China's economic growth.

Nevertheless, Indonesia today is in a much better shape compared to the 1997/98 Asian crisis. This may be attributed to two factors, namely (i) a flexible exchange rate and adequate reserves to provide a cushion against external shocks while facilitating adjustment to sustained external inflows; and (ii) sufficient monetary and fiscal policy space to respond to shocks. Until the end of 2012, international reserves remain at a comfortably safe level and reached USD 112.8 billion, equivalent to 6.1 months of imports and debt servicing obligations.

Monetary conditions remain supportive of growth. While pursuing an accommodative stance, similar to other central banks in the region, the BI rate has been maintained at 5.75% in the last 12 month. Although this is historically the lowest rate, it is relatively high when compared to those of other central banks in the region. On the fiscal front, with low external debt and low budget deficit, there was sufficient room to provide ample stimulus to growth here needed. The budget continued to record a relatively low deficit (less than 2% over GDP) and with a declining external debt ratio from around 66% of GDP in 2002 to 27% recently.

Wide-ranging fundamental structural reforms since the 1997/1998 crisis have permitted vigorous economic progress and left Indonesia on a stronger footing to absorb the risk of external shocks, including the global financial crisis in 2008-2009. Similarly, Indonesia is well positioned to weather any downward spiral from the sovereign debt crisis that is currently threatening Europe.

The most important structural reform initiatives implemented by Indonesia are briefly described here. *First*, the restructuring of the nonperforming loans of Indonesian banks that began a decade or so ago, has produced much healthier financial sector balance sheets. This is reflected in sustained profitability and good risk management brought about through rigorous supervision. *Second*, Indonesia's vastly improved fiscal positions, both in debt and deficit indicators, have provided Indonesia space to take a strong policy response, when needed. *Third*, the adoption of a transparent and credible monetary policy framework combined with macroprudential policy ensured that macroeconomic and financial stability has been maintained.

3. Policy Challenges and Key Strategies

The 'vicious circle' problem of persistent CA deficit could potentially hamper macroeconomic balance and economic growth sustainability in the medium-long term. Despite the on-going uncertainty in the global economic recovery, the domestic economic growth in 2013 and beyond should stay robust. The return of higher world economic growth will bolster external demand with the effect of strengthening exports. In addition, domestic demand is predicted to sustain vigorous expansion through both consumption and investment. However, the problem of the sustainability of the CA deficit remains troublesome and poses a threat to the Indonesian economy. The main concern of the CA deficit is uncertainty about the policies needed to reduce the deficit to a sustainable level, believed to be around 2% of GDP.

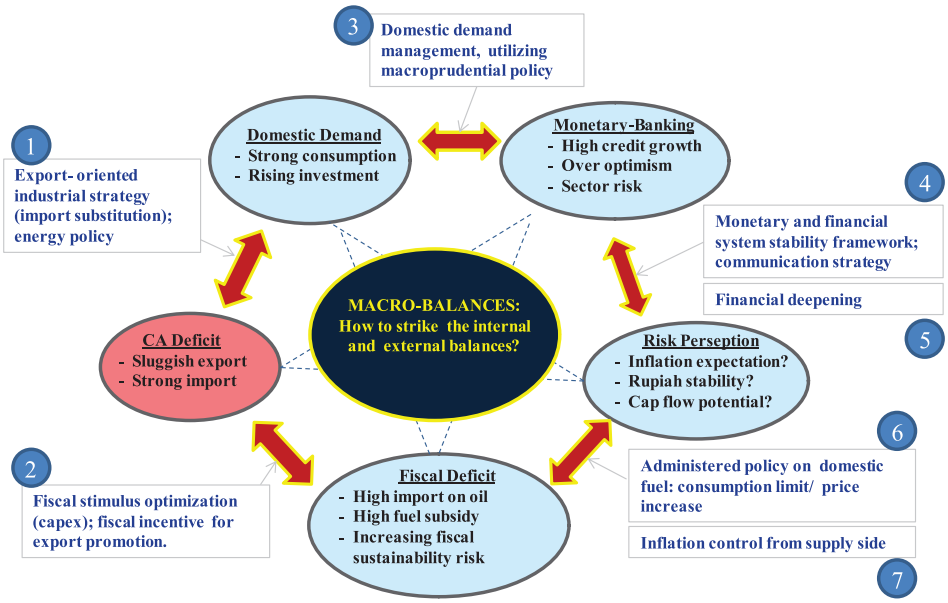
Although the currently larger deficit is believed to be temporary, there are several factors that need to be overcome to allay uncertainty. *First*, the fact that the global economy slowdown is expected to be long lasting. *Second*, oil import is expected to stay at a high level with the forecasted steady rise of domestic consumption of oil-based fuels amid sluggish domestic production. *Third*, the potential worsening of market perception with regard to fiscal sustainability due to higher subsidy pay-outs, especially related to the impact of increased volume in consumption of oil-based fuels, higher average level of actual oil prices and the depreciating trend in the rupiah against the US dollar. *Fourth*, the FDI inflows are mostly domestic market oriented, which in the short term, may trigger

higher imports of needed inputs. However, if such imports are technology and innovation related capital goods they would serve to augment the domestic economy's capacity and growth potential in the future.

Consequently, reliance on external financing such as FDI and portfolio investment would continue to be required. This in turn would give rise to further pressures on the Rupiah exchange rate, in particular during periods of heightened risk aversion. Thus, moderating the CA deficit into a sustainable level would be important. This may require adjustments in the exchange rate as well as in structural policies to address export competitiveness.

The key strategies of maintaining economic growth sustainability need to be directed toward breaking the chains or links of the 'vicious circle'. These links include: *First*, the strong domestic demand, represented by the robust consumption growth rate which has averaged 5% a year and the rising investment growth rate averaging 8.7% a year in the last 5 years. *Second*, on the monetary and banking side, the healthy economic growth has seen correspondingly high credit growth bolstered by the downward trend in real interest rates and buoyant business optimism. *Third*, the sustained high pace of economic growth has amplified potential risk reflected in an increase in inflation expectation, concerns about exchange rate stability, and the volatility in capital flows. *Fourth*, doubts about fiscal sustainability related to the high energy subsidies, from increasing oil imports and the steady rise in domestic consumption of oil-based fuels. *Fifth*, external-internal imbalances resulted from slowing external demand and the rebalancing of source of growth towards domestic demand leading to a widening CA deficit.

Diagram 2
Policy Challenges and Key Strategies



There are several strategies that could be pursued to overcome the above 'vicious circle': (i) An export-oriented industrial strategy (or import substitution) and policies regarding energy; (ii) Fiscal stimulus optimisation to boost the economic capacity via capital expenditure and giving fiscal incentives for export promotion; (iii) Policies related to flexibility on administered price on domestic fuel, i.e. fuel consumption limitation or fuel price increase, and inflation control from the supply side; (iv) Domestic demand management by means of macroprudential policies; and (v) Monetary and financial system stability framework, strengthening communication strategy to anchor public expectation, and accelerating financial deepening.

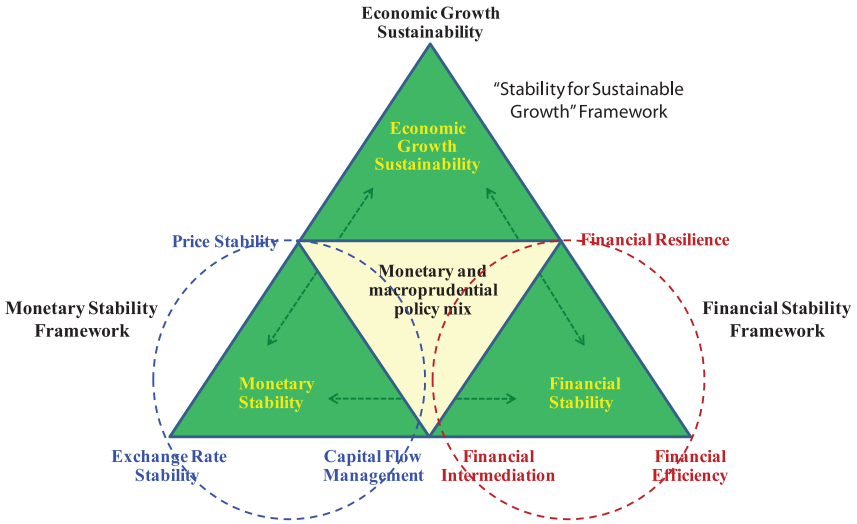
4. Bank Indonesia's Policy Framework under Sustainable Growth Model

Bank Indonesia's Policy Framework is basically directed to integrate the monetary and financial system stability framework. Bank Indonesia's (BI) mission as stipulated in the new BI Law is "*to achieve and maintain price stability through safeguarding monetary stability and financial system stability in order to promote sustainable economic development*"[3]. In accordance with

3. As proposed to the Republic of Indonesia House of Representatives.

this mission, there are three frameworks, namely (i) the monetary stability framework; (ii) the financial stability framework; and (iii) the stability for sustainable growth framework.[4] By integrating the first 2 frameworks, the third can be properly achieved. Monetary and macroprudential policies would be combined and directed to manage the external balance while providing support to the development of the domestic economy.

Diagram 3
Bank Indonesia's Policy Framework



4.1 Monetary Trilemma Management under Monetary Stability Framework

Amid global uncertainty, the primary aim at the current juncture is to strike the right balance between mitigating the downward risk in domestic economic growth arising from the global economic downturn while ensuring stability in the long-term. This will be challenging as the heightened uncertainty about near-term global economic prospect and loose monetary policies as well as unresolved fiscal and banking-sector problems in the developed economies are likely to keep international capital flows volatile in two-way direction. Given this

4. There are ongoing discussions on these issues, including the formulation of Bank Indonesia's future policy framework. For example, see Warjiyo et al. (2012).

background, we believe that our current policy mix strategy will continue to serve us well. Specifically, we will continue to calibrate the policy mix of monetary policy, exchange rates, and macro-prudential policy to address both domestic and global challenges.

Greater domestic economic integration with the global economy, coupled with a deluge of foreign capital flows, has increased the complexity of monetary management. Accordingly, Bank Indonesia is constantly faced with a trilemma, i.e., the impossible trinity, between free capital flows, exchange rate stability and independent monetary policy in the pursuit of price stability. To confront this issue, the choice becomes how to transform the impossible trinity into a possible trinity. The concept of the possible trinity can be expressed as an intermediate solution that avoids volatile swings in the exchange rate, controls excessive short-term capital inflows and reinforces independent monetary policy (Palley, 2009).

In this regard, for the case of Indonesia, the monetary stability framework is focused on managing this policy trilemma, by achieving three intermediate goals, namely: (i) maintaining monetary policy autonomy in achieving price stability by employing a mix of monetary and macroprudential policy (instrument); (ii) stabilising exchange rate movement in line with fundamentals by employing exchange rate management techniques; and (iii) handling capital flow dynamics in supporting macroeconomic stability by implementing capital flow management measures.

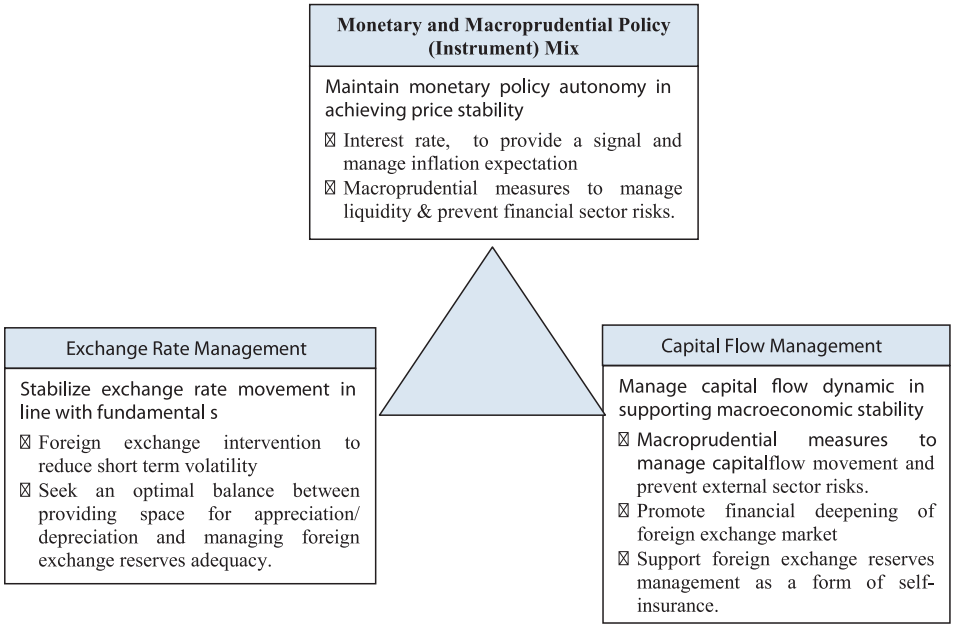
Monetary policy complexity stemming from interest rate changes can partially be resolved by tightening monetary policy through raising reserve requirements. In addition, macroprudential policy seeks to avoid financial risks stemming from asset bubbles and excessive credit growth, which could trigger potential financial system instability. This type of macroprudential policy is effective if capital flows are intermediate through banks. Nevertheless, if the capital flows come through unregulated channels, such as direct loans contracted directly by the private sector, capital control measures are another option to limit private loan inflows.

