

PACIFIC ECONOMIC OUTLOOK

Structure Task Force

Macroeconomic Management under Debt Workouts in the Pacific Region

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They refer only to the economies associated with PECC Member Committees.

PREFACE

This report on "Macroeconomic Management under Debt Workouts in the Pacific Region" is the 10th report in a series of studies conducted by the Pacific Economic Outlook (PEO) Structure Task Force. PEO/Structure is one of the task forces under the Pacific Economic Cooperation Council (PECC) and deals with longer-term structural issues of macroeconomics in the Pacific region.

Under the financial globalization, we have witnessed more frequent financial crises all over the world than before. The large-scale bankruptcies of S&L institutions in the United States in the late 1980s, the system-wide downward spiral due to die-hard NPLs (Non Performing Loans) in Japan since 1990 up to now, the cascading defaults of nonfinancial corporations, commercial banks and nonbank financial institutions after the 1997 economic crisis in East Asia, the defaults of sovereign debts in some emerging markets, to name a few. Debt workouts, thus, have become serious policy issues throughout the region.

Debt workouts not only become policy issues themselves, but constrain macroeconomic management in various ways. Deterioration in balance sheets can be found in a variety of levels and sectors, i.e. countries, governments, banks, nonfinancial corporations and households. The deterioration in one sector can spill over to others and eventually snowball to economy-wide. It can constrain monetary policy and/or exchange rate adjustment. Or it can narrow a room for counter-cyclical fiscal policy.

These are actually what happened in the Pacific region in the past decades. What can we learn from these painful experiences? And how can we get better prepared for the potential future troubles? We would like to focus on how these efforts to improve balance sheets of financial as well as nonfinancial sectors constrain macroeconomic management such as monetary and fiscal policies, and how we can overcome these constraints and achieve macroeconomic stability.

We want to discuss experiences in advanced economies such as how we have coped with bubble bursts or asset market crash through a carefully coordinated macroeconomic and/or structural policy mix. Even low inflation becomes a headache under debt deflation in advanced as well as some emerging markets. Inflation targeting could be interpreted as a search for a new nominal anchor replacing pegged exchange rates in East Asia after the Crisis. The recovery process in East Asia looks similar across the economies, crisis-hit or not, as characterized by active fiscal management and cautious but relatively loose monetary policy.

We focus not only on debt workouts, but on the interaction between sectoral balance-sheet developments and macroeconomic management. Thus we are concerned with more generally busts in asset markets and their impact on macromanagement. Even those economies who have not experienced systemic debt-workout problems in the recent past, have had booms and busts in asset

¹ For the previous studies published, see the past issues, p.52

markets and coped with the resulting economic downturns.

This report is a summary of studies conducted by the PEO/Structure Task Force under the coordination of Dr. Akira Kohsaka.² The first part of the report provides an overview, prepared by Dr. Kohsaka, of macroeconomic management issues under debt workouts in the Pacific region as a whole. The second part consists of executive summaries of individual countries/regions submitted by specialists from each PECC member economy.

The PEO/Structure Task Force held two International Specialists Meetings in March 2004 and September 2004 in Osaka, Japan. These meetings were hosted by the Japan Committee for Pacific Economic Outlook which has been housed in and staffed by the Kansai Institute for Social and Economic Research (KISER).³ The Committee has been sponsored by the Ministry of Foreign Affairs of Japan and also by the regional business communities, the relevant organizations of which are the Pacific Resource Exchange Center (PREX) and the Kansai Economic Federation (KEF)

Ambassador Yoshihisa Ara, Chairman of Japan National Committee for PECC (JANCPEC), serves as Chairman of the Japan Committee for Pacific Economic Outlook. Mr. Hidehiko Sugimoto, Deputy Executive Director and Ms. Machiko Fujita, Director coordinated the management of the PEO/Structure Task Force. Dr. Janis Kea supported the PEO/Structure Task Force by editing and checking the papers.

The PEO/Structure Task Force presents its reports to the meetings of PECC and the Asia Pacific Economic Cooperation (APEC), forums of government officials and individuals in business, government and academic sectors who are interested in economic issues of the Asia-Pacific region.

For more information on the PEO/Structure Task Force, contact the secretariat at the Japan Committee for Pacific Economic Outlook.

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³ The Kansai Institute for Social and Economic Research (KISER) is a nonprofit organization in Kansai (the region centered in Osaka, Kobe and Kyoto) that has its objectives in contributing to the development of the national and regional economies through academic advances. KISER promotes research projects under the cooperation of academia and local business community with the aid of governmental support. For more details, see the information provided in the bottom part of this volume.

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OVERVIEW:

MACROECONOMIC MANAGEMENT UNDER DEBT WORKOUTS IN THE PACIFIC REGION

BY AKIRA KOHSAKA*

With financial globalization, we have witnessed more frequent financial crises all over the world. Examples include the large-scale bankruptcies of S&L institutions in the United States in the late 1980s; the systemwide downward spiral due to diehard NPLs (nonperforming loans) in Japan since 1990 to the present; the cascading defaults of nonfinancial corporations, commercial banks and nonbank financial institutions after the 1997 economic crisis in East Asia; and the default of sovereign debts in some emerging markets, to name a few. Debt workouts, thus, have become serious policy issues throughout the region.

Debt workouts not only have become policy issues in and of themselves, but they constrain macroeconomic management in various ways. Deterioration in balance sheets can be found at a variety of levels and in various sectors, i.e., across countries, governments, banks, nonfinancial corporations and households. Moreover, the deterioration in one sector can spill over to others and eventually snowball to affect the economy overall. It can constrain monetary policy and/or exchange rate adjustment, as well as reduce elbow room for countercyclical fiscal policy.

These have, in fact, occurred in the Pacific region in the past decades. What can we learn from these painful experiences? How can we be better prepared for potential future troubles? This report focuses on how these efforts to improve balance sheets in financial as well as nonfinancial sectors have affected macroeconomic management, in

particular how it has constrained monetary and fiscal policies. Ideas for how we can overcome these constraints and achieve macroeconomic stability are offered.

In this report, we discuss the experiences of the PECC economies in terms of how they have coped with bubble bursts or an asset market crash through a carefully coordinated macroeconomic and/or structural policy mix. Even low inflation has become a headache under debt deflation in advanced as well as some emerging markets. Inflation targeting could be interpreted as a search for a new nominal anchor replacing pegged exchange rates in East Asia after the crisis. The recovery process in East Asia looks similar across the economies, crisis-hit or not, as characterized by active fiscal management and cautious but relatively loose monetary policy.

We focus not only on debt workouts but on the interaction between sectoral balance sheet developments and macroeconomic management. Thus we are more generally concerned with busts in asset markets and their impact on macro-management. Even those economies that have not experienced systemic debt workout problems in the recent past have had booms and busts in asset markets, and have had to cope with the resulting economic downturns.

The Asian crisis of 1997 has aroused the need for a new economic policy framework for the causes, propagation and solution of financial as well as

^{*} Coordinator, PEO/Structure Task Force

currency crises. In particular, Asian experience showed that the private sector—including corporate firms, households and financial institutions—rather than fiscal imbalances could be the core of a crisis. The problems have been more or less microeconomic in nature and include inappropriate supervision and regulation of financial systems, dubious quality of lending, moral hazard due to explicit or implicit government guarantees. and fixed exchange rates leading to short-term external debt in foreign currencies. The financial structures—i.e., the composition and size of the assets and liabilities of financial balance sheets—of the economies, both developed and developing, have been a source of business cycles as well as booms and busts including economic crises.

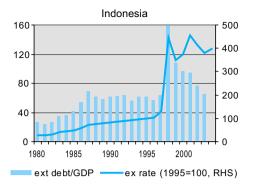
This overview focuses on balance sheet adjustment processes across the recent boom-bust cycles in the Pacific region. It attempts to summarize and share experiences and finally to draw some policy implications for the future. Particular attention is paid to the interaction between balance sheet adjustments and macroeconomic variables along with structural changes in sectoral balance sheets and policy environments.

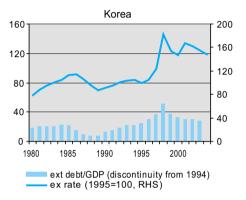
1. ASSET PRICE BUSTS AND MACROECONOMIC ADJUSTMENTS

We begin with a review of the process of asset price booms and busts, and their interactions with macroeconomic adjustments in the case of the 1997 Asian economic crisis in emerging markets and the early 1990s in developed economies in the Pacific region. Within a country, asset price booms and busts are often associated with one another because one asset price boom raises wealth and then the demand for another through the wealth effect. Furthermore, due to financial globalization, equity prices increasingly tend to move in a synchronized manner. These days, even property prices show some international synchronization perhaps because of increasing business cycle synchronization across countries.

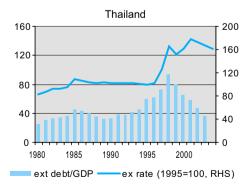
Asset price busts have often been accompanied by economic activity slowdowns and financial instability. In fact, equities and real estate properties generally make up a significant share of household assets, while they each relate to investment incentives of corporate firms through capital costs and collateral for loans. Moreover, exchange rates are

Figure 1. Exchange Rates and External Debt









sometimes referred to as an asset price whose volatility could seriously affect both public and private sector balance sheets, especially if foreign exchange exposure and/or currency mismatch is large and unhedged.

In 1997, the emerging market economies in the Pacific region suffered from severe currency and financial crises. Before the Thai baht came under speculative currency attack, bubble bursts in the property market had deteriorated the balance sheets of the corporate and financial sectors in Thailand. Subsequently, capital flow reversals spread rapidly throughout East Asia. The collapse of their virtual fixed exchange rate regimes propagated shocks through various sectors of these economies through suddenly ballooned external debt (Figure 1). In subsequent months, companies went bankrupt, individuals lost jobs, and the number of nonperforming loans expanded in financial institutions. Relatively healthy fiscal balances turned into deficit partly because of bailouts of financial institutions and partly because of fiscal expansion to stimulate domestic demand.

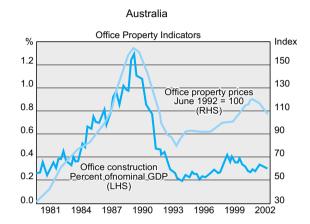
The experiences of these economies clearly show how balance sheet problems in one sector can spill over into other sectors. Initial exchange rate depreciation led to balance sheet deterioration of the unhedged corporate sector, which had difficulty in debt servicing; this resulted in rising nonperforming loans of financial institutions or the financial institutions themselves suffered directly from their unhedged exposure of foreign liabilities. To minimize these impacts on their capital bases, banks curtailed overall lending, choking off credit to otherwise solvent firms. The public sector had no choice but to debt finance the adjustment burden to avoid a total breakdown of the economy.

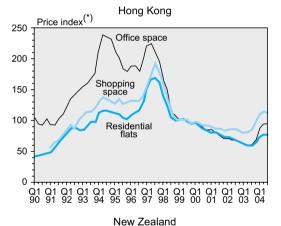
The impact of the 1997 crisis on Hong Kong can be said to be less serious than on the other East Asian emerging market economies. In the case of Hong Kong, the corporate sector was not highly leveraged, the financial sector was prudent and well-provisioned, and the entire economy was a net international creditor with ample foreign exchange reserves. Nevertheless, the crisis hit Hong Kong's property market very hard (Figure 2). The property price bust was so severe that it dragged the economy into a serious deflationary spiral. A

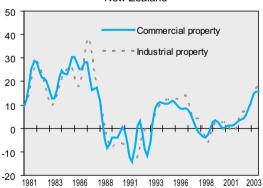
heavy reliance of government revenue on the property market made matters worse.

There is always the risk of a systemic financial crisis, when distressed financial institutions affect the real economy because they are the core of the financial and payment systems in both developed

Figure 2. Property Price Indices







Source: Makin(2005), Mao(2005) and Walton(2005).

or developing economies. Indeed, in the early 1990s, the developed PECC economies—namely, Australia, Japan, New Zealand and the United States—experienced financial distress that originated from property market booms and busts (See Figure 2).

In the early 1990s, asset market booms turned to busts which, in turn, generated a few distressed financial institutions that contagiously affected other financial institutions. This transmission mechanism appears traditional(IMF(2003)). Under the financial globalization, however, financial disturbances are now more likely to disseminate through a larger number of channels including the money, debt, equity, derivative and foreign exchange markets. The 1997 Asian economic crisis has taught us that it has become meaningless to determine which factors caused the crisis, domestic or international.

2. BALANCE SHEET DEVELOPMENTS DURING BOOMS AND BUSTS

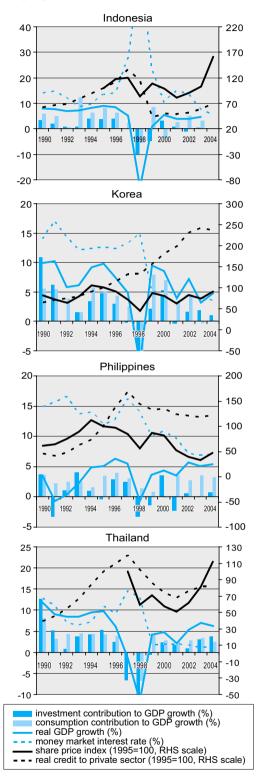
In this section, we observe the balance sheet developments of the corporate, household, financial and government sectors, respectively, during the booms and busts through the two episodes. Because of the different stages of development of the financial system, we see similar but different responses of each sector as well as their resulting macroeconomic behaviors.

2.1 Corporate Sector

When the Asian crisis hit, the balance sheet of corporate sectors in Indonesia, Korea, the Philippines and Thailand were already fragile. First, because of relatively low borrowing costs from abroad at that time, a number of firms actively incurred foreign currency debt. Moreover, they borrowed unhedged with the (erroneous) perception that there was no currency risk under the virtual fixed exchange rates that had prevailed in past years. Second, the corporate sector expanded their balance sheets through debt finance to a great extent along with asset market booms before the crisis. Pre-crisis debt-to-equity ratios were commonly at a historically high level. This high leverage and excessive foreign exchange exposure were common features among the economies.

The crisis hit the corporate sector through both stocks and flows. With regard to stocks, the bal-

Figure 3.
Macroeconomic Developments:
Emerging Asia



ance sheet effect affected their solvency due to a sudden increase in liabilities. With regard to flows, both the tight monetary policy and sharp declines in domestic demand had adverse effects due to the high interest rates, credit crunch and lowering of profitability. As a consequence, the larger the pre-crisis expansion, the larger was the decline in private fixed investment in these economies (Figure 3).

By 1999, the balance sheet deterioration of the corporate sector had stabilized. The indicators for corporate balance sheets, such as liquidity and interest coverage ratios, began to improve, reflecting regained profitability. The debt-to-equity ratio also declined due to a favorable stock market and improved earnings.

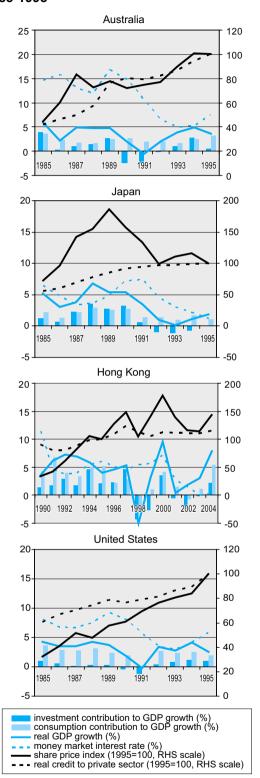
Suspended financial intermediation led the corporate sector to pursue an alternative financing route including the capital market and other nonbank sources. Although the alternative sources will not completely substitute for financial intermediation, it will no doubt help fulfill the financing gap and may lead to the development of alternative financing. In contrast with the financial sector, however, the corporate sector in the crisis-hit economies remains exposed to currency risk because of their large external debt.

By the time the bubble in commercial property markets had burst, corporate sector debt levels had soared to a historical high in the early 1990s in Australia, Japan and the United States. Likewise in post-crisis emerging markets, banks had turned very conservative and credit crunches occurred. The corporate sector was forced to adjust to this through debt reduction in one way or another, cutting down private fixed investment (Figure 4).

2.2 Household Sector

During the decade before the crisis, household balance sheets expanded vigorously in Indonesia, Korea, Malaysia and Thailand because of persistent macroeconomic growth and structural financial deregulation. Higher disposable income and asset price booms enabled the household sector to enjoy the expansion. Households decreased saving rates and increased their level of debt.

Figure 4.
Macroeconomic Developments, 1985-1995



The balance sheet effect of the crisis on the household sector in these economies, however, was relatively small compared to the corporate sector. This is because households did not borrow from abroad and their exposure to asset price volatility was relatively limited. Nevertheless, the crisis brought about higher unemployment and lower disposable income in the sector, and the asset price busts negatively affected the balance sheets of households to some extent. Moreover, higher interest rates increased their debt service burden, resulting in sharp declines in household consumption in the following year (See Figure 3).

In the early 1990s, households' exposure to asset price volatilities was limited relative to the later periods in the developed PECC economies. Of course, negative impacts of property price busts and resulting real economy slowdowns helped to decrease private consumption through balance sheet and income effects. However, the decreases were modest in Australia and the United States.

Generally, the larger are the assets (equity or property) relative to income, the larger their wealth effects on private consumption are likely to be. Likewise, the larger the share of properties in assets, the larger their wealth effect on consumption. In fact, property price busts have larger wealth effects on consumption than do equity price busts, which is what occurred in Japan in 1990 and Hong Kong in 1998.

2.3 Financial Sector

The typical interplay between the property and financial sectors and the rest of the economy can be seen in the case of Thailand, the point of origin of the crisis. The property boom in the mid-1990s was fueled by sustained economic growth and financial liberalization. The property sector had been heavily dependent on the borrowing from the financial sector. Furthermore, because of financial liberalization including the establishment of BIBF, part of the property sector could even issue bonds abroad under relatively low international interest rates. As a result, property prices rose quickly and this was the basis for the property sector to obtain new loans. In this way, banks and other financial institutions became deeply entangled with developments in the property sector.

Along with the property boom, exposures of the financial sector to the property sector snowballed in a self-fulfilling way through the practice of collateral-base lending using properties as collateral. Once the euphoria had evaporated, however, the financial sector realized massive fallout from the bubble burst and discovered their loans were very underprovisioned. As a result, the financial sector found their capital base to be so impaired that they desperately needed massive recapitalization to remain solvent. This story sounds very familiar to developed economies including Japan. One difference in the case of Thailand is that we must add the currency mismatch on top of the already disasterous situation.

In fact, whether or not the crisis originated from property price bubbles, once the reversal of foreign capital flows occurred in the highly exposed, highly leveraged economies (such as Indonesia, Korea, Malaysia, the Philippines and Thailand), there resulted large-scale currency depreciation which led to foreign exchange risks. This, in turn, made debt service extremely difficult and it snowballed the problem of NPLs in the financial sector. Financial institutions tried hard to survive, collecting as much old assets as possible and squeezing provision of new credits, while the demand for credits declined because of significant slowdown in economic activities.

Banking distress usually results from careless assessment of credit risk based on inflated asset values. In this respect, financial deregulation in the 1980s in developed economies and in the 1990s in the developing countries played a significant role. This financial deregulation created a climate of intense competition where financial institutions were inclined to expand their balance sheets rapidly. Subsequently, the usual interplay between property and credit markets realized a self-fulfilling process of boom and bust, which occurred in Australia, Japan, New Zealand and the United States in the early 1990s. Property price busts were shown to affect the financial sector more adversely than equity price busts (IMF 2003). Facing the increase of NPLs and deteriorating balance sheets, the financial sector restrained the overall supply of credit that, in turn, led to recession in the real sector.

2.4 Government Sector

Generally, before the crisis, the levels of public debt in the crisis-hit economies were modest relative to economies in other regions. As the crisis unfolded, the governments had to play the role of lender of last resort to accommodate the significant losses in the financial sector; as a result, public debt began to accumulate sharply. Direct fiscal costs include the costs needed to close some financial institutions and to intervene in almost insolvent ones, the injection of public funds into viable ones and management of nonperforming loans.2 Furthermore, facing the abrupt slowdown of economic activities, the governments were forced to run fiscal deficits to stimulate domestic demand, which contributed to the debt buildup toward the end of the 1990s (Figure 5).

Even without capital account openness, China turned out to be susceptible to the Asian crisis under the financial globalization trend. Once its apparent ever-increasing growth slowed, deflationary pressures put the business sector into debt overhang and the financial sectors became ridden with NPLs. With the lowering of interest rates, the government began fiscal expansion through bond finance and to support weak domestic demand (Figure 5).

3. MACROECONOMIC MANAGEMENT DURING THE BALANCE SHEET ADJUSTMENT

In this section, we review macroeconomic policy management during the balance sheet adjustments in the 1997 Asian crisis.

3.1 Monetary Policy

Because of the trilemma of macroeconomic policies,³ the monetary authorities (particularly those in Indonesia, Korea, Malaysia and Thailand) had difficulty in maintaining their own monetary targets under capital mobility and controlled exchange rates that were set before the crisis. Especially in the first half of the 1990s, a huge amount of foreign capital inflows to these economies brought along with and was brought along by vigorous demand and output growth. As a consequence, the capital account surplus outweighed the current account deficit, while the latter was relatively modest because of ample domestic saving.

While the monetary authorities barely sterilized inflationary impacts of the accumulation of foreign exchange reserves, monetary tightening lured external borrowing and further deteriorated corporate finance structures and bank portfolios. Finally, once monetary policy put an end to the boom, asset price busts occurred and capital account rever-

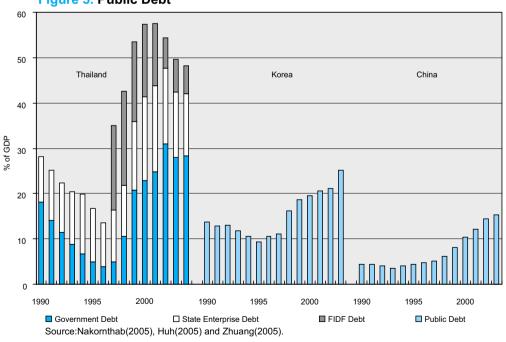


Figure 5. Public Debt

sals followed, leading to a currency crisis.