In terms of the exchange rate, the rupiah should be flexibly managed not only to allow appreciation (or depreciation) but also to avoid misalignment with economic fundamental so as not to endanger macroeconomic stability. Consequently, Bank Indonesia's presence is required in the foreign exchange market to ensure that the rupiah does not deviate unduly and with excessive volatility. Of course, this option is no longer available should the rupiah becomes

overvalued. Simultaneously, efforts to continuously accumulate foreign exchange reserves are vital as a form of self-insurance considering that short-term capital flows are particularly vulnerable to the risk of sudden reversal.

Regarding capital flows, by continuing to adhere to a flexible foreign exchange regime, macroprudential measures could be designed to reduce excessive short-term capital flows thereby lessening the potential financial risks from the external side. Such macroprudential measures have been introduced by Bank Indonesia through regulations that oblige investors to hold SBIs for a minimum period of six months. These measures have helped to diversify foreign portfolio capital flows and extended the duration of SBIs, which has consequently promoted financial deepening, especially in the foreign exchange market.

Diagram 3
Bank Indonesia Monetary Policy Trilemma Management



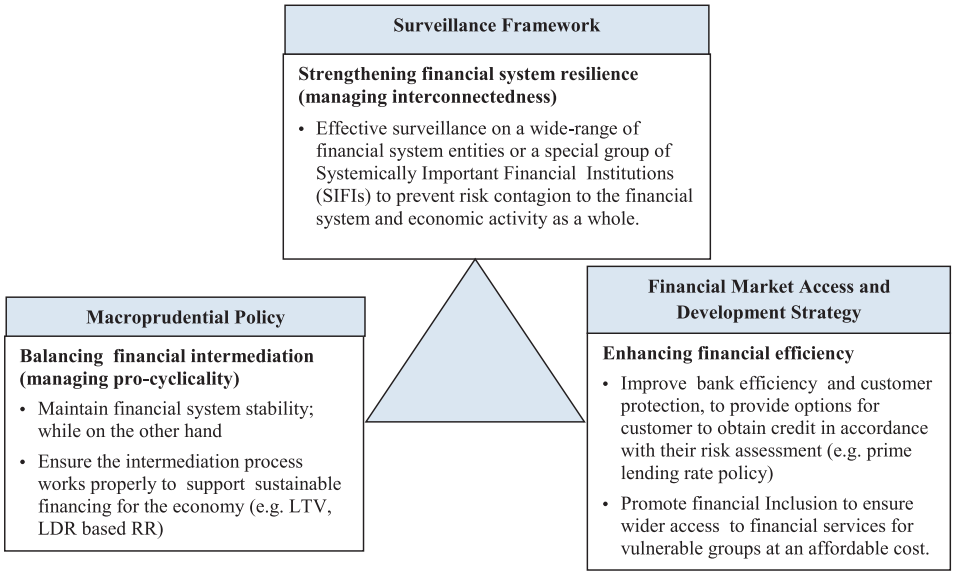
The coordinated implementation of a policy instrument mix is ultimately part of an important strategy to manage the monetary policy trilemma in the current climate blighted by widespread uncertainty. Coordination is critical, not only to address the sources of imbalances from the external and internal sides, but also to optimally manage the impact of monetary policy; while avoiding overkill and mutual exclusivity.

4.2 Financial System Stability Framework

In line with the monetary stability framework, the aim of the FSS framework is to achieve a broader sense of financial system stability, namely through (i) Strengthening financial system resilience (managing interconnectedness), by utilising the Surveillance Framework; (ii) Balancing financial intermediation (managing pro-cyclicality) by applying Macroprudential Policy; and (iii) Enhancing financial efficiency by utilising financial market access and development strategies.

Apart from serving as an anchor for macroeconomic stability, Bank Indonesia continues to promote competitiveness in the banking sector. We will continue to pay particular attention to policies that facilitate the banking system in adjusting to a competitive environment, while ensuring continued systemic soundness, promoting efficient risk management, and reinforcing their desirable role as effective financial intermediaries.

Diagram 5
Financial System Stability Framework



The banking industry must continue to be encouraged to improve its resilience, efficiency and its role in intermediation. A broadening of the public's access to an affordable banking service through the financial inclusive programme is included as part of strengthening the intermediation function. The financial inclusion programme must be implemented from both the supply and the demand sides. From the supply side, broadening of an affordable banking services access, and making available banking products that meet the needs of the lower income society must be carried out. In this regard, going forward, Bank Indonesia will continue to broaden banking service access by way of non-conventional measures through the use of information technology, telecommunication, and agent cooperation or otherwise known as branchless banking or mobile payment services. Through this strategy, banking services will reach every layer of the society without always being physically present in a bank office.

In Indonesia, we still have ample room to strive to make banks become more efficient (efficiency space). This could be perceived as policy space to reduce the cost of doing business. Moreover, ensuring financial institutions' continuous evolution as effective financial intermediaries will help promote inclusive growth, which would lessen unequal access to financial services. In Indonesia, there is a case to be made for a structural rise in financial intermediation given that the credit to GDP ratio remains relatively low at 31% compared to our Asian peers.

4.3 Integration of Monetary and Financial System Stability under Enhanced Inflation Targeting Framework (ITF)

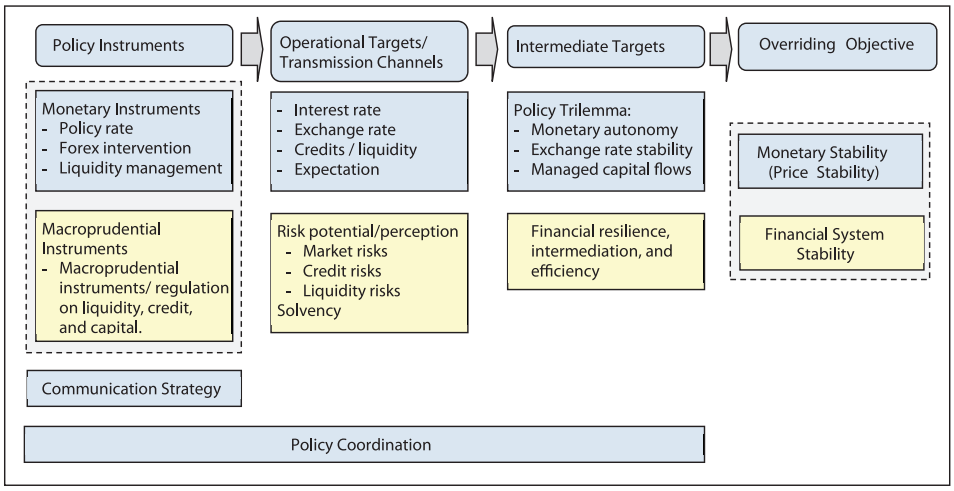
Within the above policy perspective, the achievement of macroeconomic stability is not only tied with monetary stability (price stability), but it also interacts with financial system stability. The central bank's policy formulation would involve the evaluation of the strategic roles of monetary policy and the financial system at the same time. In this regard, Bank Indonesia considers that ITF remains a reliable monetary policy strategy in Indonesia, yet it needs to be enhanced by refining the future ITF implementation strategy. There are two rationales underlying the enhancement. *First*, evaluations of ITF implementation in Indonesia have shown the need for a number of adjustments and refinements to the ITF, which have been undertaken. There is justification for implementing the ITF which is not rigid as an ideal format for the Indonesian economy (Juhro et al., 2009). *Second*, Indonesia's resilient economic performance during the GFC gives confidence about the aptness of ITF as a reliable monetary policy strategy for the country. However, considering the dynamic and complexity of challenges we are facing, the framework would need to be enhanced further.

Five principles of enhancement are suggested, as follows: (Warjiyo, et al., 2012)

- The policy framework should continue to adhere to an inflation target as the overriding objective of monetary policy. The main characteristics of ITF will remain, e.g. preemptive, independent, transparent and accountable policy implementation.
- Appropriate monetary and macroprudential policy integration is required in order to buttress monetary and financial system stability.
- Managing the dynamics of capital flows and exchange rates. To support macroeconomic stability, coordinated implementation of a policy instrument mix should ultimately be part of an important strategy to optimally manage the monetary policy trilemma.
- Strengthening policy communication strategy as part of policy instruments. Policy communication is no longer for the sake of transparency and accountability, but should be converted into an additional monetary policy instrument.
- Strengthening Bank Indonesia and Government policy coordination. Policy coordination is crucial considering that inflation stemming from the supply side creates the majority of inflation volatility.

The improvement of the monetary framework under 'enhanced' ITF, through monetary and macroprudential policy instrument mix, can be depicted in the diagram below.

Diagram 4
Monetary Policy Framework under 'Enhanced' ITF



In this regard, under 'enhanced' ITF, the flexibility in policy implementation can be brought about, among others, through supplementary macroprudential instruments in addition to monetary instruments, which should reinforce each other. While monetary instruments will be utilised to influence monetary variables, such as the interest rate, exchange rate, credit, and expectations, macroprudential instruments will be utilised mainly to manage potential risks or negative perceptions in the financial markets. In connection with the measures to overcome the potential of policy conflicts it is important to prioritise the policy objectives by setting a price stability (inflation) indicator as an overriding objective.

4.4 Strengthening Policy Coordination to Enhance Structural Reforms

The Asian financial crisis of 1997/98 has taught us that macroeconomic stability can offer no guarantee of sustainable economic performance, as long as the economic infrastructure is fraught with weaknesses. Therefore, the authorities in Indonesia must strengthen policy coordination and apply an integrated macroeconomic strategy. Among others, the main thrust of the strategy should be to strengthen policy through improved monetary and financial stability, supported by integrated structural reforms. Despite considerable debate on the immediate causes of the Asian financial crisis of 1997/98, there is a broad consensus that the crisis was exacerbated by a number of structural weaknesses that developed in the economy long before the crisis hit. Unless these weaknesses are overcome, the prospect for a sustainable recovery will remain in doubt.

Among these weaknesses is the deteriorating economic competitiveness. As the crisis has changed the circumstances, Indonesia must deal with global challenges from a much weakened structural position. In this regard, to effectively strengthen economic competitiveness, it is essential that broader integrated structural economic reforms are implemented, focusing on the infrastructure, labor, and legal sectors. These are reasonable measures, given that poor competitiveness is mostly caused by sluggish investment, labor market vulnerabilities, and legal uncertainties. To remedy these weaknesses, considerable progress has been made in building the legal and institutional frameworks to support sustainable economic activities. Since 2005 the Government has instituted legal reforms, accelerated infrastructure development and improved the investment climate, together with working on new investment and labor laws.[5] These structural reforms, supported by an enhanced legal and institutional framework, will support more advanced stages of economic recovery and improve external sector performance, which will consequently strengthen international reserves and stabilize the domestic currency.

5. Conclusion

Underpinned by a wide-ranging structural reform, the Indonesian economy has gained significant improvement since the 1997/98 crisis. This has permitted the economy thus far to successfully navigate through the recent global storm and follow an optimistic path for sustainable economic growth into the future.

In the midst of global uncertainty, the policy configuration to maintain sustainable economic growth should be aimed at striking appropriate internal and external balances. This implies that we need not abandon the exporting strategies, while building up the domestic demand side of the economy. The role of the central bank should be directed at integrating the monetary and financial system stability framework. Application of a mix of monetary and macroprudential policies are necessary given the multichallenges facing the economy, while using structural policies to address medium term issues. At the operational level, policy responses in the monetary, financial, and real sectors should be implemented properly by considering their magnitude, timing and sequencing. Therefore, strengthening policy coordination among policy authorities is very essential.

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5. For examples, Presidential Decree No.67/2005 with regard to the Acceleration of Infrastructure Development and Presidential Instruction No.3/2006 with regard to the Investment Climate Improvement Policy Package.

A change in the framework will have a number of significant implications on the institutional mandate of Bank Indonesia. As a modern central bank, Bank Indonesia should assume a greater role in delivering social welfare, as its responsibilities are not only related to monetary stability, but also financial stability in order to safeguard economic growth sustainability in the medium-long term.