With exchange rates floating or forced depreciation cascading across the crisis-hit emerging markets contagiously, the balance sheets of the corporate sector and the financial sector were significantly damaged. This, in turn, narrowed the effectiveness of monetary policy and generated a new policy dilemma.

While high interest rates were expected to stabilize exchange rates, at the same time, they placed an additional burden on nonfinancial firms and financial institutions. What matters here is whether the effect of higher interest rates on capital flows outweighs the cost of (hopefully) temporary output losses. In fact, despite higher interest rates, exchange rates kept depreciating until the end of 1997; this depreciation contributed to a continued deterioration of balance sheets of the private sector and the probability of bankruptcy.

One important repercussion on monetary policy of the balance sheet adjustment process immediately after the crisis can be found in the monetary transmission mechanism. Developing economies are generally dependent on bank finance or financial intermediation rather than the capital market for various reasons. In these bank-dependent economies, the credit channel has played a more significant role in the transmission of monetary policy. Of course, even in developed economies such as the OECD countries, the credit channel has been important; but in these developed countries, there is another important channel, i.e., the interest rate channel. The point is, to the extent that the credit channel is important, negative impacts on the credit channel had more serious as well as long-lasting damages on the effectiveness of monetary policy.

3.2 Fiscal Policy

Except for the Philippines, fiscal policy in the crisis-hit economies was relatively less constrained than monetary policy before the crisis. Government budgets were generally in balance and the levels of government debt were relatively modest compared to those of other emerging market economies in other regions.

The crisis significantly changed this situation,

however, and the role of fiscal policy was constrained at a time when the fiscal policy was needed most to boost or compensate for weak domestic demand. The new constraints on fiscal policy came from two fronts. One is contingent liabilities arising from blanket guarantees, and the other is a sudden accumulation of public debt due to the bailouts, both for the financial sector. Nevertheless, the fiscal expansion undoubtedly helped to alleviate the negative impact of the sharp downturn of domestic demand in the crisis-hit and other Asian economies, and it was the pre-crisis health of fiscal balances in these economies that enabled them to do so.

3.3 Debt Restructuring

Debt restructuring became an indispensable precondition for restoring both the corporate and financial sectors. Without reconstructing the balance sheets of these sectors, the monetary policy transmission would not work, and hence macroeconomic management would not either. Disposition of assets of closed financial institutions, facilitation of debt restructuring negotiation in the private sector, and management of transfer of NPLs from financial institutions and asset management agencies helped reduce NPL ratios.

The speed and scope of establishing the central asset resolution agencies for commercial banks were varied across the crisis-hit economies; it was relatively quick in Korea and Malaysia, but slow in Thailand. In Thailand, the government initially preferred a decentralized market-driven approach to NPL resolution, which significantly retarded the pace of financial restructuring. Note, however, that while the improvement of the balance sheets of both the corporate and financial sectors were necessary for bank credits and corporate investment to resume, they are not sufficient conditions for economic recovery. Full-fledged recovery requires resolution of prior over-investment and its resulting excess capacities.

4. ALTERNATIVE MACROECONOMIC POLICY FRAMEWORK

Once we recognize the trilemma of macroeconomic policies, some nominal anchor must be chosen for macroeconomic stabilization insofar as we allow for capital mobility in a small open economy. One such alternative to a fixed exchange rate regime is inflation targeting, which has been adopted in Thailand since 2000.

Not only in pursuit for a nominal anchor, inflation targeting has recently become an important macroeconomic policy framework because low and stable inflation in and of itself can be desirable and indispensable for financial stability. One reason is that unexpected inflation arbitrarily redistributes wealth between debtors and creditors, resulting in ex-post resource misallocation and potential social waste.

Based on the empirical fact that higher inflation is associated with higher volatility in inflation, inflation targeting is supposed to establish the credibility of monetary policy among forward-looking agents. So far, there is some evidence that shows convergence between ex-ante and ex-post inflation and actual inflation has appeared to be maintained within the predetermined narrow bands. It is noteworthy, however, that, in considering balance sheet effects seriously, we may need a broader perspective for macroeconomic management than inflation targeting.

5. BALANCE SHEET DEVELOPMENTS IN THE POST-CRISIS PERIOD

Restructuring after the 1997 Asian crisis is not yet complete. Nonetheless, initial adjustments ap-

peared to be over by the end of 1999 in Korea, Malaysia and Thailand, and a bit later in Indonesia. In this section, we will trace the balance sheet developments after the initial adjustments, namely, in the post-crisis period.

In the crisis-hit economies, the crisis brought about significant changes in banks' balance sheets. In terms of the sources of funds, they reduced the share of foreign currency debt, particularly of short-term debt, which contributed to a lengthening of the maturity structure of liabilities. In terms of the uses of funds, they reduced credit to the private sector significantly, substituting for foreign assets and government securities (flight to quality).

Owing to the overall restructuring efforts, the financial systems in the crisis-hit economies are regaining their health and appear to be more than adequately provisioned for potential bankruptcy risks. NPL ratios have shown a steady trend of improvement, though the process is not yet complete (Figure 6). Around 2000, the financial sector began to expand its share of lending to the household sector, not only for housing, but for general loans, reflecting both demand and supply factors and financial deregulation (Korea, Malaysia and

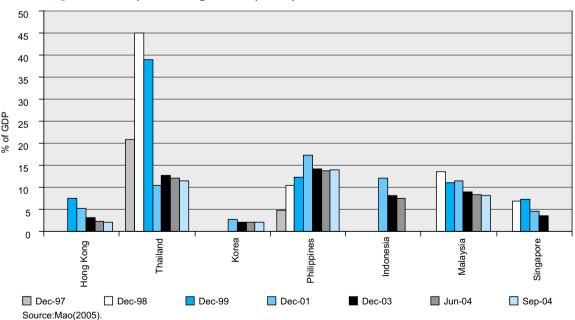


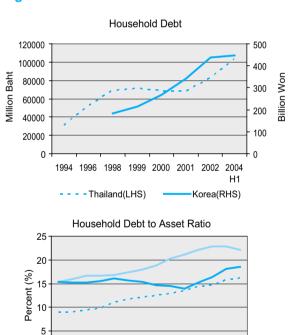
Figure 6. Nonperforming Loans (NPLs)

Thailand).

The balance sheet deterioration of the corporate sector was stabilized by 1999 and the indicators for corporate balance sheets such as liquidity and interest coverage ratios have started to improve, reflecting regained profitability. The debt-to-equity ratio has also declined due to the favorable stock market and improved earnings.

Suspended financial intermediation led the corporate sector to pursue an alternative financing route such as capital market and other nonbank sources (Korea and Thailand). Although these alternative sources will not completely substitute for financial intermediation, it will help to fill the financing gap and may lead to the development of alternative financing. In contrast with the financial sector, however, the corporate sector in the crisis-hit economies remains exposed to currency risk because of their remaining large external debt.

Figure 7. Household Debt



Source:Nakornthab(2005), Huh(2005), Walton(2005), Makin(2005) and Nagai(2005).

2000

1998

2002

US

1992

New Zealand

1994

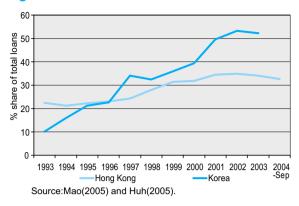
The household sector was the first sector to recover from the crisis and has been the main driver of the recovery in the crisis-hit economies. It has expanded its balance sheet, particularly by increasing debt. Indeed household debt has increased even relative to disposable income (Figure 7). This new trend can be explained by increased income and consumer confidence, low interest rates, the shift of loan priorities of the financial sector, and financial deregulation policies. Looking at Korea's consumer debt problem in 2003, some regulatory measures will be required for the stability of the financial system.

In the case of China, corporate sector finance relies almost solely on bank loans, because the capital market is still at an infant stage. While the household saving rate is incredibly high, the household sector holds its savings mostly in bank deposits. The financial sector has recently increased the share of household lending. NPLs in the financial sector are mostly referred to the public sector, including provincial governments. Accordingly, debt restructuring is likely to constrain monetary as well as fiscal policies. Private housing investment and mortgage loans have been allowed since 1997. Since the property market is under the realm of provincial governments, an appropriate regulatory framework may be needed for orderly property developments.

Along with the trend of financial deregulation, we have witnessed some structural changes in debt structures of the corporate and household sectors throughout the Pacific region. First, the corporate sector has begun to rely more on internal funds and market-based external finance than on loans. Second, the household sector has increased its debt, mainly for housing investment, in its balance sheet. Parallel to this, financial institutions have shifted their provisions of credit from the corporate to the household sector (Figure 8).

In the case of Australia, lending to the corporate sector has become less than one-half of the total credit issued by financial institutions, with the remainder going to households. The corporate sector has been profitable and its levels of debt and debt service have been held low. In contrast, the household sector has increased its ratio of debt to disposable income to a significant degree, partly

Figure 8. Loans to Households



reflecting sustained increases in residential property prices. It seems that a potential credit risk has shifted from the corporate to the household sector, and that the financial sector should be ready to cope with the risk.

Reliance of the corporate sector on bank lending has continued to decline throughout the 1990s in the United States. The corporate sector expanded its balance sheet and leverage more through the capital market. This leads us to the next stage of balance sheet effects when we face the 2000 IT bust.

6. THE 2000 IT BUST

In 2000, when the IT bubble burst, another round of boom and bust cycles had been expected in the United States and other developed economies. Although the recent busts in equity price indices were similar to earlier episodes in terms of magnitude, length, and cross-country synchronization of the price declines, IMF (2003) suggests that the macroeconomic and financial developments differ from the past experiences of OECD economies, specifically with respect to the following three points. First, the decline in output growth began earlier and was larger than before, reflecting sharper falls in fixed investment. Second, the growth of private consumption was stronger than before, reflecting robust housing prices. Third, short-term real interest rates declined faster and by a larger amount in the United States than in previous cases.

In the case of the Pacific region, we can see visible synchronized slowdowns in equity price and private investment in Hong Kong, Japan, Malaysia and Singapore, and slight negative impacts in Australia, Korea, New Zealand and the Philippines. Although equity prices showed some setback, we saw modest negative real impacts on private investment in China, Indonesia and Thailand (See Figure 3 and Figure 9).

In terms of the interplay between the asset market and macroeconomic developments, the 2000 IT bubble burst appears to share some common features with our previous episodes of asset market busts in the 1990s. First, debt accumulation and debt restructuring in the corporate sector played a major role. Second, increasing NPLs and bond defaults shook people's confidence in the overall financial system, which in turn affected the real economy.

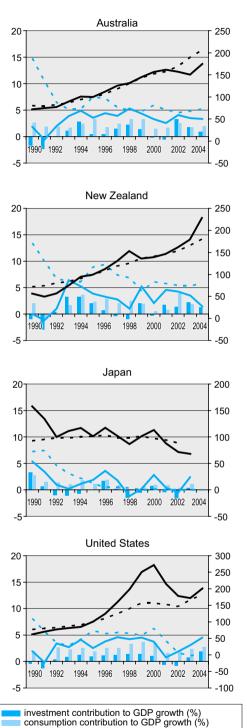
There are differences, however, reflecting structural changes in the financial system observed during the 1990s. These differences could have important implications for macroeconomic management for the future.