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SESSION 7: PANEL DISCUSSION

STRUCTURAL PROBLEMS OF THE KOREAN ECONOMY AND ITS ECONOMIC POLICY DIRECTIONS

By
Park, Yang Su[1]

1. Introduction

Global liquidity increased sharply upon the implosion of the Bretton Woods system in the early 1970s and wholesale financial deregulation in the 1980s. The swelling global liquidity and increased cross-border capital flows led to capital inflows into emerging market countries with high growth potential. These capital inflows established a foundation for emerging market countries to sustain their high growth trends, but were not without side-effects including a widening divergence between the financial sector and the real economy. In fact, some Asian countries were hit by a currency crisis in the late 1990s.

In the absence of a global safety net, those emerging market countries that suffered a currency crisis focused on securing foreign currency liquidity by way of the accumulation of foreign reserves through current account surpluses. Korea also followed the export-oriented growth strategy. This strategy had positive effects such as productivity improvement in the area of tradable goods and the expansion in external debt servicing capacity, but started to demonstrate negative side-effects such as a household debt overhang, income disparity among sectors, and the breakdown of the linkages running from growth to employment and income. The Korean economy is now at a crossroads where it should adjust its existing export-oriented growth strategy to pursue sustainable growth.

This paper examines the impact on emerging market countries' economic policies from the increase in capital flows following changes in global financial environment. It also sets out to examine the progress Korea has made since the currency crisis by following an export-oriented growth strategy together

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1. Director of Macroeconomic Modeling Division, Research Department, the Bank of Korea. The contents of this paper represent the personal opinions of the author and do not necessarily reflect the official view of the Bank of Korea. I would like to thank Lee Hannah and Yeon Seung Eun, Junior Economists of the Bank of Korea, for furnishing data.

with the economic structural problems that it has given rise to before suggesting the direction for implementing economic policies going forward.

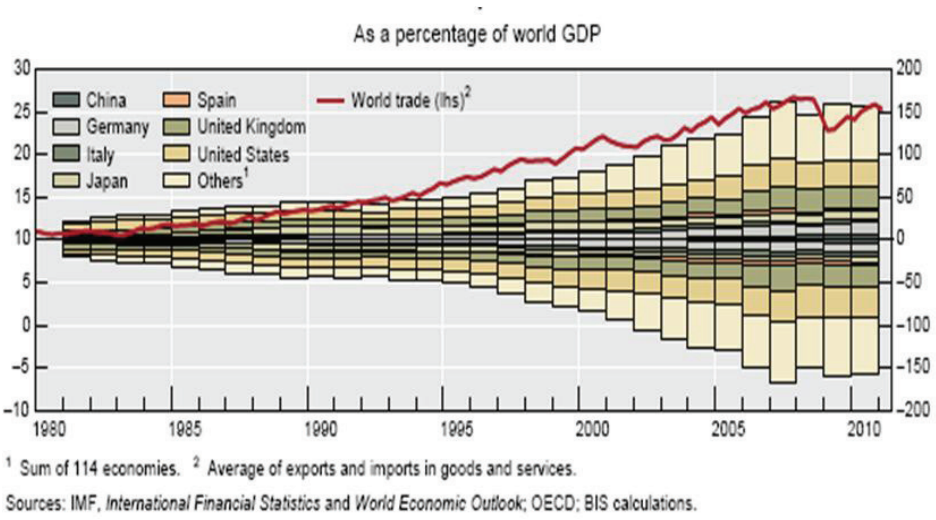
The remainder of this paper is organised as follows. First, Section 2 explains the background to emerging market countries' policies to sustain their current account surpluses. Section 3 analyses the influence of an export-oriented growth strategy on productivity, the current account, wages and interest rates and Section 4 discusses the structural problems of the Korean economy including the household debt overhang. Lastly, Section 5 undertakes a comprehensive evaluation of the current economic conditions in Korea and suggests directions for implementing economic policy going forward.

2. Changes in Global Financial Environment and Emerging Market Countries

2.1 Expansion of Capital Flows and its Influence on Emerging Market Countries

In the aftermath of the collapse of the Bretton Woods system, financial regulations continued to be eased starting from the 1980s and capital accounts also were progressively liberalised. Accordingly, liquidity increased with innovative banking techniques and derivatives emerging, and advanced country capital frequently flowed from country to country in search of high returns. Global banks, in particular, adopted a global business strategy involving the ratcheting up of leverage, thus sharply increasing cross-border capital flows (global banking glut). As a result, global liquidity increased sharply and Figure 1 shows that global investment positions have been massively enlarged since the 1980s.

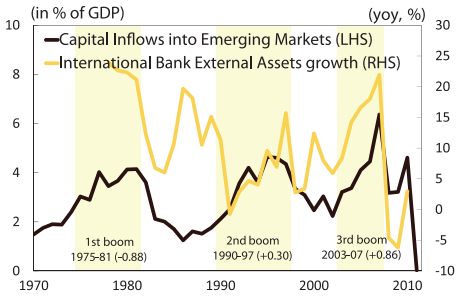
Figure 1
Global Investment Positions in Major Countries



Source: Cited at second-hand from the IMF and the GFSR.

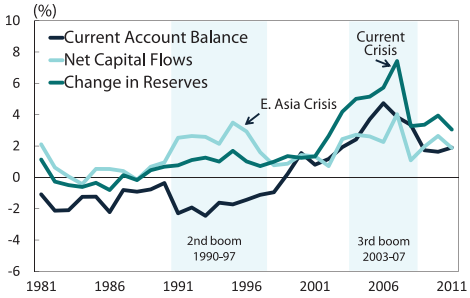
The increase in global liquidity and the liberalisation of capital flows fueled sudden capital inflows into those emerging market countries maintaining high growth. As Figure 2 shows, three peak periods of capital inflows have been observed since the 1970s. Meanwhile, external transactions by type in Figure 3 show that capital inflows into emerging market countries were going, mostly, to finance current account deficits before the 2000s. Since then, however, capital inflows have been continuing despite current account surpluses in emerging market countries. The IMF (2011) analysed that this state of affairs is attributable to the fact that the influence of global factors (push factors), including global liquidity conditions and the global preference for risky assets, had increased.

Figure 2
Global Liquidity and Capital Inflows into Emerging Market Countries[1)]



Notes : 1) Low and Medium Income Economiesof World Bank
2) Figures in ( ) represent the correlation coefficients between capital inflows into emerging market countries and global liquidity during expansion phases.
Source : WDI, BIS

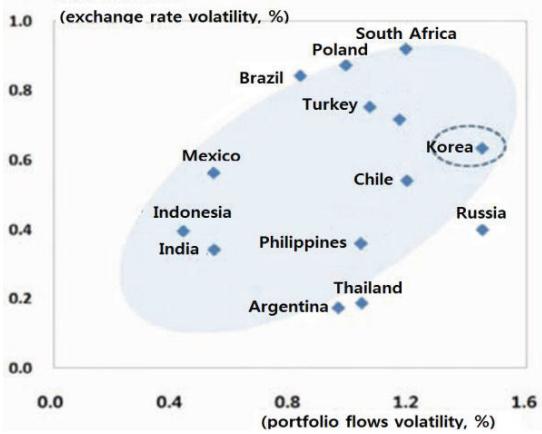
Figure 3
Emerging Market Countries'[1)] External Transactions by Type



Note : 1) Low and Middle Income Economies of World Bank
Source : WDI

At periods of enlarged capital inflows, emerging market countries can expect a positive effect on economic growth through, for instance, a reduction in funding costs. However, if there are excessive capital inflows, the consequent currency appreciation will weaken their competitiveness in the area of tradable goods, thus actually having a negative influence on their economic growth. In truth, emerging market countries such as Korea, Thailand, Mexico and Brazil all experienced currency appreciation and stock and asset price inflation with their current account persistently in deficit and their capital accounts in surplus in the course of the 1990s. Meanwhile, with the surge in capital flows, exchange rate volatility increased, which acted to slow export growth. In the case of Korea, it has been analysed that since the early 2000s an increase of one standard deviation in exchange rate volatility brings a 0.12~0.17% point drop in the volume of exports (Park and Choi, 2010). Figure 4 shows that there is a positive correlation between portfolio investment capital inflows and exchange rate volatility.

Figure 4
Volatility[1] of Portfolio Investment Fund Inflows and Foreign Exchange Fluctuations



Note: 1) Standard deviation of inflows of portfolio investment funds/nominal GDP (2000.1/4 ~2010.2/4).Source: IMF.

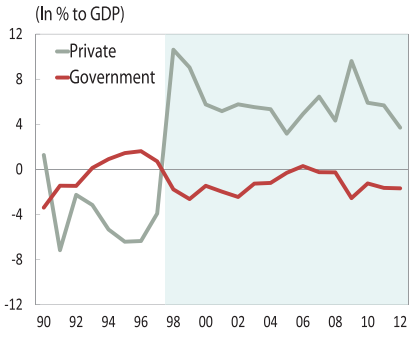
Moreover, excessive capital inflows could cause macro-financial dissonance, meaning a weaker linkage between capital movements and real sector activities, as they lead to surges in net financial transactions which have nothing to do with the real economy. Fujiwara and Takaashi (2011) analysed that, for Asian nations, the interconnectedness of their real economies with China has heightened, but the volatilities in their stock and bond markets have been affected greatly by the US and Europe.

Meanwhile, capital inflows to emerging market economies have experienced sudden stops or rapid capital outflow, regardless of the countries' economic fundamentals, where unrest or shocks in the international financial markets occur. The Asian currency crisis in the late 1990s is attributable to this factor. In addition, when nations' financial transactions are closely linked with each other, like they have been recently through global banks, an economic crisis of one nation can be easily transmitted to other nations. Shin (2011) and Gourinchas (2011) argued that the 2008 crisis in the US turned into the global financial crisis partly because of the global banking glut.

2.2 Increases in Current Account Surpluses of Economies that Experienced Crises

The Asian emerging market economies that experienced the Asian currency crisis in the late 1990s have since then had tendencies to maintain current account surpluses as their net savings (gaps between savings and investment) in the private sectors have expanded sharply. This is a kind of a learning effect, due to the realisation that their nations could be vulnerable to sudden stops in the case of capital flow liberalisation. This also implies that these nations have made efforts to ease the instabilities of their financial markets by enhancing their external payment capacities through increases in external assets sourced from current account surpluses. According to empirical analysis based on the savings decision model, emerging market economy current accounts have increased by 5~6% of their GDP since the Asian currency crisis, reflecting this learning effect.

Figure 5
Sectorial Accounts[1)]of Economies[2)] that Experienced Crises



Notes:1)Private sector refers to current account minus government balance2) Unbalanced averages of Indonesia, Korea, Malaysia, Thailand, and the Philippines.
Sources: WEO, IMF.

Table 1
Empirical Analysis of Factors Determining Current Accounts

	Medina et al.(2010)	Lee et al.(2008)
Structural changes in Asia	**0.05*****	**0.06*****
Fiscal Account	0.48***	0.19***
Ratio of ages under 15	0.06***	-
Ratio of ages over 64	-0.04	-0.14**
Relative income	-0.01	-0.02*
Oil Account	0.22**	0.23***
R^2	0.38	0.52

Note: *, **, *** indicate significances at 10%,5% and 1% levels, respectively.

Indeed, external assets are still at insufficient levels for many emerging market economies, as it is difficult for them to maintain current account surpluses if their goods accounts do not record surpluses. Emerging market economies therefore strive to run goods account surpluses by sharpening

their competitive edges in tradable goods in terms of price and quality. If we look at the external asset volumes and current account balances of major economies in Table 2, those nations with large holdings of external assets have run current account surpluses for a long time.

Table 2
Volumes of External Assets of Major Economies[1)]

(billion dollars, %)

	Japan	German	Netherland	Switzerland	**Korea**
External Assets[2) 3)]	7506	8782	3826	3619	**742**
	(127.9)	(246.0)	(457.5)	(569.4)	**(66.5)**
Net External Assets[2) 3)]	3255	1184	314	937	**-97**
	(55.5)	(33.2)	(37.6)	(147.4)	**(-8.7)**
Current Account Surplus to GDP ratio[4) 5)]	2.7	3.7	4.4	7.5	**3.6**
	(31)	(20)	(31)	(31)	**(19)**

Notes: 1) Nations which have maintained current account surpluses and net external assets for a long time.
2) Figures within ( ) represent the ratios to GDP.
3) Based on IIP in 2011.
4) Calculating only the years in which current account surpluses were recorded, from 1980 through 2011.
5) Figures in ( ) represent the numbers of years during which current account surpluses were run, from 1980 through 2011.
Sources: WEO, IMF.

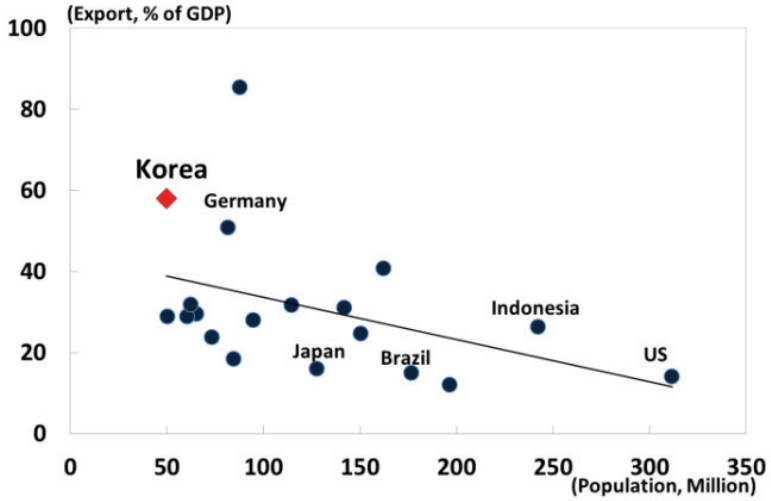
Emerging market economies' efforts to run current account surpluses have been made basically to deal with liquidity risks caused by the inconvertibilities of their local currencies, but are a result also of the absence of an international last lender of resort, which is one limit of the international monetary framework. As there have been no functioning global financial safety nets since the Asian currency crisis, that can replace foreign reserves, emerging market economies have had no choice but to build up foreign reserves through current account surpluses, to avoid foreign exchange crises when sudden capital flow stops occur.

3. Adoption of Export-oriented Strategies in Korea and Wages and Interest Rates

3.1 Export-driven Growth Strategy and Current Account Surplus

Korean policymakers and private sector economic agents began to realise the importance of the current account surplus and increase in foreign reserves while experiencing the Asian currency crisis and the global financial crisis, and have thus pushed ahead with an export-led growth strategy. Many scholars and policymakers thought that the excessive domestic demand and appreciation of the won caused the Asian currency crisis, by making the nation more vulnerable to external factors, and that export-driven growth was an inevitable strategy for the Korean economy given its small domestic markets.

Figure 6
Relationship between Populations and the Ratio of Export to GDP in Major Countries[1)]

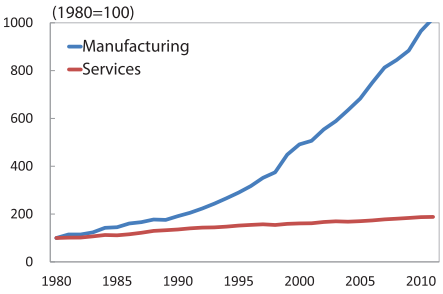


Note : 24 nations with large populations (excluding China).Sources : WEO, IMF.

In the 2000s, when global competition has intensified further, the productivity of the tradable goods sector increased dramatically thanks to export companies' efforts to strengthen their competitiveness. Meanwhile, the productivity in the non-tradable goods sector stagnated. This was partly

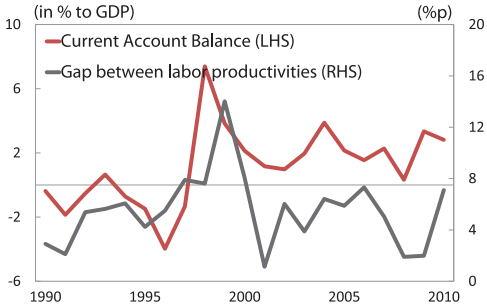
because of the lack of efforts to increase productivity in the service sector. There is a high likelihood, however, that as the service sector has served as a buffer in the process of the manufacturing sector workforce adjustment, this led to declines in service sector productivity. Consequently, while exports have seen high growth due to the enhanced productivity in the tradable sector, the stagnant productivity of the service sector has acted as a stumbling block to income increases, tempered the demand for imports, which reinforced the continuous trend of current account surpluses.

Figure 7
Labour Productivity by Industry



Sources: Bank of Korea, Statistics Korea.

Figure 8
Current Account and Gap between Labour Productivities



Sources: Bank of Korea, Statistics Korea.

Empirical analysis also find that the widening productivity gap between the tradable and non-tradable goods sectors since the 1990s had a significant positive impact on the current account surplus volume. Table 3 shows the results of regression analysis by adding the productivity gap between the manufacturing and the service sectors to the current account decision model. It illustrates that, if the period of the pre-1990s is added, the coefficient of the productivity gap is not significant, and this coefficient becomes significant if only the post-1990s period is used.

$$CA_t = \alpha_0 + \alpha_1 CA_{t-1} + \alpha_2 pgap_t + \alpha_3 emp_t + \alpha_4 growth_t + \alpha_5 tot_t + \alpha_5 rrate_t + \varepsilon_t$$

CA_t : Current Account in to GDP, $pgap_t$: labour productivity gap,

emp_t : Number of Employees in percent change, $growth_t$: growth rate,

tot_t : Terms of Trade in percent change, $rrate_t$: short-term real interest rate

Table 3
Impacts of Labour Productivity Gap on Current Account

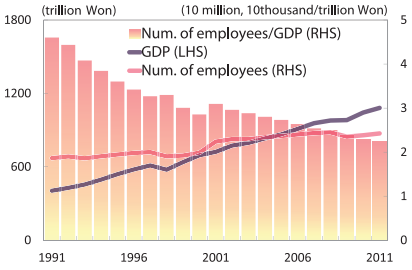
1980.1Q~2012.2Q	0.003 (0.72)	-0.06** (0.02)	0.01 (0.43)	0.03*** (0.01)	-0.01 (0.54)	0.84
1990.1Q~2012.2Q	0.03** (0.05)	0.03 (0.52)	-0.08*** (0.01)	0.02** (0.02)	0.01 (0.56)	0.79

Note: 1) **, *** indicate significances at the 5% and 1% levels, respectively.
2) Figures within ( ) represent the p-values.

3.2 Restraints on Wages and Current Account Surplus

Apart from the stagnation of productivity in the nontrade sector, structural factors have also restrained wage growth in the economy as a whole. While the employment inducement effect of production has declined since the 2000s, export-oriented industries in the trade sector such as the electricity and electronic businesses have relatively low employment inducement coefficients, and have not absorbed labour force sufficiently despite their high growth. Moreover, as increased trade with emerging economies including China has led to massive imports of products made by their SME manufacturing sectors which are based on low wages, wages in the sectors in Korea with comparative disadvantages have been exposed to downward pressures.

Figure 9
GDP[1)] and Number of Persons Employed



Note: 1) Real GDP based.
Source: Bank of Korea.

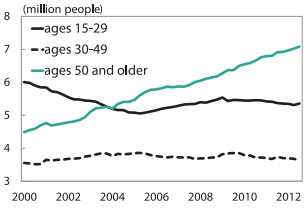
Table 4
Employment Inducement Coefficientsby Industry

	2000(A)	2010(B)	B-A
Manufacturing	13.2	9.3	-3.9
(Electric &Electronics)	14.5	6.2	-8.3
Construction	17.0	13.7	-3.3
Service	21.5	16.6	-4.9
Total Industry	18.1	12.9	-5.2

Note: 1) Real GDP based.
Source: Bank of Korea.

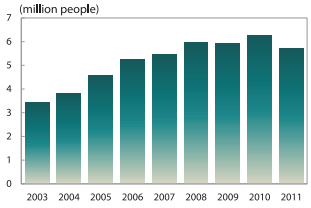
On the supply side, idle workers have increased mainly among the elderly, youth and female work forces. Despite the slowing rate of population increase, the working-age population above 15 years of age has risen rapidly, especially in the 50s and 60s age group. The youth population, particularly those with high levels of education, is searching over longer periods for decent jobs given the scarcity of available jobs, while female participation in economic activities has steadily increased. However, with jobs limited, a considerable number of workers have reduced the reservation wages that they are prepared to accept and are suffer long waiting periods for job openings. This idle work force helps to dissipate rapidly the new labour demand in times of recovery, leading to constrained growth in wages even despite an expansion in employment.

Figure 10 Economically Inactive Population by Age



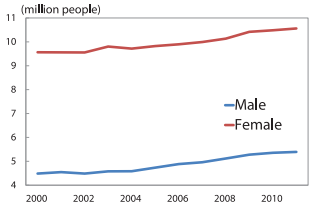
Source : Statistics Korea.

Figure 11 Number of Job Seekers



Source : Statistics Korea.

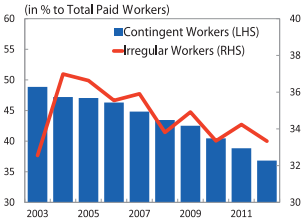
Figure 12 Economically Inactive Population by Gender



Source : Statistics Korea.

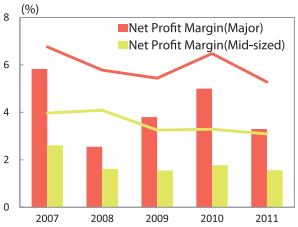
Although declining since the Asian currency crisis, the proportion of irregular workers still remains high. The numbers of quasi-irregular workers have also soared, including those of indefinite contract workers, who are categorised as regular workers but have far poorer wage levels and welfare benefits compared to subcontract workers and special contract workers. As the wage competitiveness and wage elasticity of labour supply are low for quasi-irregular workers, an increase in the number of quasi-irregular workers constrains wage increases for regular workers. In the traditional service sector including wholesale and retail businesses and restaurants and accommodations, the intensification of competition and trends toward larger scale businesses and greater specialisation since 2005 have led to a big shrinkage in operating profits for the self-employed, which in turn puts restraints on wage increases for paid workers. The worsening conditions for the self-employed in the segmented labour market have hampered wage growth, by heightening paid workers' incentives to maintain their statuses.

Figure 13
Proportions of Contingent[1] and Irregular Workers



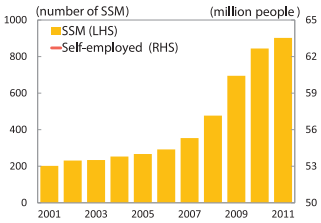
Note: 1) Less than 1-year fixed-term contract employees.
Source: Statistics Korea.

Figure 14
Profitability of Large Enterprises and SMEs



Source: Bank of Korea.

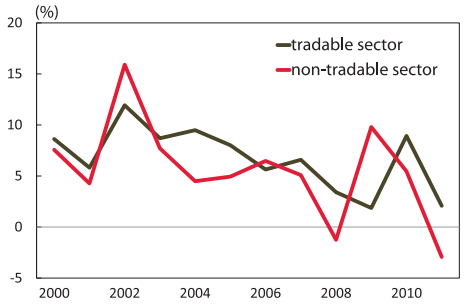
Figure 15
Self-employed and SSM



Source: Korea Small Business Institute.

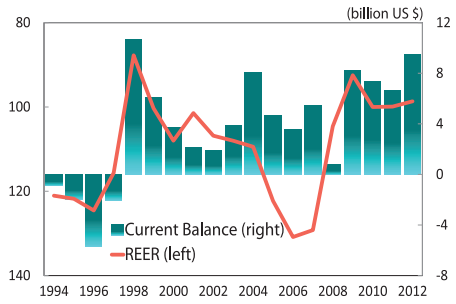
Due to the above-mentioned factors, the growth of overall wages, specifically in the non-trade sector, remains very low. According to the Balassa-Samuelson effect, rapid productivity growth in the trade sector causes growth in wages and prices in the non-trade sector and an overvalued real exchange rate, leading to a worsening of the current account. In Korea, however, wage growth in the non-trade sector has been restrained, putting depreciation pressures on the real Korean won exchange rate, which is likely to have contributed to the continued surplus in the nation's current account.

Figure 16
Wage Growth in Trade and Non-trade Sectors



Source: Statistics Korea.

Figure 17
KRW Real Effective Exchange Rate[1] and Current Account



Note: 1) 26 trading partners.
Sources: IMF, BIS.

3.3 Current Account Surplus and Downward Pressure on Interest Rates

With capital flows having been greatly liberalized since the Asian currency crisis, the maintenance of a current account surplus and undervaluation of real exchange rate imposed downward pressures on real interest rates, by creating expectations of exchange rate appreciation and reducing the national risk premium. According to Kim and Park (2013), the neutral real interest rate has received pressures for downward adjustment by 2~3% points from the decline in potential growth and by 2.5% points from the current account surplus.

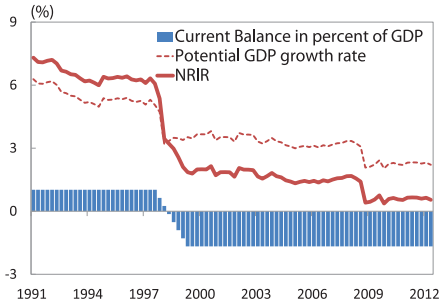
Table 5
Potential GDP Growth Rate of Korea (During-period average, %)

(During-period average, %)

	1990 ~99	2000 ~09	08~09	2012 ~12
•Production function approach Ⅰ	6.7	4.5	2.8	3.7
•Production function approach Ⅱ	6.7	4.6	3.0	3.6
•HP-filter method	6.7	4.5	3.4	3.3
•Multivariate unobserved components model	6.4	4.4	2.5	3.8

Source: Re-quotation from Park et al. (2013).