First, in the IT bubble burst, equity and other financial asset prices played a central role, reflecting the heavier reliance of the corporate sector on the capital market rather than on the financial sector. In fact, the magnitude and coverage of equity price adjustments were unprecedented, especially in the United States. Property prices, however, were not greatly affected. Negative wealth effects on the household sector were limited to that of equity price busts.

Second, the impact of the IT bust influenced balance sheets in a wider range of sectors than in the past. This is because financial liberalization and development had enabled a variety of market participants to expand their exposure to market-based financial assets and liabilities. In other words, in contrast to the early 1990s, risks were not solely concentrated in the financial sector. Rather, confidence issues have now shifted to the financial and capital market as a whole.

As a result, third, the damage made on the balance sheet of the financial sector was limited relative to the early 1990s so that the resulting credit crunch as well as its effect on the real sector was limited as well. The resulting real economic slowdowns,

Figure 9.
Macroeconomic Developments:
Developed Economies, 1990-



especially in private investment, did not come from a credit crunch by the financial sector as it did in the early 1990s when banks tried to minimize capital consumption through preemptive credit squeeze; instead, in the IT bust, banks remained profitable and robust.

7. MACROECONOMIC POLICY IMPLICATIONS FOR THE FUTURE

Now we can answer why, particularly in the United States, the negative impact of the IT bubble burst on the real economy as well as the financial system have thus far appeared to be limited, while its magnitude was large. Although one may say that the adjustment is not over yet, we can think of at least the following four factors which contributed to a soft landing of the PECC economies despite the bust.

First, there were no property price busts, particularly residential ones, so that the negative impact of an equity price bust on the household sector was limited. Admitting some tautology, the confidence of the household sector depends on overall macroeconomic stability, including robust employment and steady disposable income. In this sense, timely policy actions to maintain confidence have become more important.

Second, after the previous crisis or near-crisis episodes, the financial sector has been restructured and disciplined, and has become *off* the center stage insofar as IT-related corporate expansions are concerned. Accordingly, there was little room for potential financial instability. We have observed a layer of improved regulatory rules, systems and organizations throughout the Pacific region which are referred to in the full text of our country papers.

Third, the securitization trend of corporate finance diversified its risks over a wide range of investors including not only financial institutions, but also households, institutional investors and foreigners. In contrast, in the early 1990s, corporate risk was ultimately taken on almost solely by the financial sector, especially in Japan.

Finally, quick and resolute monetary policy and other policies helped to maintain the confidence of the private sector in the financial system as well as policy management. In the past, there seems to be

real GDP growth (%)

money market interest rate (%)

share price index (1995=100, RHS scale)
 real credit to private sector (1995=100, RHS scale)

some asymmetry in monetary policies toward either equity price bust or property price bust. For example, while we observe easy money in the former, we observe tight in the latter, which in turn produced serious deflationary situations. Similar deflationary impacts were found in the case of the 1997 crisis. Subsequently, decisive monetary tightening to defend currency values turned out to be a disaster, and how to cope with asset price inflation is not yet known.

As we observed from the recent boom-bust cycles and their implication for macroeconomic policy management, we may be able to summarize the lessons learned and raise two issues for future consideration. The lessons are as follows:

- (i) Improving prudential regulation and strengthening supervision of the financial sector remain the core of macroeconomic structural policy. Even under the trend of securitization, stability of the financial system cannot be achieved without a robust financial sector.
- (ii) Improving scrutiny of corporate finance and strengthening (developing) of the capital market are indispensable. Overexpansion of corporate balance sheets will be the origin of booms and busts, and these may not be contained in the future. A systematic check and balance must be institutionalized either through rule-making or market disciplines.
- (iii) Sometimes quick and resolute management of macroeconomic policies is necessary for macroeconomic stability particularly to avoid deflationary spirals. The problem here, however, is that there is no consensus prescription against both the prevention and the cure of asset price booms and busts.

Finally, two mutually entangled issues must be pursued further:

- (i) Due to improved access to the capital market and to accumulating wealth, we must put more serious thought to debt management in the household sector. There is still the non-negligible risk of a property market bust in any country. How to cope with the risk and its impact on the financial system as well as the real sector will be a challenging task.
- (ii) With regard to asset price volatilities and their potentially significant impacts on the macroeconomy, whether inflation targeting is

adequate enough or not for macroeconomic stability will be another challenge. Why should the stability of product prices come prior to that of asset prices?

ENDNOTES

- ¹ There was no evidence of property price bubbles in Indonesia, Korea, Malaysia and the Philippines near the outset of the crisis.
- ² In addition to direct fiscal costs, we can count on contingent liabilities to be included. In the Asian crisis, governments in Indonesia and Thailand announced blanket guarantees for deposits in financial institutions to prevent bank runs and to restore people's confidence in the financial system. If these were included in public debt, the figures would become enormous.
- ³ The trilemma implies that we cannot attain all three policy goals—i.e., exchange rate stability, capital mobility and monetary autonomy—simultaneously. To attain exchange rate stability and capital mobility, we must give up monetary autonomy, which is the case of Hong Kong; to attain exchange rate stability and monetary autonomy, we must give up capital mobility, which is the case of China.

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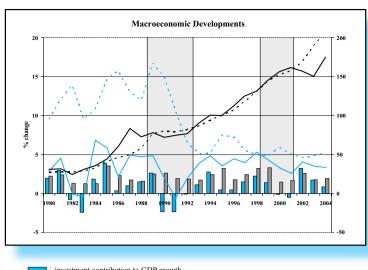
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: investment contribution to GDP growth
: consumption contribution to GDP growth
: real GDP growth
- : share price index (1995=100, RHS scale)
- : money market interest rate
- - : real credit to private sector (1995=100, RHS scale)
shaded area : periods of debt workouts

Banks remain at the core of Australia's financial system, although the increasing role played by financial markets—including the money, debt, equity, derivative and foreign exchange markets—means that financial disturbances are now more likely to originate in, and be transmitted through, these markets. Moreover, with more internationally integrated financial markets, instability can be imported from abroad, as demonstrated by the Asian crisis of 1997–98.

Traditionally, financial crises in Australia have been triggered by the failure of one or more banks, usually following a boom in asset prices and then a bust. The cause of the bust typically has been the incorrect assessment of credit risk (for example, by lending against temporarily inflated asset values). Contagion effects would lead to runs on other banks and the emergence of a full-scale financial crisis. Although a financial crisis of this kind has not been experienced in Australia recently, such crises are still possible.

Currently, Australia's banking sector is quite profitable by international standards. Yet the nation's current reputation for financial stability has evolved over a very long period of time, in response to episodes of domestic financial instability—notably in the 1890s, 1930s and, most recently, the early 1990s.

The latter decade began with the Australian banking industry experiencing its worst losses since the

depression a century earlier. In 1990, 1991 and 1992, the sum of individual bank losses (before tax) exceeded AUD9 billion which is equivalent to over 2.25 percent of GDP in 1990, or over one-third of the aggregate level of shareholders' funds in the banking system in 1989.

The main reason for these losses was that financial deregulation in the mid-1980s had created a climate of intense competition in which financial institutions expanded their balance sheets rapidly. This occurred at a time when asset prices, especially commercial property prices, were rising quickly and credit assessment procedures in many financial institutions had not adapted to the new liberalized environment. As a consequence, extremely strong credit growth was set against increasingly overvalued commercial property.

The growth in lending to households over the last ten years has been associated with a sustained rise in residential property prices and, more recently, with a strong increase in demand for credit by property investors. The ratio of debt to household disposable income has reached 125 percent which is in the upper range of other developed countries.

These circumstances have increased the financial risks facing households (30 percent) with that level of housing debt. Yet there are no obvious signs of financial stress in the household sector. Interest burdens are less than what they were in the late

1980s and early 1990s, and employment growth has bolstered household incomes and debt-servicing capacity.

A source of risk to continued financial stability is the possibility of a major correction in the housing market, affecting the balance sheets of financial intermediaries through defaults on mortgages. The balance sheets of banks could also be stressed if mortgage default rates rose suddenly due to rising interest rates that, in turn, reflect increasing global demand for savings and inflationary pressures.

Low and stable inflation, well-functioning financial markets and a reliable payments system are all essential foundations for financial stability. The Reserve Bank of Australia has adopted a policy of inflation targeting on the grounds that maintaining low inflation is important for macroeconomic and financial market stability. It is recognized that inflation imposes economic welfare costs. A continuation of inflation targeting within a narrow range can therefore be expected to further minimize inflation uncertainty and the arbitrary and unwarranted income transfers that it causes.

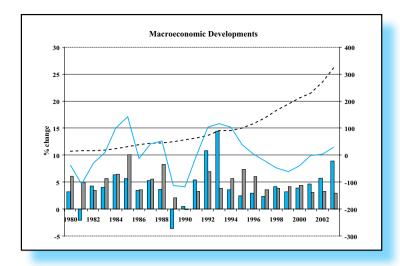
Over the past half-century, there have been major changes in the regulatory system governing Australia's financial markets and institutions. The regulatory architecture for Australia's financial system comprises three agencies, each with specific functional responsibilities:

- the Australian Prudential Regulation Authority (APRA), which has responsibility for the prudential supervision of deposit-taking institutions (banks, building societies and credit unions), as well as friendly societies, life and general insurers, and superannuation funds;
- the Australian Securities and Investments Commission (ASIC), which has responsibility for market conduct and disclosure in the financial sector, enforcement and administration of the Corporations Law, and consumer protection across the financial system; and
- the Reserve Bank of Australia (RBA), Australia's central bank, which retains responsibility for monetary policy and overall financial system stability, and is charged with promoting safety, competition and efficiency within the payments system.

Presently, Australia's financial system appears quite sound. Banks are, in general, adequately capitalized. Unlike many of its Southeast Asian neighbors, its banking sector did not suffer any lasting effects from the Asian financial crisis of 1997–98. The scale of nonperforming loans on the balance sheets of commercial banks remains small by historical standards and the regulatory system has been strengthened since the early 1990s to cope with the risks associated with a deregulated financial system.

Developments in Australia's financial sector suggest there will be continued shift from intermediaries to markets to cater to the growing demand for more diversified financial services. These include greater securitization, growth in corporate debt markets and investments in market-oriented instruments compared to deposits and similar instruments provided by intermediaries. Additionally, the range of derivative instruments markets for managing risk is likely to expand further. Australia's financial system can be expected to become even more highly integrated with global markets as technology facilitates access to markets overseas.





Note: For the legend, see the one for Australia, p. 22

China faces serious problems of bad debt in the banking sector, the securities market and local governments. Too much debt may damage the financial system and this could subsequently lead to financial crisis. Although China was able to avoid most of the negative effects of bad debts arising from the Asian financial crisis of 1997, the Chinese government recognizes the potential for adverse impacts of a similar crisis in the future and it has set about addressing the vulnerability of its economic system.