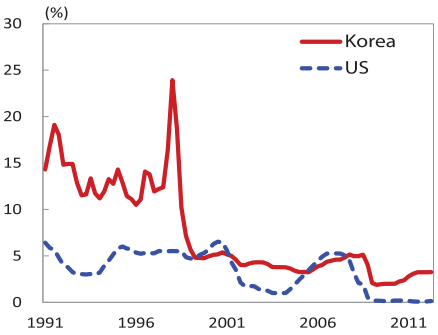
Figure 18
Factors Behind Korean Neutral Real Interest Rate (NRIR)



Source: Re-quotation from Kim and Park (2013).

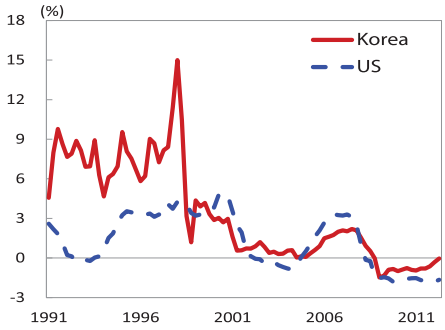
As shown in Figure 20, Korea's real policy rate has declined from 5~9% before the Asian currency crisis to –2~2% since the crisis. Compared to the US real policy rate, it was high in absolute terms before the crisis, but the gap between them has narrowed greatly since the crisis and there have even been reversals between the two rates. Despite the increase in liquidity and the decline in real interest rates, prices have stabilised due to the constraints on wage growth and to the imports of low-price goods from China. This has helped the real policy rate to remain low for a long time.

Figure19
Nominal Policy Rates of Korea and the US



Source: Re-quotation from Kim and Park (2013).

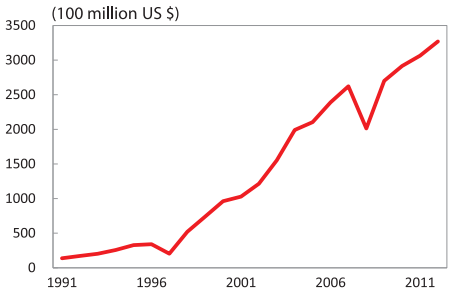
Figure 20
Real Policy Rates of Korea and the US



Source: Re-quotation from Kim and Park (2013).

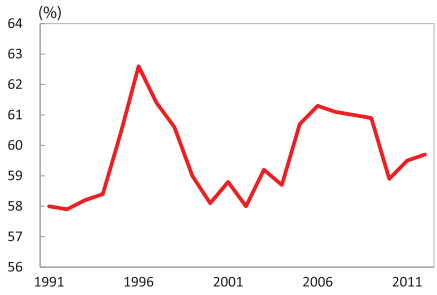
As described above, since experiencing the Asian currency crisis, Korea has enhanced its external payment capability by maintaining a current account surplus and accumulating a large amount of foreign reserves, while adopting an export-led growth strategy. However, its export items have been concentrated in the IT sector, which has a low employment inducing effect, while the share of labour income has declined due to the restraints on wage increases given the nature of the labour market and the industrial organisation, while the continued current account surplus has created expectations of exchange rate appreciation. As a result, downward pressures on interest rate have increased, and a low-interest rate environment has been maintained for a long time. The Korean economy accordingly faces a structural problem, in which household debt is accumulated and the virtuous cycle of growth leading to employment and to higher income does not work smoothly. Due to changes in its population structure, Korea is also expected to face a decline in potential growth and a worsening of fiscal conditions going forward.

Figure 21
Foreign Reserve Holdings of Korea



Source: Bank of Korea.

Figure 22
Share of Labour Income in Korea



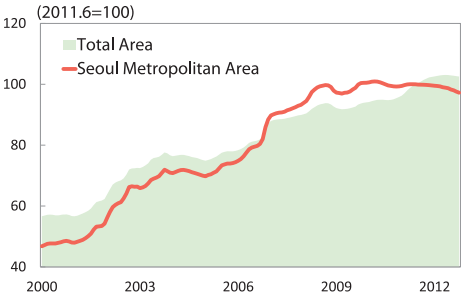
Source: Bank of Korea.

4. Structural Problems of the Korean Economy

4.1 Overhang of Household Debt

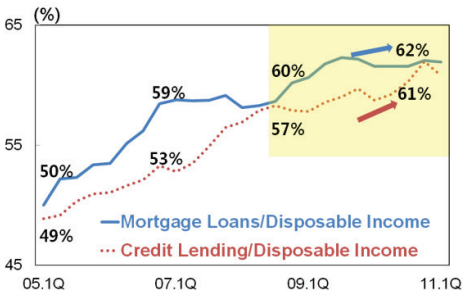
Despite the continuation of low interest rates and abundant market liquidity since the early 2000s, businesses enjoying improved credit ratings have preferred direct financing through the issue of stocks and CPs rather than indirect financing through banks. On the other hand, amid the easing of financial regulations and fiercer competition among financial institutions, banks have come to prefer more profitable lending to households. In addition, since the 2000s, demand for housing has surged reflecting a bulge in the 40-54 age bracket. Accordingly, home mortgage loans increased greatly until the mid-2000s, and household debt rose sharply as well in lockstep with rising real estate prices. Apart from this, since the global financial crisis, recourse to household loans for raising business capital or basic living expenses has also increased greatly, with such borrowings being mainly taken on by the self-employed and those in low-income brackets.

Figure 23
Housing Sale Price Index in Korea and in Seoul Metropolitan Area



Source: Bank of Korea.

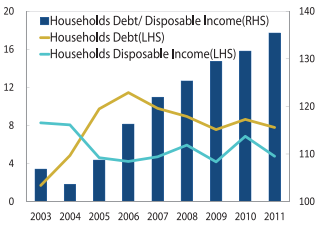
Figure 24
Ratio of Mortgage Loans and Credit Lending to Disposable Income



Source: Bank of Korea, National Information &Credit Evaluation (NICE).

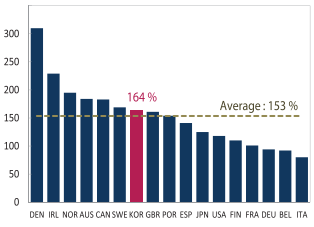
As can be seen in Figure 25, the growth rate of household debt has continued to exceed that of disposable income since the mid-2000s, and the ratio of household debt to disposable income has increased continuously as a result. Household debt in Korea has been on the rise ever since the global financial crisis unlike in the US and the UK, and is at a relatively elevated level as of 2012 compared with most major countries.

Figure 25
Household Debt, Disposable Income and Debt Ratio[1)]



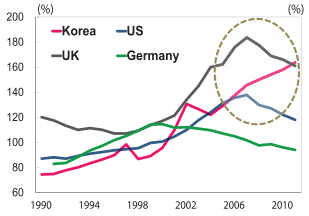
Note: 1) Household credit basis.
Source: Bank of Korea.

Figure 26
Ratio of Household Debt to Disposable Income by Country



Source: OECD Economic Outlook (2012).

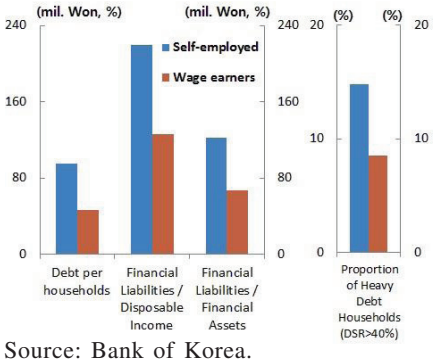
Figure 27
Ratio of Household Debt to Disposable Income in Major Countries



Source: Reports released by Central Banks, Statistical Office and Demark Financial Stability Report (2011).

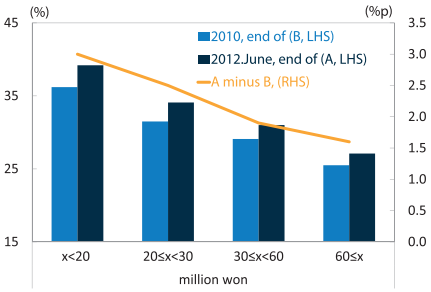
According to Park (2011), under the current conditions, Korean household debt is unlikely to trigger an economic crisis in the short term, but the vulnerable groups including those in low-income brackets, the elderly and multiple debtors are analysed as being at high risk of default. The trend of growing indebtedness has persisted and the structure of household debt has also worsened in a situation in which the income conditions of small and one-man businesses have been deteriorating. Those in low-income brackets have greater reliance on borrowings from non-banking institutions, and their delinquency rates have been rising rapidly, both of which have added to their default risk. The number of multiple debtors whose risk of default increases greatly during periods of economic downturn has also seen a sharp increase.

Figure 28
Debt Structure of the Self-employed and Wage earners and Proportion of Heavily-indebted Households



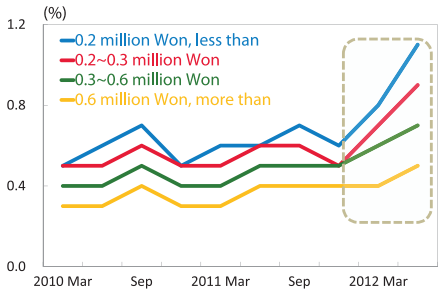
Source: Bank of Korea.

Figure 29
Proportion of Lending from Non-banking Institutions, by Income brackets



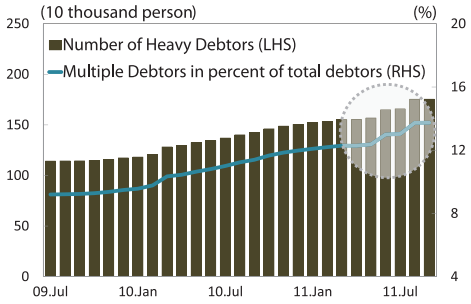
Note: 1) Lending by non-bank financial institutions/ lending by financial sector as a whole.
Source: Bank of Korea.

Figure 30
Household Lending Delinquency Rate by Income Brackets



Source: Bank of Korea.

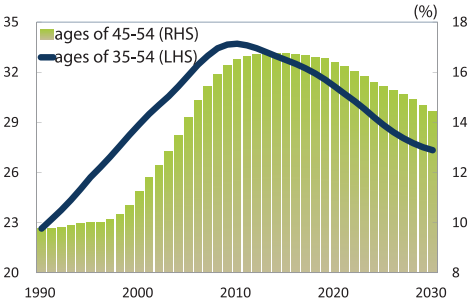
Figure 31
Multiple Debtors[1)]



Note: 1) Those taking out loans from at least three institutions. Source: Korea Credit Bureau (KCB).

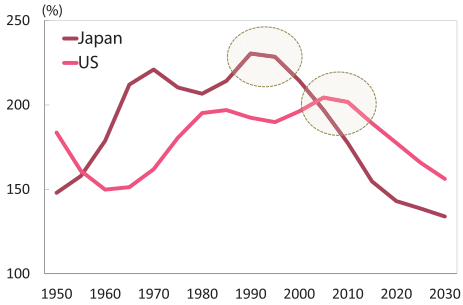
In view of projected changes in the demographic structure, policy efforts to adjust household debt seem necessary even though this debt is not likely to trigger an economic crisis in the short term. According to Statistics Korea, the share of those in the 30-54 age brackets in the population has started to decline from early 2010, further signaling the coming aging of society. Nishimura (2011) argues that Japan, the US and other major advanced economies experienced financial crisis once their economically productive population began to decline. This means Korea cannot entirely rule out the possibility that the household debt problem may serve to precipitate an economic crisis in the event of another large shock occurring or real estate prices taking a tumble in a situation in which the global recession drags on.

Figure 32
Share of Population Structure by Age Groups



Source: Statistics Korea.

Figure 33
Dependency Ratio[1]of the US and Japan



Note: 1) Population age of 15 to 64 / (total population minus population age of 15 to 64).
2) Shades corresponds to the financial crisis period.
Source: UN.

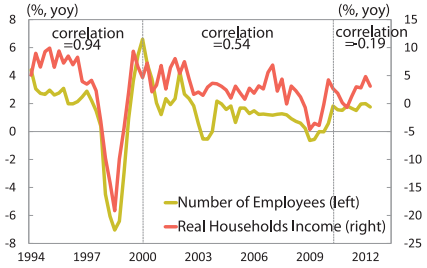
4.2 Weakening of Virtuous Cycle among Growth, Employment and Income

As noted earlier, Korea opted for an export-led growth strategy after the currency crisis, and economic growth has been led by large companies and exporters, particularly in manufacturing with a low job creation capacity. In particular, since the reduction of production costs is the key to

competitiveness in the IT industry, technological innovation has been achieved in line with maximising processing efficiency, and the labour required per output unit has declined rapidly with about half of the intermediate goods input relying on imports. The result has been jobless growth where high economic growth rates have not led to a corresponding increase in employment.

Because of the intensified global competition, exporters have found it hard to increase the unit value of exports despite run-ups in both raw material prices such as international oil prices and in the cost of intermediate goods due to the high exchange rate. In response, businesses have reduced labour cost by easing labour market rigidities, using idle manpower and taking advantage of their relations with subcontractor SMEs. As a result, as shown in Figure 34 and Table 6, the linkage running between employment and income has weakened greatly since the currency crisis. In other words, the increase in employment has not led to a large increase in household income.

Figure 34
Growth Rate of the Employees and Household Income



Source: Statistics Korea, Bank of Korea.

Table 6
Regression Analysis[1] of Household Income(or Wage) and Employment

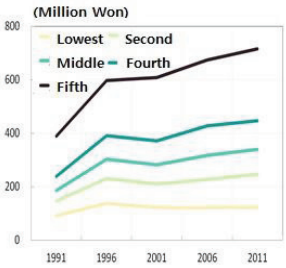
$\Delta \ln HI$ ( ) β β β ΔlnE ε
HI : household income, : wage,
E : employment, ε : error term

	Before the currency crisis[2]		After the currency crisis[2]	
	Household Income	Wage	Household Income	Wage
β	3.37**	1.74**	-0.18	-0.77

Notes: 1) Before the currency crisis (1994~1998),after the currency crisis (1999~2011) excluding global financial crisis (1999~2008.2q).
2) ** means significance below 5% level..

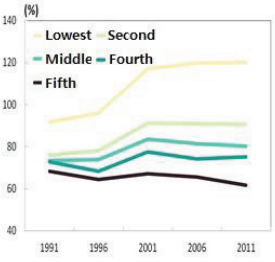
From the turn of the century, income imbalances have been deepening. As can be seen from Figure 35, the income of the high-income quintile has increased rapidly while that of the low-income quintile has stood still. Moreover, the propensity to consume of the lowest income quintile has risen somewhat while that for those in the third and higher quintiles has declined. As a result, the ratio of consumption expenditure relative to household income, the average consumption propensity, has declined rapidly since the mid-2000s. In other words, the deterioration of income distribution has had a negative impact on consumption.

Figure 35 Real Household Income by Quintile



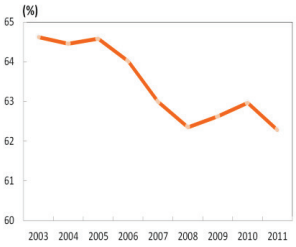
Source : Statistics Korea.

Figure 36 Average Propensity to Consume by Quintile



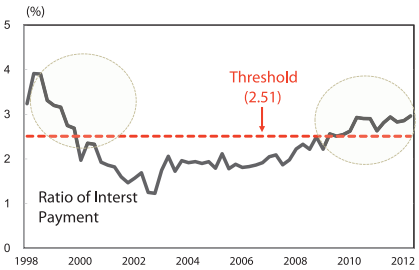
Source : Statistics Korea.

Figure 37 Ratio of Consumption Expenditure to Household Income



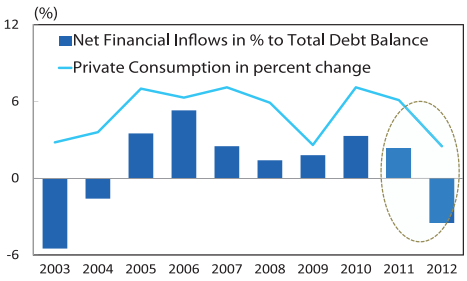
Source : Statistics Korea.

Figure 38
Ratio of Interest Payment and Threshold of Consumption Shrinkage



Source: Bank of Korea.

Figure 39
Net Funding Inflow Ratio[1)]And Growth rate of Private Consumption



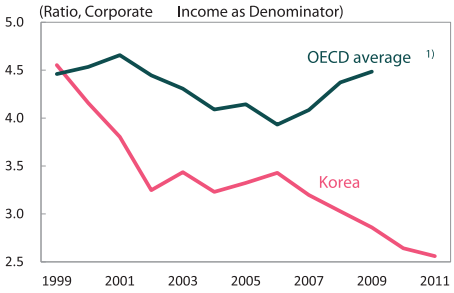
Note: 1) Growth rate of household debt(net increase in debt/debt balance) minus household lending rate (net payment/debt balance).
Source: Bank of Korea.

The overhang of household debt built up so far has also acted to shrink household consumption owing to the heightened debt servicing burden. According to Parkat et al. (2011), the burden of households' interest payments alone intensified beyond the point at which it acted to reduce consumption back in 2009. As shown in Figure 39, the funds available for consumption have fallen with households' payments of interest alone exceeding the net increase in debt in 2012.

In the meantime, owing to the combined effects of the industrial and labour market structures, the income generated from economic activities has accrued disproportionately to the corporate sector. As seen in Figure 40, the ratio of household to corporate income has declined continuously, and has shown a different pattern from other OECD countries. Increased corporate incomes have reduced the debt ratios of companies, but with little increase

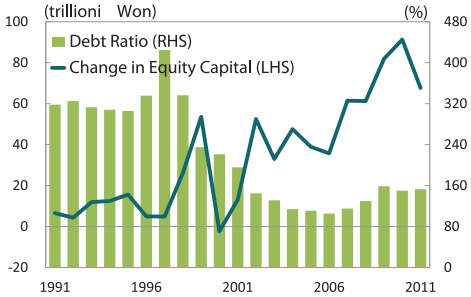
in their investment, their retention of income has increased. In conclusion, there has been a weakening of the virtuous cycle whereby increases in income of households and companies lead to rises in demand, which in turn expands production.

Figure 40
Ratio of Household Income to Corporate Income



Note: 1) the average of 25 OECD countries(excluding Korea).
Source: Bank of Korea.

Figure 41
Debt Ratio and Retained Capital[1)]of Corporations



Note: 1) Equity capital is based on manufacturing business.
Source: Bank of Korea.

4.3 Projection of Declines in Potential Growth Rates and of Deterioration in Fiscal Soundness

The OECD (May 2012) projects the potential growth rates in major OECD countries to hold steady at around the 1-2% level until 2030 overall without major changes. In contrast, the potential growth rate in Korea is expected to decline from 3.4% (2012~2017) to 2.4% (2018~2030). Academic institutions in Korea expect it to then fall further to about 2%. The decline in the potential growth rate is mainly attributable to a sharp decline in the contribution of labour input due to slowing growth of the economically-active population owing to aging, and to a slowdown in the growth of the capital stock resulting from the transit of the economy to a mature stage.

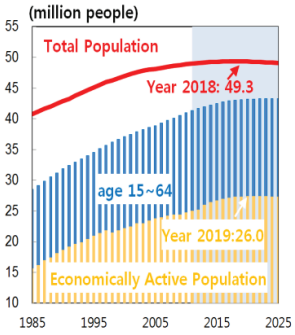
Table 7
Major OECD Countries' Potential Growth Rate Forecasts

(%)

	2012 ~17	2018 ~30
OECD	2.0	2.2
Korea	3.4	2.4
US	2.1	2.4
UK	1.6	2.2
France	1.8	2.1
Germany	1.6	1.2
Japan	0.9	1.4

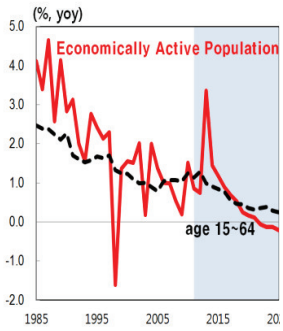
Source: OECD Economic Outlook. (2012.5).

Figure 42
Population Projection



Note) The shaded section represents the period for the forecasts.
Source: Statistics Korea.

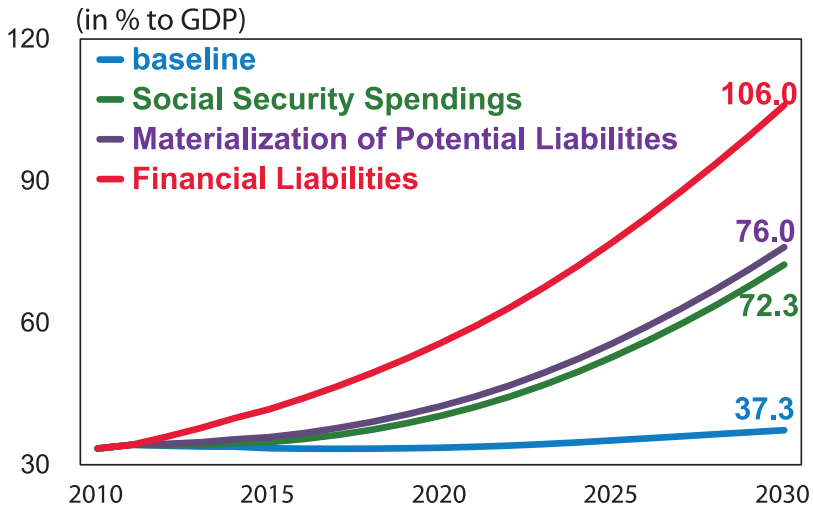
Figure 43
Productive Population Forecasts



Note) The shaded section represents the period for the forecasts.
Source: Statistics Korea.

There is growing likelihood of financial soundness worsening in the medium- and long-term as the population ages rapidly and the potential growth rate declines significantly. According to Park et al. (2011), the ratio of Korean government debt to GDP is very favourable, at about 33%, but is forecast to approach 100% by around 2030. If only a sharp rise in social security expenditures, such as for public pensions and health insurance, resulting from population ageing, is taken into account, the ratio can be expected to reach 70% in 2030. But if the materialisation of potential liabilities and growth in financial liabilities (related with the Foreign Exchange Stabilization Fund, the National Housing Fund, etc.) are also counted in, the debt ratio is forecast to exceed 100%. This situation demands substantial attention, given that according to Reinhart and Rogoff (2010) the growth rate falls by 1% point once the ratio of government debt to GDP exceeds 90%, and it then takes an average of 23 years for it to fall to 90% or lower.

Figure 44
Projection for Korean Government Debt-to-GDP Ratio



Source: Park et al. (2011).

5. Overall Evaluation and Economic Policy Directions

5.1 Overall Evaluation

The Korean government's adoption of an export-driven growth strategy was inevitable due to its original sin as an emerging market country that needed to expand its net savings, after learning from its experience of currency crisis in the process of changes in its financial environment including the rise in global liquidity and capital liberalization. This growth strategy has had positive effects ¯ Korea was hit less hard by the recent global financial crisis, as heightened productivity in tradable goods and a sustained current account surplus had become entrenched. The strategy is also revealing its limitations, however, causing household debt to soar, worsening the income distribution structure and weakening the virtuous cycle from growth to employment and income.

Due to growth being led by the manufacturing industry, centering around the electricity and electronic sectors, the Korean economy is not enjoying strong job creation effects, and corporate surpluses are concentrated in export-oriented and large corporations that are not enthusiastic about domestic

investment. The labour markets of the tradable and non-tradable goods sectors are cut off from each other, and the channels through which profits in the export sector lead to growth in income including wages in the domestic sector have weakened owing to idle manpower, to the use of quasi-regular workers and to unfair transactions. Workers weeded out in the process of restructuring of competitively disadvantaged sectors are launching small-scale businesses with limited market demand, and large corporations are also expanding their businesses to these areas, leading to the existence of many financially vulnerable persons including the self-employed and the low-income groups. Household debt has moreover soared, owing to the sustained trend of global financial easing, to the irrepressible real estate prices and to the preference for lending to households by financial institutions. Also, financially vulnerable groups have become highly likely to suffer bankruptcies, due to the sluggishness of domestic demand-oriented industries and to the limited flows of income to the household sector.

Meanwhile, households' accumulation of debt and declining incomes and worsening inequality in income distribution have been undermining the vitality of consumption and weakening the economy's resilience. In this situation, where the possibility is high of the global economic slump persisting for a considerable period of time, household debt is highly likely to trigger a crisis in the event of any huge shock such as a plunge in real estate prices or a decline in income. In addition, in light of the forecasts of a decline in the potential growth rate following future demographic changes, and of a rise in the government debt ratio, it is important to resolve the structural problems of the Korean economy as soon as possible so as to change the economic fundamentals to those under which sustainable growth can be maintained.

5.2 Future Directions for Economic Policy Implementation

It is desirable for the Korean economy to shift its growth strategy from an export-driven one to another one that seeks balanced development between exports and domestic demand, insofar as this does not undermine external asset accumulation, foreign exchange soundness and the global financial safety nets. The economy should adopt a strategy to reduce household debt gradually, since the corporate and government sectors remain sound. Also, the burden arising from the process of debt rescheduling for the financially vulnerable groups should be shared among households, corporations (including financial institutions) and the government in order to minimise the shock. Considering the situation of a large idle labour force, economic policy should focus on job creation rather than on production, and in the medium- to long-

term concentrate on expanding the potential growth of the economy by improving total factor productivity.