The debt issue can be derived from examining data on sectoral flow of funds balance sheet (B/S). The full sample period of 1992 up to the present are categorized into three non-overlapping subperiods: period 1:1992-96, period 2: 1997-2002, and period 3: 2003 to the present. Households were always the main surplus sector but began to lend more money after the government pushed forward the reform of housing in 1997. The corporate sector absorbed capital mostly from the banking sector reflecting the fact that the Chinese financial mode is different from that of some Western countries in which direct finance play an important role. The amount of capital that the corporate sector needs is in line with the business cycle; this means that during an economy boom, the corporate sector lends more, and conversely during an economy slump, businesses lend less. In general, the government sector is neutral; however, during the second period, the government issued more bonds to support expanded expenditure.

Asset market dynamics (i.e., markets for corporate stocks, housing and land) may cause these developments of B/S as mentioned above. Domestic credit increases too quickly and bubbles in the stock and real estate markets are signals of economic crisis. Because of the special financial structure of China, nonperforming loans of commercial banks have a significant effect on demand components (i.e., investment and consumption).

The banking sector is the blood circulation system of the national economy. Abnormal banking behavior will certainly result in blocking of the monetary policy transmission mechanism, which, in turn, makes the adjustment of interest rates ineffective. The debt workout of the banking sector mainly affects monetary policies and may influence fiscal policies as well. First, retaining the interest spread results in inflexibility of monetary policies and could lead to an adverse effect in the credit market and furthermore to a vicious circle of bad debts. Second, the concentrated peel-off of bad debts led to moral risks and the plight of fiscal policies. Ultimately, the monetary polices may go out of control. Third, an influx of capital would weaken the effect of tight monetary policies and increase the financial burden of governments.

Bad debts of securities companies were not prominent during the growing period before 2001. China began to compress the bubbles in the stock markets in 2001. As the stock index continued to fall, however, the bad debt of securities companies

emerged. When some securities companies went bankrupt in 2003 and 2004, the Chinese authorities stopped compressing the bubbles and took measures to initiate the confidence of stockholders. This means that the huge amount of bad debts actually increased the difficulties of reducing market risks. If there were not this huge amount of accumulated bad debts, there would have been greater flexibility to mitigate market risks. If the bad debts in securities companies remain unresolved, it will be difficult for China to establish a sound capital market system.

The rapid development of housing since 1997 is a key factor propelling investment demand. If not for the rapid development of the real estate market in the past seven years, the expansive fiscal policy and relaxed monetary policy would not have had a great impact. By the end of 2003, the bubble in real estate in some cities was obvious so that authorities began to worry about the floating rate of long-term mortgage's potential risk and increased the interest rate on Oct. 29, 2004. However, at the same time, governments are not willing to experience a burst in the housing and land bubbles as they are concerned about the economic crisis that could result. Hence, the present situation in the Chinese real estate market represents an obstacle to increasing the interest rate.

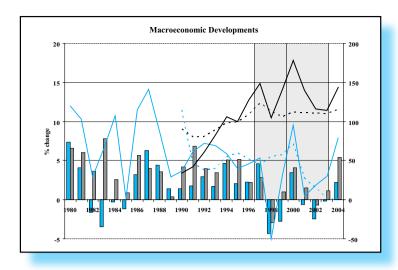
Moreover, government bad debts may damage the integrity of government bodies and increase the difficulties and costs of financing. The high level of government bad debts has increased financial pressures and may induce monetary policies to go out of control. In extreme cases, foreign exchange policies were needed as a supplement. However, such passive adjustments led to a lack of independence in foreign and domestic economic policies. In the future, controlling the rapid growth of government debts will affect the implementation of expansive fiscal policies.

To stabilize the real economy in reaction to B/S vulnerabilities, China has implemented some measures such as changing the banking sector, mitigating risks in the securities market and resolving liabilities of governments. At the same time, attention has been paid to households' lending and foreign exchange aspects.

Over the past ten years of experiments, several lessons can be drawn: the culture of being honest and having credit; grasping of the center of the transformation of the economy which is reform of enterprise; changing the present financing mode, which relied excessively on bank lending; optimizing ownership structure, corporate governance and the internal control system of financial institutions; a focus on asset prices on the real economy; and then incorporating these factors into designing monetary policy.

China is deepening its financial reform, including the banking sector and its capital market. The People's Bank of China (China's central bank) is becoming the center of deepening reform and some financial reform. Risk management policies have been implemented since Dr. Zhou Xiaochun became president of the central bank. Based on these trends, we believe that China will establish a healthy financial system and improve its risk management ability in the near future.





Note: For the legend, see the one for Australia, p. 22

The Asian financial turmoil in 1997–98 revealed the pitfalls of excessive leverage, and notwithstanding the severe hardship that the crisis caused, it provides all of the affected economies a useful lesson. We have seen extensive restructuring in many of the Asian economies following the crisis, and Hong Kong has also taken the opportunity to review and enhance its system and infrastructure in order to add strength to its resilience to external shocks.

Apparently the Hong Kong economy has been able to weather the crisis relatively better than many of its neighboring economies. This is a manifestation of the inherent strength of Hong Kong's economic infrastructure as demonstrated by the flexibility in the local cost/price structure, monetary discipline and fiscal prudence, the sound legal framework, and its well-regulated and properly supervised finance and banking systems.

In particular, both the corporate and household sectors in Hong Kong are not highly leveraged. This, notwithstanding, the corporate sector has engineered substantial balance sheet adjustments after the crisis in order to regain competitiveness. A detailed analysis of external debt and balance of payments (BOP) statistics further demonstrates that Hong Kong's private sector is financially sound and far from being overleveraged, and therefore is not unduly vulnerable to unfavorable changes in credit conditions or a sudden reversal of capital flows.

The government of HKSAR has maintained a prudent fiscal policy and sizable fiscal reserve, despite the marked deterioration in its fiscal position in the post-crisis years. With regard to monetary policy, the linked exchange rate system is simple and transparent, and is also highly credible on the back of enormous foreign exchange reserves.

The local banking sector has also displayed its strength and resilience to adversities thanks mainly to its prudent lending practices, strong balance sheets and robust external position. Also relevant is the sound supervision performed by local authorities. As a result, the local banking sector managed to remain profitable and highly liquid even in the wake of the Asian financial turmoil.

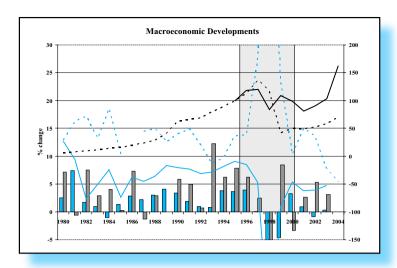
Nonetheless, the Hong Kong economy as a whole was still hit hard by the financial turmoil. Apart from triggering a severe economic setback in 1998, the crisis also contributed to the bursting of a property market bubble that marked the beginning of a prolonged and painful adjustment process. This involved protracted deflation, the problem of negative equity leading to sluggish domestic demand, shrinkage in bank loans for domestic use, as well as a worsening in the fiscal situation.

Even with the absence of monetary devices to fine-tune the economy under the linked exchange rate system, the government of HKSAR has made a great effort during the post-crisis years to relieve the pain borne by various sectors amidst the prolonged adjustment process, while firmly adhering to the principle of "big market, small government." Measures taken include tax cuts and rebates, a special finance scheme for small and mediumsized enterprises (SMEs), the Mortgage Insurance Program (MIP) to facilitate home purchases, and various policy initiatives to help debt restructuring between banks and enterprises/households.

The government has also devoted considerable effort to enhance Hong Kong's financial infrastructure over the past few years. A notable example is the strengthening of the currency board arrangement in September 1998. The enhancement in clearing and settlement facilities has laid the foundation for the development of a deep and liquid debt market in Hong Kong, so as to provide local enterprises with more diversified sources of business finance. In addition, the establishment of a Commercial Credit Reference Agency (CCRA) for SMEs has facilitated banks' credit assessment and has made it easier for SMEs to obtain finance. All of these measures should further strengthen Hong Kong's resilience to adverse economic shocks by reducing the likelihood of a credit crunch.

In sum, the "free market principle" has worked well for Hong Kong. In the aftermath of the Asian financial crisis, competitiveness has been restored mainly through adjustments in Hong Kong's domestic price and cost structure. Hong Kong must continue its efforts to strengthen its market fundamentals, and at the same time address the weak spots in the economy. In view of the rapid pace of globalization and advancement in technology, macroeconomic management is no longer the task of an economy on its own. Cooperative action across economies is not only desirable; it is pertinent.





Note: For the legend, see the one for Australia, p. 22

The economic and financial crises that impacted Indonesia since mid-1997 triggered a significant economic downturn, especially in the banking system, the business sector, and the social and political environments. Mounting inflationary pressure along with a battered rupiah exchange rate further compounded the deterioration of the country's economic fundamentals. A vicious depreciation-inflation spiral following the excessive expansion of money supply due to the bank run precipitated the threat of hyperinflation. With confidence in the banking system eroded, the financial intermediary function of banks virtually came to a halt, resulting in a sharp fall in production and investment. The end result was a deep contraction of the entire economy, accompanied by heightened social and political tensions emanating from massive unemployment and widespread poverty.

To deal with the crisis and unfolding hyperinflation, difficult and tough measures were required. A broad-based policy package that included four major elements was adopted. First, a primary role was given to a tightening of monetary policies, with a sharp increase in interest rates and strict controls over base money and net domestic assets to achieve macroeconomic stabilization. Second, an adjusted and less restrictive fiscal framework was implemented, with the resulting fiscal deficits in large part financed externally. This expansionary fiscal stance was designed to cover the costs of bank restructuring and recapitalization, the effects of devaluation on external commitments and to provide social safety net measures to cushion the

impact of the crisis on the poor. Third, to address the virtual collapse of the financial system, an action program for restructuring the banking system and recapitalizing the banks, including complementary measures to deal with corporate debt, was developed and implemented. Finally, continuity was given to a program of structural adjustment and reform, focusing on measures to increase efficiency and competitiveness.

The results of this economic adjustment and reform program, while painful, are increasingly well known. There has been major progress in the restoration of macroeconomic stability, supported by sound monetary policies. The risk of deepening hyperinflation in 1998 was averted and inflation has since abated, reaching a record low of 5 percent in 2003. The rupiah has strengthened at around Rp8,800 per U.S. dollar and exchange rate stability was restored in a free market environment. Consistent with the renewed macroeconomic balance, pressures on the interest rate abated along with an improvement in the risk premium, a steady appreciation of the rupiah, an increase in foreign exchange reserves to a record high and of share values on the Jakarta Stock Exchange. With the restored macroeconomic stability and renewed business confidence, signs of incipient recovery in the real economy are taking place and GDP is gradually rebounding, as confirmed by improved leading indicators. In this regard, economic growth has continuously increased up to nearly 5 percent in 2003. The economic recovery, while still fragile and beset with uncertainties, appears to be ongoing and widening its base.

A critical issue addressed in this study is how common shocks during the crisis period brought about the macroeconomic outcomes we have witnessed. The study briefly discusses the problems. responses and lessons learned in the country's effort to restore the economy to its long-term potential growth path. The balance sheet conditions across sectors in the economy (government, corporate, household and banking) are examined. The study shows that some progress has been achieved and the steady improvement in the overall macroeconomy and socio-political conditions have gradually reversed the picture. As a result, Indonesia has recorded the highest momentum in 2001 with a net borrowing surplus of 2.9 percent of GDP. On the other hand, the picture shows that while saving and investment steadily increased, the gap in net borrowing (S-I) fluctuated over the last decade. This confirms that the recovery process is staggering and is vulnerable to subsequent shocks that may hit the economy; thus efforts to restore economic growth and stability face substantial challenges.