More specifically, it is appropriate to determine the required size of the current account surplus given the desire for further accumulation of external assets, foreign exchange soundness, and the progress in constructing a global financial safety net. The strategy would promote and seek development that is balanced between exports and domestic demand. It may be necessary to leave the exchange rate to be determined by the market, compatible with improved productivity, while keeping in mind the establishment of a global financial safety net and the degree of the private sector's foreign currency asset accumulation.

The Korean economy needs to narrow the productivity gap between its tradable and non-tradable goods sectors by strengthening the linkages between them, and to strengthen policy efforts to establish a foundation for long-term growth. It is important to expand the range of core export items to include those of industries having great capacity to create jobs, while working on improvement of the institutional framework for investment in human capital and the discovery of high-income, high-technology job types so as to enhance the productivity of the non-tradable goods industry. In order to increase potential growth, it would be advantageous to seek long-term industrial competitiveness not by increasing the intensive margins of the existing export goods but by securing their extensive margins through improvement of the levels of technology employed in their production and the development of new products.

To gradually relieve the adverse side-effects of labour market segmentation, it is necessary to develop measures to make use of the idle workers generated by demographic change and make efforts for the creation of quality jobs and reduction in the wage gap between regular and non-regular workers. Social expenditures for the poor and the aged must be raised, to keep income inequality from worsening, and efforts need to be made in the medium- and long-term to ensure that educational opportunities are given equally to all income groups. Meanwhile, creation of a fair trade environment in the relationships between large corporations and SMEs, between SSMs and smaller stores, and between contractors and subcontractors is also needed, so as to achieve a system in which large corporations cannot monopolise the markets and the fruits of growth are shared by all.

Rather than a dramatic debt reduction, to minimize shocks to the economy it would be better to develop measures to gradually resolve the debt problems by improving wages and the savings ratio. For those in most need, including the low-income groups in particular, injection of government funds or central bank lending can be made available from the standpoint of financial inclusion. Since a rise in real estate prices may act as a factor increasing household debt, and their fall act as a factor heightening systemic risks for financial institutions and increasing government debt (including worsening of the Korea Land & Housing Corporation balance), there is a need to promote real estate price stability.

It is important to avoid keeping interest rates at a low level for too long, so as reverse the strong risk appetite among households which has facilitated the accumulation of debt. However, independency of interest rate policy depends upon how much an export-driven strategy has been modified, upon whether regulatory instruments concerned with foreign exchange soundness have been secured, and upon how high the country's foreign exchange risk premium is. The advanced countries' aggressive implementation of quantitative easing policies would also act as a constraining factor. In this regard, additional policy instruments need to be secured, to ease foreign exchange volatility and ensure monetary policy independence. Appropriate foreign exchange regulations can in addition be a way of dealing with the economic trilemma resulting from maintenance of a floating exchange rate system.

Despite international efforts including the expansion of IMF resources, the strengthening of RFAs (Regional Financing Arrangements), and the establishment of currency swaps between central banks since the global crisis, there is as yet no global safety net to replace official foreign reserves. Therefore, continuous efforts should be made to expand such safety nets. The reason is that the holding of sufficient official foreign reserves reduces the possibility of crisis occurrence and is effective in easing the impact of global shocks as seen during the recent global financial crisis. Efforts should in addition be made to reduce systemic risks, through for instance the reduction of currency mismatches in emerging market countries and the provision of greater funding opportunities during times of crisis through the pursuit of regional bond market development.

Measures in response to the aging of and decline in population should be prepared from a medium- to long-term perspective, and a road map for maintaining fiscal soundness should be developed and policy should be implemented based upon a firm will to achieve this.

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SESSION 7: PANEL DISCUSSION

THE ROLE OF CENTRAL BANKS IN NEW SUSTAINABLE GROWTH MODEL: THE PHILIPPINE CASE

By
Evelyn R. Santos[1]

1. Global Growth Conditions: 2011 – 2012

There has been some improvement in global growth prospects in the second half of 2012 partly due to the easing of financial conditions after policymakers arrested what could have been an imminent crisis in the euro area. Meanwhile, encouraging indicators emerged from the United States, including better employment numbers and rising business confidence.

Global growth, however, is expected to remain below trend for the rest of the year. Europe is still facing its own economic difficulties with interlocking/ overlapping sovereign debt crisis and banking sector weaknesses. The escalation of the euro zone debt crisis has threatened the credit standing of all European government bond ratings. In 2011 and 2012, major rating agencies have made several sovereign ratings downgrade among Euro zone member states.

Incoming data from the US suggest less robust growth in 2012. Growth in the US could possibly be stalled by the excessive fiscal tightening caused by political gridlock. In particular, failure to reach an agreement on near-tem tax and spending policies would trigger a severe "fiscal cliff" in 2012, threatening the recovery of the US. US recovery may also be threatened by its vulnerability to contagion from an intensification of the euro area debt crisis. While US financial institutions have limited direct claims on the euro area periphery, it has strong financial linkages with the euro core area.

Growth in Asia slowed in 2011 due to weakening external demand. Export growth has been affected by the downturn in economic activity in Europe and in the United States. According to the Regional Economic Outlook published by the International Monetary Fund in April 2012, the region's trade surplus continued to shrink in the last quarter of 2011, with China playing a prominent role in this decline.

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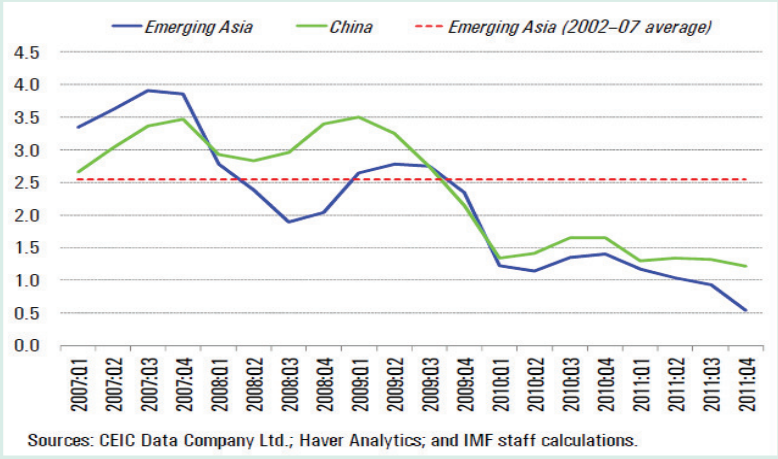
1. Deputy Director, Department of Economic Research, Bangko Sentral ng Pilipinas. Presented during the *SEACEN-CemCoA/BOJ High level Seminar on Finding Asia's New Sustainable Growth Model Post GFC: The Role of the Central Banks*, held at The SEACEN Centre at Sasana Kijang, Kuala Lumpur, Malaysia on 6-8 November 2012.

Figure 1. Emerging Asia: Trade Balance

(12-month rolling sum, in percent of Emerging Asia GDP)



Secondary Source: Regional Economic Outlook, IMF, April 2012.

There were also negative surprises from natural calamities and geopolitical tensions. The devastating earthquake and tsunami in Japan's Tohoku area and the flooding in Thailand in 2011 have caused disruptions in global and regional supply chains while unrest in some oil-producing countries has led to oil price spikes in the second quarter of the year.

2. Global Growth Outlook

2.1 How Do We See the Path of the Global Economy in 2012 and 2013?

The IMF in its latest October 2012 World Economic Outlook (WEO), has revised downwards its growth projections for 2012 – 2013 to reflect sluggish economic activity especially in advanced economies as a result of the ongoing European sovereign crisis, elevated unemployment, and fragile financial conditions in many parts of the world. The Fund forecasted world output to grow by 3.3% and 3.6% in 2012 and 2013. These are 0.2 percentage point and 0.3 percentage point lower than its July estimates.

Growth estimate for the US in 2012 increased to 2.2% from 2.1% while for 2013 the growth has been decreased by 0.1 percentage point to 2.1%. The upward projection for the US in 2012 reflects the continued expansion in private

credit and stabilisation in the housing market. For the Euro area, a mild recession is expected in 2012 with a growth estimate of -0.4%. This is due to rising sovereign yields, bank deleveraging and additional fiscal consolidation. Overall, the advanced economies are projected to grow by 1.3% in 2012 and 1.5% in 2013. Meanwhile, output in emerging and developing economies is expected to increase by 5.3% and 5.6% in 2012 and 2013, respectively.

Asia is the bright spot in the world economy. As the Table on IMF projections shows, growth in Asia is expected to decelerate but will remain relatively strong. In China, growth is projected to be at 7.8% and 8.2% in 2012 and 2013, respectively, as the economy will get a boost from accelerated approval of public infrastructure projects.

With the help from reconstruction spending, Japan is projected to grow at 2.2% in 2012. The crisis in Europe and problems regarding energy supply are likely to dampen Japanese economic activity and exports.

The still rosy outlook for Asia is underpinned by strong domestic demand, ample credit, strong labor markets and firm consumer and business confidence. The key downside risks for the region are the continued deterioration in the external environment.

IMF World Economic Outlook Projections In percent						
	2010	2011	As of Oct '12 Projections		Difference from July '12 WEO Update	
			2012	2013	2012	2013
World	5.1	3.8	3.3	3.6	-0.2	-0.3
Advanced Economies	3.0	1.6	1.3	1.5	-0.1	-0.3
US	2.4	1.8	2.2	2.1	0.1	-0.1
Euro Area	2.0	1.4	-0.4	0.2	-0.1	-0.5
Emerging and developing economies	7.4	6.2	5.3	5.6	-0.3	-0.2
Japan	4.5	-0.8	2.2	1.2	-0.2	-0.3
Developing Asia	9.5	7.8	6.7	7.2	-0.4	-0.3
China	10.4	9.2	7.8	8.2	-0.2	-0.2
India	10.1	6.8	4.9	6.0	-1.3	-0.6
ASEAN-5	7.0	4.5	5.4	5.8	0.0	-0.3
Source: IMF WEO, October 2012						

3. Main Risks to the Outlook

Emerging economies in Asia remains focused on the political and economic developments in Europe. While markets appear to have regained confidence in the policy framework in Europe, the euro zone is expected to contract slightly in 2012 and uncertainties remain elevated. As a result, a European-led downturn – possibly brought about by a political misjudgment, policy backing back-sliding or an unforeseen negative economic shock – and a prolonged recession cannot be discounted.

As European banks continue to cope with sovereign risks, weak economic growth, high rollover requirements, and the need to strengthen capital cushions to regain investor confidence, they would be put under pressure to reduce the size of their balance sheets. These could have an adverse impact on Asia in terms of trade finance and tighter funding source.

Meanwhile, incoming data from the US suggest a less robust growth and the looming fiscal "cliff" in 2013 could stall US economic recovery, in turn weigh down on world trade and investor confidence.

Weaker external environment and a sharp deceleration in domestic demand in response to capacity constraints and policy tightening, led to the slowdown in growth in China, India, and Brazil.

4. State of Affairs: Domestic Economy

4.1 The Philippines Faces External Challenges from a Position of Strength

- *The Philippine economy is growing despite a fragile economic environment.* Real gross domestic product (GDP) registered a 5.9% growth in the second quarter of 2012, faster than the 3.6% expansion recorded in the second quarter of 2011. On the production side, the services sector continued to drive economic growth, while growth on the expenditure side was spurred by the positive outturn in household consumption expenditures and the recovery of exports.
- *Inflation dynamics is manageable.* Year-on-year headline inflation slowed down to 3.9% in September from 3.8% in August. The resulting year-to-date average of 3.2% was also within the Government's inflation target range on 3-5% for 2012.
- *Monetary policy promotes non-inflationary growth.* The monetary authorities deemed it prudent to adopt a more accommodative policy stance to support economic growth given a benign inflation environment. The Monetary Board has reduced the policy rates by a total of 100 basis points since January 2012 to 3.5% for the overnight borrowing rate and to 5.5% for the lending rate from 4.5% and 6.5%, respectively, early this year.
- *The country maintains a favourable external payments dynamics supported by ample gross international reserves* which reached USD 81.9 billion as of end-September 2012, and sustained growth of overseas Filipino remittances at 5.3% for January-July 2012. Total external debt as a% of GDP was a 26.6%, a significant decline from a few years back when the external-debt-to-GDP ratio went as high as 60%.
- *The Philippine banking system remains sound and stable.* The banking system is characterised by: solid asset growth, improved loan and asset quality, continued good returns on equity, and strong capitalization that is above international norms.