Another emerging issue is the vulnerability of balance sheets, the factors affecting this vulnerability, and how these conditions will impact the economy. This paper partially addresses the issues on the behavior of asset market dynamics and the impact of balance sheet adjustment on monetary policy transmission. It can be concluded that there are indications that bank's balance sheet adjustments. which have led to bank disintermediation, have reduced the effectiveness of monetary policies during the crisis and postcrisis period. Structural changes and balance sheet adjustment in banks and borrowers have altered the smoothness and effectiveness of monetary policies. As banks remain the major source of financing in Indonesia, this situation contributes to the current slower pace of economic recovery compared to other countries that experienced similar crisis.

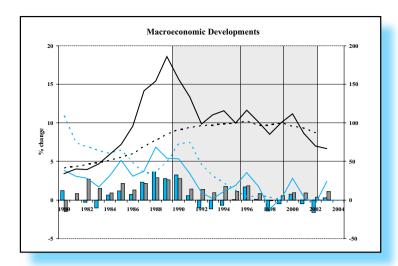
The above issues clearly imply that the vulnerability of balance sheets have widespread impacts on the whole economy. As experienced by Indonesia and other Asian countries, it has been empirically shown that the vulnerability of the corporate sector propagated to the banking sector as the key player in financial markets, and onto other sectors as well. Therefore, urgent action was implemented

by the Indonesian macroeconomic policymakers who focused their efforts on strengthening financial markets, among others, by developing bond markets and implementing a strong banking architecture.

Currently, the government bonds market has become more liquid and efficient. However, it remains necessary to maintain a close watch on the market due to refinancing and undersubscriptions, which could erode government credibility and the sustainability of state budget financing. Recent developments show that large amounts of government bonds will mature in the 2004-13 period, which narrows the long-term options for government bond refinancing. This was one of the factors behind several cases of undersubscription of government bond issuance in 2003. The corporate bond market has also improved markedly, as evidenced by the rising value of new bond issuances and market capitalization. However, such rapid developments necessitate close monitoring due to potential and systemic risks. Meanwhile, the architecture also represents an urgent need for the Indonesian banking system in order to strengthen the fundamentals of the banking industry. The 1997 economic crisis demonstrated that Indonesia's banking industry lacked the proper institutional basis, and therefore requires strengthening of fundamentals to be able to withstand internal and external shocks. Lack of strong fundamentals in the banking system presents a challenge not only for the banking industry as a whole, but also for Bank Indonesia as the authority responsible for bank supervision.

Despite the improvements that have been made, various constraints remain and the recovery process is yet to be accelerated. The banking system is still struggling to improve its risk management capacity, with a remaining reluctance to restart lending and a preference towards investment in government bonds and Central Bank certificates. The challenge is to speed up institutional reform so that credit lending and other funding sources can resume to support higher investment growth. Debt restructuring and structural reform will have to be pursued in order to avoid the same recurrence of crisis. Policy coordination in developing the bond market and conducting prudent monetary and fiscal policies is equally crucial, and is fortunately legally supported and benefits from an independent Central Bank.





Note: For the legend, see the one for Australia, p. 22

The Japanese economy has been in a long slump after the collapse of the asset-price "bubble." This paper, which examines the persistent stagnation, notes several points. Few expected the persistent stagnation, the "Lost Decade," in the first half of the 1990s. and in fact, there were several occasions when the Japanese economy appeared to be on the road to recovery. However, these short-term upturns in the economy did not lead to robust recoveries due to obstacles such as the ongoing balance sheet adjustments, policy mistakes and so on.

As this slump continued, mild deflation began. Faced with the heavy debt burden inherited from the bubble period, the private sector began to adjust their balance sheets. This changed the flow of funds dramatically so that some of the ordinary interconnections between the real and financial sectors broke down. This has made genuine economic recovery more difficult and has been a contributing factor to the persistent stagnant economy. However, it appears that the adjustment process has accelerated in recent months. This may make up for the breakdown in the real-financial interconnections. If policymakers have learned enough from their mistakes in the recent past, we may be able to have full-fledged recovery arising from the deflation.

Many researchers have investigated the causes of this persistent slump and have made policy recommendations. The majority of the studies focus on factors such as policy mistakes, bad loans and excessive debts which may explain the demand shortages; as a result, these studies tend to recommend more active macroeconomic policies. Others insist that supply-side factors, like the adverse productivity shocks, are the main causes of the slump, and argue for structural reforms of the economic system. In addition, there are studies that emphasize the interconnections between the demand and supply factors.

On the macroeconomic policy side, several policy mistakes are confirmed. The monetary policy actions were delayed in the beginning of the bubble and again after its collapse, and yet again in the mid-1990s. At the same time, fiscal policy actions were not consistent over time. The government first tried to expand the economy, then attempted to reduce the deficits, and subsequently tried to expand the economy again. These inconsistent zigzag movements caused further inconsistency between the two macroeconomic policy actions. In addition, the tax side of fiscal policy operations seems to have neglected the slump for quite a long time.

In terms of balance sheet adjustment, the structure of the funds flow changed dramatically after the bubble collapse. While funds used to flow through private financial institutions during the bubble period, after its collapse, funds flowed through public financial institutions and the government. In addition, after the bubble, all components of the private sector—private corporations, households

and private financial institutions—shrank the size of their balance sheets by reducing both assets and debts. In particular, private corporations appear to have sped up this adjustment process recently, and currently, they are in financial surplus. However, the public sectors—i.e., the general government, the public corporations and the public financial institutions—expanded its assets and debts. In other words, the private sector avoided risk-taking activities and the public sector took over them.

These structural changes in the flow of funds have affected the macroeconomy. VAR(vector autoregressive model) analysis that examines macroeconomic variables, policy actions and sector financial surplus/deficits reveals quite a few changes. These changes reflect the breakdown of the ordinary propagation mechanisms of the business cycles, which have occurred in the post-bubble period. As a result of these changes, in the post-bubble period, GDP has not recovered well in response to the shocks which used to cause strong recoveries.

An increase in the personal financial surplus is one of those shocks. Before the bubble collapse, it would lead to GDP expansion; however, after the collapse, responding to this shock, households increased only the very liquid assets such as deposits and currency. Though deposits increased, banks did not loan the funds out since they were handicapped with huge amounts of nonperforming loans. In addition, a significant majority of corporations, probably the smaller ones, were more financially constrained in this period, though private corporations as a whole were in financial surplus. Thus, an increase in the personal financial surplus did not lead to credit expansion nor to business investments; as a result, GDP did not increase.

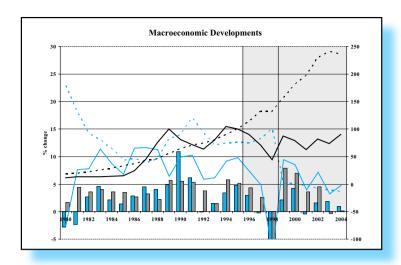
Facing this environment, the policy responses changed. For example, monetary policy used to restrain credit expansion, but no more. After the bubble collapse, the monetary authorities tried hard to accommodate demand. These policy operations seem to have helped in avoiding the deflation spiral, but they have not been sufficient for full recovery.

Finally, the "policy duration" effect of the current monetary policy commitment is analyzed in the turbulent episode of 2003. The commitment to

continue the current accommodation successfully lowered the medium- to long-term interest rates significantly by changing market expectations. However, turbulence is caused by changes in those expectations when it appears that the deflation rate is closer. The exit policy from the current "Quantitative Easing" policy is technically difficult and is not yet well-specified.

The economic expansion may not go on straight-forwardly in 2004–05. However, the balance sheet adjustments have proceeded significantly in the private sectors. Thus, the real-financial interconnections may have been restored so that true recovery is not far off in the future.





Note: For the legend, see the one for Australia, p. 22

The Korean economy has gone through drastic changes in the relatively short period since 1990. As exemplified by the financial and foreign exchange crisis of 1997, idiosyncratic factors, most notably balance sheet conditions, specific to the Korean economy played an important role both before and after the crisis in determining how the contagious common shock (e.g., a collapse in the exchange value of currencies) affected various macroeconomic outcomes that were not necessarily the same across the region. This paper examines the interplay of Korea's idiosyncratic conditions, mainly the balance sheet situations, as well as the common external conditions (e.g., financial crisis, global slowdown).

The advent of the 1997 financial crisis appeared to have introduced discontinuity in the Korean economic landscape. For example, the heavily leveraged Korean businesses were in an expansionary mode typical of the earlier (pre-crisis) rapid-growth period, but were quick to de-leverage with the onset of the crisis. Recovery has taken several years since the onset of the crisis, and in particular, large-scale efforts to restructure the financial sector coupled with a strong surge in exports have been the most visible developments during the period immediate after the outbreak of the crisis. By 2001, most restructuring issues that required immediate attention had been addressed and normalcy seems to have returned.

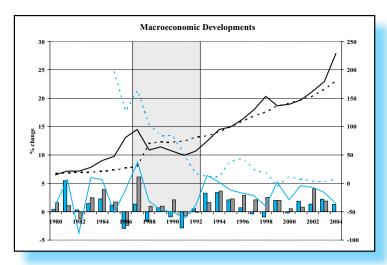
However, the newly emerging Korean economy

looks quite different compared to the period before the 1997 crisis. Households' saving patterns, for example, have been quite erratic, while businesses have reduced borrowing. The government has also become a major borrower. Domestic demand has remained weak and thus the overall pace of growth has been determined largely by external demand. Efforts to support domestic demand by boosting consumption in 2002 initially created a boom in consumer credit; but the consumer credit bubble quickly turned into a bust and a sharp surge in the consumer credit delinquency rate followed.

The rapid debt adjustments that took place at a very large scale in the wake of the 1997 crisis, and a minor one following the consumer credit expansion of 2002, certainly have imparted a clear contractionary momentum to Korea's real economic sector. Many in Korea are concerned about its permanence, as domestic demand has remained quite sluggish since 2002. A large-scale and sudden adjustment of financial imbalances indeed seems to have substantial real consequences. In terms of financial conditions, the household sector continues to be the surplus sector but less so compared to the early 1990s. Businesses have retrenched, cutting down on investment as well as borrowing. On the other hand, the government has emerged as a major deficit sector.

With respect to policy lessons, it is important to avoid a path of economic management, or economic development management, that could lead to major imbalances that would necessitate a massive adjustment in a short period of time. In addition, if faced with unavoidable large-scale adjustment, such as a debt overhang, one has to assess very carefully possible adverse long-term consequences of a 'cold-turkey' approach. Korea's experience suggests that the linkage between vigorous restructuring efforts and the return of economic vigor within a reasonable amount of time may not be as tight as some envision.





Note: For the legend, see the one for Australia, p. 22

Like many countries, incidents of financial distress have marred New Zealand's modern economic history. Without question, the most turbulent period was between 1984 and the early 1990s. The rapid adjustment from an economy characterized by high levels of government intervention and regulation to arguably the most free-market industrialized economy of the era, gave rise to massive sectoral supply-demand imbalances, many of which had dire consequences for the financial sector. Collapsing farm incomes and massive overinvestment in the commercial property sector precipitated the failure of the Development Finance Corporation in 1988, which at the time was New Zealand's seventh-largest financial institution. Around the same time, the Bank of New Zealand required a significant injection of new funds from the government, then the bank's largest shareholder. Deregulation of the financial sector significantly increased the level of competition in the sector, which in turn led to the closure (but not necessarily failure) of a number of financial institutions and consolidation of the remaining players.

However, while potentially damaging to individual investors, neither the DFC failure, the BNZ recapitalization nor the M&A activity of the financial sector resulted in systemic losses. Any financial losses were typically confined to the central institution involved via a combination of appropriate and early remedial action effected by the government, supported by transparent signals of intent; a

background of well-thought out, well-communicated, and, at times, well-implemented macroeconomic policy (in particular, highly successful inflation targeting); and plain old good luck. These incidents of financial distress did, however, serve to remind the New Zealand government and the country's financial institutions that it was not immune to such failures, and that the potential for a financial crisis was very real. Lessons learned during this period support the financial regulatory and supervisory arrangements that exist in New Zealand today.

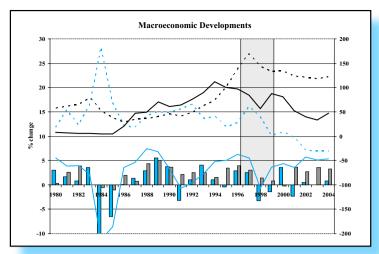
The structure of New Zealand's banking sector, and partly as a consequence, its regulatory and supervisory framework, is perhaps unique. New Zealand's four largest banks, holding over 85 percent of banking sector assets, are owned by Australian parent companies. This degree of overseas control is unparalleled among industrialized countries, and provides something of a safety net, provided the Australian banking authority continues to effectively monitor its banks.\(^1\) New Zealand's banking watchdog, the Reserve Bank of New Zealand (RBNZ), has therefore adopted a relatively light-handed regime, preferring to concentrate on the provision of relevant information to depositors, thus relying on regulation by the market.

Although the regulatory approach adopted in New Zealand has attracted some criticism, assessment of the financial system by the RBNZ has found that it appears to be relatively resilient to a range

Note: ¹ This implicit reliance on APRA has been accused of being free-riding behavior of the RBNZ.

of hypothetical shocks. In a recent review, the IMF found that New Zealand's financial system was efficient and profitable, and that short-term risks to stability appear low. These findings are supported by a range of stability indicators, ranging from return on banking assets to capital adequacy ratios.





Note: For the legend, see the one for Australia, p. 22

The Philippines is the second-largest debt issuer in Asia, next only to Japan. In 2004, national government outstanding debt reached almost 79 percent of GDP, a 23 percentage point increase from 1997. If total public debt, which includes contingent debts such as those guaranteed and assumed by the government, is considered, the debt figure goes up to 96 percent of GDP.

The public debt is rising steadily with the deterioration of the government's budget deficit. In the late 1970s and 1980s, the public deficits have been perennial concerns that led to several deficit reduction programs. The worsening deficits were blamed primarily to declining government revenues, high government spending on personal services, and interest payments.

However, the government deficit does not tell the entire debt story. The major contributor to the rapid increase in public debt is not only the chronic budget deficit, but also the worsening performance of the 14 government owned and controlled corporations (GOCCs) monitored by the government.

Under the Ramos administration, with the help of multilateral financial institutions, an average budget surplus of P9 billion was experienced between 1994 and 1997. The surplus trend was, however, significantly reversed with the onset of the Asian crisis in 1997 followed by the severe El Niño drought in 1998. During this time, the government

abandoned its macroeconomic policy stance of expenditure control in an attempt to grow out of the initial recession. Consequently, the deficit deteriorated and the government found itself borrowing heavily from both domestic and foreign sources to finance the deficit resulting in the buildup of public debt.

The reliance of the Philippines on borrowing to service its debt obligations sprung from the fact that its primary surplus is not sufficient to service the interest payments. In 2004, the primary surplus amounted to P74 billion or a mere 1.5 percent of the GDP, while the interest payment due that same year amounted to P261 billion.

Given the small primary surplus, the rising share of foreign debt adds to the difficulty of servicing the debt. The public debt is denominated in both local and foreign currencies. From its pre-crisis level of 44 percent, foreign debts increased to 56 percent in 2004. This rising foreign debt ratio exposes the Philippine economy to foreign currency risk and other external shocks.

The obvious implication of the large debt and deficits on macroeconomic management is the curtailment of the government's policy space. Since the government must devote a large portion of its budget to debt service, the proportion left for current services and capital investments is severely constrained. On the other hand, the less obvious effect of large public sector deficits and debt stock

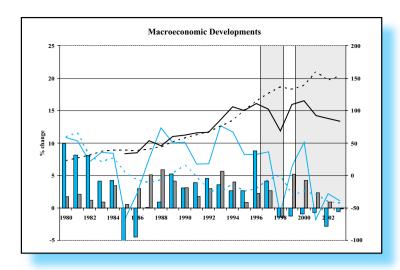
is the "crowding out" by the government of the private sector.

In the past seven years, roughly one-third of the national budget went to debt service, crowding out the government's option to determine what development projects it would prioritize. Compared to other Asian countries, the Philippines has the lowest spending on infrastructure, averaging only 2.7 percent of GDP annually between 1990 and 2001, compared to Singapore (5.1 percent), Indonesia, (6.9 percent) and Thailand (4.7 percent), to name a few. The weak infrastructure has eroded the country's competitiveness as an attractive investment site in the Asia-Pacific region as reflected by the declining share of foreign direct investments flowing into the region.

A few lessons can be drawn from the Philippine experience with respect to public sector debt and deficits. First, the last quarter century shows that public sector deficits are difficult to escape once a country falls into those situations. The second lesson is concerned with the effects of debt workouts on macroeconomic management and resource allocation. Higher interest rates, preferential access to domestic funds by the government, and the increased proportion of debt service in the government budget probably crowd out private sector activities and distort resource allocation in the economy as a whole. Lastly, large public debt and deficits distorts the government's own resource mobilization and allocation.

In sum, large public deficits and the resulting debt level have costs that may not be fully incorporated into policy decisions. Policymakers need to be more conscious of the hidden costs of a long period of debt workouts that invariably become necessary in the long run.





Note: For the legend, see the one for Australia, p. 22

Singapore is one of the wealthier economies in East Asia and ranks second-highest in terms of per capita GDP (measured in current U.S. dollars) since 1990. Over the past four decades, Singapore's economy is characterized by high GDP growth, high gross national savings, low unemployment, low inflation, substantial current account surpluses, low levels of debt and steady appreciation of the Singapore dollar. Singapore is also an extremely open economy with imports and exports of goods and services exceeding GDP by nearly threefold over the last two decades.

Being a hub for headquarters of regional multinational corporations (MNCs), Singapore has become a large source of outward direct investment undertaken by MNCs and government-linked companies (GLCs) since the early 1990s. In addition to being an international financial center, Singapore also serves as a large source of and destination for portfolio investment. The strong presence of Singapore's offshore market is also reflected by both large inward and outward flows in the other investment category. Singapore's steady accumulation of international foreign exchange reserves since the early 1990s has also led to large negative financial flows.

The Central Provident Fund (CPF) Board is an innovative market-based institution designed in the 1960s by the Singapore government to replace the traditional state-funded pension system. While the CPF system has been subjected to several fine-tunings over the past decades as a macro instrument to restore wage competitiveness whenever the economy falters (in 1986, 1997 and 2001, for example), its three fundamental objectives of promoting house ownership, nonstate base medical

and retirement schemes have been by and large fulfilled. The unique CPF system not only assures its members a pre-announced interest return that is benchmarked by the weighted deposit rates paid by local banks, but the state also guarantees withdrawals by all members at the age of 55 and immediate withdrawal by those members who are leaving Singapore permanently. The CPF board, in turn, is under the stipulated statutory requirements to purchase long-term government securities issued by the Monetary Authority of Singapore (MAS), which then directs those borrowed funds to government agencies for investment outside Singapore. Members' total CPF balances have risen steadily over the decades with stable interest returns being credited to each member's account.

Singapore as a regional financial hub appears to have recovered steadily from the 1997 Asian financial crisis that severely crippled ASEAN economies. Banks, both local and foreign, totaling 115 in 2004 demonstrated their resilience in healthy expansion in terms of their assets and liabilities covering domestic banking units (DBUs) and the Asian currency units (ACUs). If we study trends of bank loans and advances for domestic use according to industrial classification, the share of housing loans as a percentage of total loans has climbed steadily from 16 percent in 1995 to 31 percent in 2004, due partly to liberalization of the public housing mortgage market in 2003. The government's property enhancement policy implemented since the early 1990s has been so effective that consumers continue to gear up or invest heavily in the real estate sector, which resulted in the Singapore syndrome known as "asset-rich cashpoor" for retired workers which may not be wise. In fact, if we lump building and construction with

housing loans, the real estate property sector accounted for 45 percent of total loans and advances by banks. The ratio of manufacturing to total loans has declined steadily from 10 percent in 1995 to 5 percent in 2004, while loans to financial institutions and professionals have remained quite steady.

Following the MAS' Financial and Banking Liberalization Plan in 1999, private sector bond issuance has taken a significant quantum leap since 2000. Government-linked companies are in fact encouraged to raise capital from the private sector subject to market pricing instead of looking towards government funding. Singapore is determined to develop itself into a major regional capital market in both the bond and equity markets; however, the latter does not appear to have been very successful.

Singapore's leading role as a regional funding center can be seen from the activities of the Asian Dollar Market (ADM) according to inter-bank lending of ADM outside Singapore, which has risen from S\$201 billion in 1995 to S\$291 billion in 2004, a rise of 45 percent over a decade. However, lending to nonbank customers, which is hovering around S\$85 billion, has yet to recover from the level prior to the 1997 Asian financial crisis. Interestingly nonbank customers' deposits in the ADM have soared from S\$81 billion in 1995 to S\$138 billion in 2004, which probably accounts for the inter-bank leading activities outside Singapore due to restructuring of economies in the crisis aftermath.

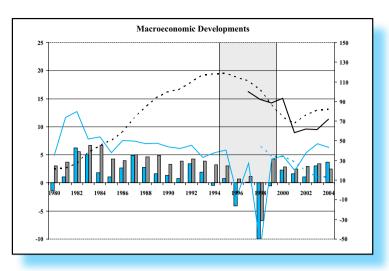
Over the past four decades, successive Singapore governments have been able to operate under structural budget surpluses with the economy growing above its potential or natural output. Given the aging population and rising health care burden, Singapore must avoid and resist being caught in a situation of structural budget deficit under increasing pressure from the public at large for subsidies and state handouts, which is addressed in the second part of the study.

Accumulation of government surpluses has slowed since the 1990s. It has become increasingly difficult for the government to sell the idea of reserve accumulation and to resist demand for more handouts. Distributing handouts to those who do not need it is a waste of precious financial resources. A more-focused approach to assist targeted social groups or purpose-oriented projects, which generate wider benefits or spin-offs, may be more effective and less costly.