- *Financial markets have been buoyant***,** with an upbeat equity market, and narrowing debt and emerging bond market index spreads, reflecting the improvement in economic prospects. Likewise, the exchange rate has remained broadly stable and competitive with respect to its trading partners' currencies.
- *The country's fiscal position continues to improve borne out by the good governance efforts of the Government.* The National Government's fiscal deficit stood at P71.2 billion for the first eight months, which is P112.1 billion below the P183.3 billion programmed deficit for the first to third quarters of 2012.
- *In the last year and a half, the Philippines has had successive positive ratings actions from all major credit rating agencies.*
- *The figures indeed suggest that the Philippines is pushing forward on all fronts:*
    - o Sustained economic growth driven by strong domestic demand and growing investment
    - o An effective monetary policy which has ensured price stability
    - o A strong external position backed by our large dollar reserves
    - o Prudent fiscal management which enabled the Government to keep budget deficit within target and on track with the fiscal consolidation objectives
    - o A sound banking system supported by strong prudential ratios
    - o Improved investor sentiment backed by the solid performance of the Philippine stock exchange index
    - o Growing third-party recognition with several credit rating upgrades over the past two years.

5. Sustaining the Growth Path

There are headwinds that if left unmanaged could push the economy off-track on its path to sustainable growth. Against the backdrop of global economic uncertainties, policymakers in EMEs including the Philippines, need to adopt policies that will support noninflationary growth, maintain financial stability, and remain responsive to weaker-than-expected outcomes. Refocusing structural and fiscal reform efforts toward sustained and more inclusive growth remains a priority.

The first challenge that needs to be addressed at the global level is macroeconomic imbalance. The way forward requires Asia's emerging surplus economies to gradually rely more on domestic demand as a driver of growth., whether through an accommodative monetary policy stance or through prudent fiscal spending. Such transition could be supported through structural reforms in areas such as the passage of social safety-net laws. For EMEs that rely on the strength of export commodity prices and on traditional external trade linkages, it maybe necessary to diversify the export portfolio by looking into other markets.

A second issue is managing global liquidity, as it has important implications for financial stability. The global liquidity situation has implications for capital flows. The current volatility is a concern, and the G20 initiative to support emerging economies in strengthening intermediation by developing domestic bond markets was created to combat the volatility of capital flows.

The third challenge is for policy makers in EMEs to build buffers to maintain their resilience against both external and domestic shocks. In this regard, policymakers need to focus on structural reforms, such as financial market deepening, to complement the sound macroeconomic policies in nurturing domestic sources of growth. Macro prudential policies may also need to be enhanced to help ward off the potential destabilising impact of volatile capital flows on the exchange rate and asset prices.

5.1 How Can Policies Counteract the Slowdown in EMEs and Sustain Growth?

EMEs should use the policy space available to them in addressing the downside risks to growth. More macroeconomic stimulus by advanced economies can be the solution in revising and sustaining growth. However, the available policy space may already be limited in advanced economies where interest rates are already near zero. This is in contrast with EMEs which have substantial policy space for stimulating growth in the short run with generally stronger public finances and adequately contained inflationary pressures than the advanced economies.

The weak outlook, in fact, has already led some central banks to ease their respective monetary policy setting to help support growth. Aside from the Bangko Sentral ng Pilipinas (BSP), The Reserve Bank of Australia decided to reduce its policy rate to 3.25% from 3.50% as the growth outlook for 2013 turned weaker with inflation expected to be consistent with their 2-3% inflation target. Likewise, the Bank of Korea reduced its base rate by 25 bps to 2.75% on the

back of weak economic growth combined with a low inflation forecast owing primarily to easing demand-side pressures. The Bank of Thailand also decided to reduce its policy rate by 25 bps to support domestic demand and hold off potential negative effects from external headwinds.

CUMULATIVE POLICY RATE MOVEMENTS OF SELECTED CENTRAL BANKS
In basis points

Period	Australia	Canada	China	Euro Region	India	Indonesia	Japan	Malaysia	New Zealand	Philippines	South Korea	Taiwan	Thailand	United Kingdom	United States
	Cash Target Rate (Target Rate)	Overnight Rate (Target Rate)	One-Year Lending Rate (Lending Rate)	Refinancing Rate (Lending Rate)	Repo Rate (Lending Rate)	BI Rate (Target Rate)	Uncollateralized Overnight Call Rate (Target Rate)	Overnight Policy Rate (Target Rate)	Official Cash Rate (Target Rate)	Reverse Repurchase Rate (Borrowing Rate)	Base Rate (Target Rate)	Discount Rate (Lending Rate)	One-Day Repurchase Rate (Target Rate)	Base Rate (Target Rate)	Fed Funds Rate (Target Rate)
Global Financial Crisis (Oct 08-Sep 09)	-400	-275	-189	-325	-425	-275	-40	-150	-500	-200	-325	-225	-250	-450	-175
Post Global Financial Crisis (Oct 09-Sep 11)	175	75	125	50	350	25	-10	100	25	50	125	62.5	225	0	0
Oct-11	-	-	-	-	25	-25	-	no mtg	-	-	-	no mtg	-	no mtg	no mtg
Nov-11	-25	no mtg	-	-25	no mtg	-50	-	-	no mtg	no mtg	-	no mtg	-25	-	-
Dec-11	-25	-	-	-25	-	-	-	no mtg	-	-	-	-	no mtg	-	-
Jan-12	no mtg	-	-	-	-	-	-	-	-	-25	-	no mtg	-25	-	-
Feb-12	-	no mtg	-	-	no mtg	-25	-	no mtg	no mtg	no mtg	-	no mtg	no mtg	-	no mtg
Mar-12	-	-	-	-	-	no mtg	-	-	-	-25	-	-	-	-	-
Apr-12	-	-	-	-	-50	-	-	no mtg	-	-	-	no mtg	no mtg	-	-
May-12	-50	no mtg	-	-	no mtg	-	-	-	no mtg	no mtg	-	no mtg	-	-	no mtg
Jun-12	-25	-	-25	-	-	-	-	no mtg	-	-	-	-	-	-	-
Jul-12	-	-	-31	-25	-	-	-	-	-	-25	-25	no mtg	-	-	no mtg
Aug-12	-	no mtg	-	-	no mtg	-	-	no mtg	no mtg	no mtg	-	no mtg	no mtg	-	-
Sep-12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Oct-12	-25	-	-	-	to meet	-	-	no mtg	-	-25	-25	no mtg	-25	-	-
European Debt Crisis (Oct 11-Oct 12)	-150	0	-56	-75	-25	-100	0	0	0	-100	-50	0	-75	0	0
Net Change	25	75	69	-25	325	-75	-10	100	25	-50	75	62.5	150	0	0
Current Policy Rate	3.25	1.00	6.00	0.75	8.00	5.75	0.0-0.1	3.00	2.50	3.50	2.75	1.88	2.75	0.50	0.0-0.25

Notes:
Target rate typically refers to the midpoint of the corridor, wherein the upper end is the rate at which the central bank lends.
Source: Bloomberg and official central bank websites

Moreover, while advanced economies continue to prioritize fiscal reforms, EMEs have greater fiscal space to support domestic demand over the near term.

5.2 Over the Medium Term

- EMEs should prepare for fiscal challenges associated with population aging and growing demand for social welfare.
- As to financial regulatory reforms, the BASEL III framework will be able to set a platform for a safer financial environment conducive for sustainable growth,
- Increased financial integration by EMEs can help improve resource allocation within and across countries and offer greater liquidity and risk hedging.

- Improved oversight of capital inflows and macro-prudential regulations will help to address the danger of global liquidity surges, as well as, the risk of asset price bubbles.
- Structural reforms that promote domestic demand will help in diversifying sources of growth and will also make growth sustainable for EMEs. Empirical evidence indicates that economic growth in EMEs is not related to the size of the trade surplus, or even to the volume of exports, but rather, to the output of industrial products. And as long as domestic demand is sufficient to accommodate it, EMEs can attain sustainable growth by expanding their industrial economic activities.
- In the near term, the sensible approach is to continue to focus on strengthening domestic demand and building up buffers against external shocks. It is no small comfort that the Philippine economy has remained resilient thus far against the continuing headwinds. The priority for economic managers, therefore, is to continue building up these buffers and ensure that appropriate policy measures are in place to address remaining potential threats to the economy.

6. Policy Responses: The Philippine Case

BSP responded to macroeconomic risks with conventional policy, i.e., interest rates accompanied by operational adjustments.

Recently, with the assessment of a benign inflation outlook and weaker global growth prospects, the BSP has reduced its policy interest rates by four (4) times since January 2012, bringing the cumulative reduction in policy rates to 100 bps. The Monetary Board believed that a reduction in policy rates can serve as a preemptive move against the risk associated with the global slowdown. While the Philippine economic can rely on the resilience of domestic spending to sustain growth, additional policy support would serve as buffer against strong global headwinds.

At the same time, the BSP implemented the operational adjustments in the reserve requirement (RR) framework effective 6 April 2012 to simplify and strengthen the RR policy as a liquidity management tool. This was complemented by a 2-percentage point increase in reserve requirements to ensure a neutral impact on domestic liquidity conditions.

The measures adopted by the BSP have supported sustained credit growth. Bank credit has been growing steadily at double-digit growth rates since January

2011. Meanwhile, the steady growth in domestic liquidity indicates that overall liquidity conditions continue to support the economy's growth requirements.

Banks have also continued to pass on the reduction in the policy rates through lower lending rates. Average bank lending rates as of August is at 5.4%, lower by 80 bps compared to the December 2011 average lending rate of 6.2%, shortly before the BSP started easing policy rates in January 2012.

The BSP continues to employ a menu of instruments in managing capital flows. This includes:

- Exchange rate flexibility;
- Reserve accumulation and associated liquidity management;
- Financial sector reforms to deepen financial markets;
- Macro prudential measures to strengthen the health of the banking system;
- Reform of the foreign exchange regulatory framework; and
- Adjustments in monetary policy, when necessary.

Macro prudential regulations have been implemented to guard against unwarranted expansion of credit to the private sector including the property market:

- The statutory limit of 20% on the share of real estate loans to banks' total loan portfolio;
- Maximum loan-to-value ratios for real estate collateral;
- Statutory limits to single entities or large borrowers; and
- Introduced a new set of guidelines for the expanded report on real estate exposures of universal and commercial banks as well as thrift banks.

To help guard against speculative capital inflows, the BSP implemented the following:

- Raised the associated capital charges for market risk on banks' net open positions on non-deliverable forwards (NDFs);
- Disallowed funds from foreign sources from being placed in the BSP's Special Deposit Account (SDA) Facility, and thereby avoiding the situation

where the BSP's open market operations (OMO) instrument becomes the recipient of capital inflows;

- The spread of the SDA rates over the RRP rate was also reduced to fine-tune the pricing of the product consistent with the decline in global interest rates.

The BSP has put in place measures to assist the export industry, including those intended to increase access by the export sector to financing. These include:

- The Peso Rediscount Facility as well as the Exporters Dollar and Yen Rediscount Facility to allow banks to rediscount their existing loans;
- Contribution of ₱ 50 to the Export Promotion Fund of the Export Development Council (EDC), which aims to provide supplemental financing for the promotion and development of Philippine exports;
- Establishment of the Credit Surety Funds (CSFs) which aims to increase the credit worthiness of small exporters (i.e., micro, small and medium enterprises (MSMEs) which are experiencing difficulty in obtaining loans from banks[2]; and
- Promotion of the use of hedging products that are being offered by banks to reduce foreign exchange risks, particularly through the foreign exchange insurance and forward foreign exchange rate protection products.

As a necessary complement to sound macroeconomic and financial stability policies, specific financial sector reforms are being pursued by the BSP:

- Enhancement of supervision to maintain sufficient capacities and tools to measure, detect and react to these emerging risks;
- Support the development of debt securities in the region to enable better market access for SMEs and to enhance it for larger-sized firms; and
- Further financial inclusion of the household sector could be improved by promoting financial education at the household level.

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2. The CSF Programme is a credit enhancement scheme by the BSP which aims to increase the credit worthiness of micro, small and medium enterprise (MSMEs) which are experiencing difficulty in obtaining loans from banks for the expansion of their business due to lack of acceptable collaterals, lack of credit knowledge and lack of credit track records. Under the programme, a Fund shall be created at the provincial and city level that, thereafter, will be used to secure the loans of MSMEs from banks, in lieu of the usual collaterals required by banks.

Finally, the Philippine Development Plan for 2011-2016, adopts a framework of inclusive growth, defined as rapid and sustainable economic growth that generates mass employment and reduces poverty. To achieve inclusive growth, government will focus on four critical strategies:

- Ensuring a stable macro-economic environment and fair competition;
- Investing massively in infrastructure;
- Developing our young population to ensure that our labor force is competent, well-trained and globally competitive; and
- Investing in rice and food self-sufficiency.