In summary, the lack of precision in policy statements on surplus accumulation, management and utilization has led to negative perceptions on all three counts. First, people in general are unwilling to accept further saving or wealth accumulation without a good purpose. Since citizens cannot see when reserves will be deployed, they do not appreciate the need to "maintain moderate government budget surpluses over business cycles." Consequently, the government is under intense pressure to provide handouts since it has accumulated a substantial pool of reserves. In fact, past experiences elsewhere have shown that successive governments have increasingly not been able to withstand such pressure without making concessions. Such a strong national surplus position also helps to explain the public's general resistance to any increase in taxes (including the GST) and public service charges.

In conclusion, our suggestions and observations pertaining to government surplus accumulation, management and utilization may be summed up as follows. First, the public should be convinced of the need to accumulate and maintain handsome surpluses given the vulnerability of Singapore in an increasingly globalized economy, the volatile regional environment and intensifying challenges from China, India and some of Singapore's neighbors. Second, the government should avoid developing unhealthy public expectations on handouts by indiscriminate redistribution of surpluses. It is currently in danger of doing just this, after several earlier attempts at redistribution that came in different forms and under varying justifications. A more-focused approach should be adopted, targeting those who have lost the ability to compete and avoiding those who do not need help. Third, the government should moderate or even preempt surplus generation through fees and charges by government agencies that are supposed to operate on a cost recovery basis. One important outcome of such an exercise will be to contain the rising cost of doing business in Singapore. Fourth, budgetary operation should continue to aim for surpluses, the extent of which would be determined by the strength of economic growth. While shifting from a direct tax to an indirect tax is an appropriate long-term measure to widen the tax base with a rapidly aging population, other ways to improve budget surpluses or contain budget deficits would include tightening expenditure on non-essential items. While recognizing that good systems and institutions do not guarantee good outcomes, it is imperative to embrace and institutionalize good corporate governance in order to protect and grow our hard-earned financial resources.





Note: For the legend, see the one for Australia, p. 22

Chinese Taipei's financial environment has undergone dramatic changes recently. These changes consist of various monetary and fiscal policies which were used to stabilize the financial market and the whole economic structure as well.

As balance sheets and sectoral funds transaction data show, Chinese Taipei has been always in a funds surplus situation over the last ten years, but has experienced two recessions, one in 1995 and another in 1998. The former was the result of prosperous expectations, whereby the rise in domestic investment and outward foreign direct investment reduced the level of funds surplus. The latter recession was induced by the economic turmoil of Asian financial crisis. The decline in the export sector led to a systemic failure of enterprise, from small- to medium-scale enterprises to business bloc.

The rise of nonperforming loans (NPLs) places a direct drag on financial institutions' balance sheets, and the collapse of enterprise means the vanishing of employment opportunities. In Chinese Taipei, household loans were always targeted toward the housing market. As a result, the increase in unemployment not only worsened the balance sheet condition of households, but also led to further deterioration of financial institutions' balance sheets. These challenges were compounded by a series of shocks that hit the economy including the collapse of real estate prices, an earthquake measuring 7.3 on the Richter scale, and for

the first time, negative economic growth. These phenomena pushed the ratio of NPLs to record levels of 8.78 percent in March 2002. For foundational institutions, credit departments of farmers' and fishermen's association, the NPL ratio went up to 21.44 percent in June 2002.

To treat the symptoms of fiscal vulnerability, Chinese Taipei implemented macroeconomic policies to deal with these balance sheet vulnerabilities. Because it had been defeated by speculators, the Central Bank abandoned its defense of the exchange rate. This forced the NT dollar to depreciate from the annual average value of 28.71 in 1997 to 33.46 in 1998. Subsequently, in May 1998, the Central Bank established strict limits on the trading of nondeliverable forward contracts in foreign exchange so as to effectively fend off speculation in the market.

Similarly, short-term interest rates followed a downward trend to about 6 percent, after the Bank's reduction of the rediscount rates four times during the Asian crisis. An easy monetary policy was pursued by lowering the required reserve ratio and releasing postal saving redeposits continuously. These efforts helped to fill the gap of funds for the enterprises sector.

In November 1998, the Ministry of Finance and Central Bank announced a relief package aimed at pulling troubled companies through their difficulties. If certain conditions were met, companies could apply to the Special Committee for Aid to the Operating Fund of Enterprises for financial accommodation. These measures were designed to prevent financial markets from being unduly upset by consecutive incidents of financial defaults, and to avoid a possible credit crunch.

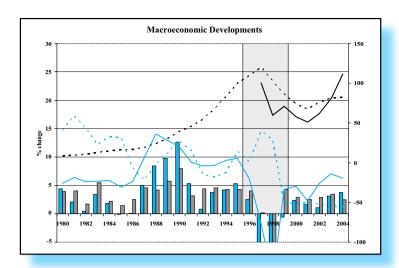
The authorities also took fiscal stimulus measures aimed at expanding domestic demand in August 1998. Some of the main measures included the implementation of an accelerated budget, an increased supplementary budget amounting to NT\$161 billion for public investment and over 600 important items designed to encourage private investment. In addition, measures for the revitalization of the housing industry were taken. In December 1998, Chinese Taipei approved a revitalization policy regarding the housing sector, and NT\$150 billion of postal redeposits were made available at low interest rate loans to the public for the purchase of residential housing.

Other measures were also implemented for the sake of maintaining economic growth including: promotion of an exports plan, amendments of financial regulations, the establishment and operation of a financial restructuring fund, and Promoting Financial Asset Securitization.

As a result of these measures, the ratio of NPLs began to decline in the second quarter of 2002. The cleanup of NPLs reached NT\$1.168 trillion (US\$33.3 billion) by November 2003. Moreover, the Financial Restructuring Fund had handled 44 financial institutions from their former owners. Fourteen financial holding companies, five asset management companies, seven cases of M&A in the banking sector, and five cases of securitization were launched through the end of 2003. These measures helped to shape a new look for the banking industry and improved their competitive advantages in the banking sector.

However, some shadows still exist behind this financial system. Among these, the worsening of public finance would be the potential threat to financial stability of Chinese Taipei. The measures of stabilization, NPL cleanup, protection against speculator and public investment extending need to be supported by healthy public finance conditions. Therefore, how to reverse the trend of public finance is a high priority for the government in order to establish a sound financial environment in Chinese Taipei.





Note: For the legend, see the one for Australia, p. 22

In July 1997, the Thai economy, one of the fastest-growing economies in the first half of 1990s, was caught in the middle of the most severe financial storm ever to hit the country. The demise of the long-standing fixed exchange rate regime sent shock waves through virtually all sectors of the economy. In the months that followed, thousands of companies went bust, millions of people found themselves out of work, and the financial system was on a brink of a systemic collapse.

The Thai crisis illustrates vividly how balance sheet deterioration in one sector of the economy can spill rapidly into other sectors via balance sheet linkages. Initially, an exchange rate shock caused the balance sheet of the unhedged corporate sector to deteriorate sharply and the inability of the sector to honor its ballooning debt obligation took a toll on the financial sector in the form of rising nonperforming loans. To prevent their asset portfolio from further deterioration, banks tightened lending, resulting in a severe credit crunch for otherwise viable firms. It took an international financial rescue package and tremendous fiscal resources to avert a complete meltdown of the economy. Public debt as a percentage of GDP more than quadrupled, partly as a result of the high cost of bailing out troubled financial institutions.

Seven years after the crisis broke out, the Thai economy has improved remarkably. Real GDP grew over 6 percent in both 2003 and 2004. The

economy is expected to continue to do well in 2005 despite adverse internal and external environments.

This study reviews post-crisis balance sheet evolution of the Thai economy across four key economic sectors, namely, government, banks, nonfinancial corporations and households, with emphasis on the assessment of maturity, currency and capital structure mismatches in the balance sheets of these sectors. The main finding reaffirms the strength of the current economic recovery seen in the traditional flow variables analysis. At the economywide level, external vulnerabilities have been significantly reduced. The economy's foreign currency financing gap, defined as total maturing foreign currency liabilities less liquid foreign assets, has turned negative (that is, there are more assets than liabilities). The ratio of external debt to GDP now stands at a level that was last seen in the early 1980s. Moreover, foreign reserves currently cover six months of imports and nearly four times short-term external debt.

At the sectoral level, all four sectors exhibit stronger balance sheet conditions. Public debt to GDP has fallen faster than expected. The banking system's NPL ratio now stands below one-third of its peak. In the corporate sector, many firms have completely restructured their balance sheets. The decrease in leverage, however, did not depress profitability which has now been back to the precrisis level. Meanwhile, improved consumer confi-

dence has resulted in a household consumption boom. In tandem with the improved fundamentals were announcements of credit upgrade one after another

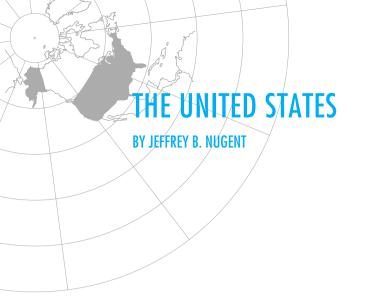
Despite these marked improvements, there remain several weak spots in Thailand's aggregate balance sheets. In the government sector, despite a marked reduction, public debt is still much higher than it was prior to the crisis. In the banking sector, a large overhang of NPLs still hampers banks' balance sheet and obstructs re-intermediation. In the corporate sector, foreign exchange exposures are still somewhat high. Finally, the sector with the strongest balance sheet, the household sector, has accumulated debt to levels that have caught the attention of many observers.

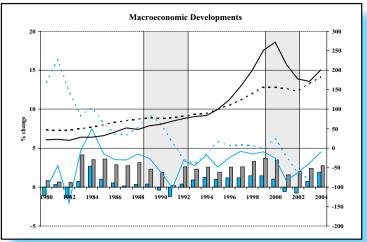
After reviewing the postcrisis evolution of Thailand's aggregate balance sheets, the study takes a few steps back to revisit how an asset price boom sowed the seed of the balance sheet distress problems. The key lies in the interplay between the property market, the financial sector and the rest of the economy. A lending boom gave rise to a speculative property market boom. Inflated property prices, in turn, allowed the real sector to load up excessive debt. The entire economy then hinged critically on development in the property market, putting it in a very precarious situation. Moreover, when the tide turned, massive fallout ensued. In this respect, the burst of the Thai bubble is similar to what has been documented in developed countries. The consequence here is much more devastating, however, for there was a significant degree of currency mismatches.

Poor balance sheet conditions directly constrain Thailand's macroeconomic policy management. Weaknesses in the banking system and the corporate sector impair both bank lending and traditional interest rate channels of monetary policy transmission, reducing the effectiveness of monetary policy. Large government liabilities, from financial restructuring costs and the fiscal deficits run by the government to stimulate the economy, tie down fiscal resources, leaving smaller room for countercyclical fiscal policy.

Thai policymakers, nevertheless, have found ways to get around the constraints imposed by the balance sheet distress. The policy employed by the authorities could have been described as a three-pronged strategy of macroeconomic policy management. The three prongs are: (i) unclogging the wheels of the monetary transmission mechanism through the restoration of financial system stability and corporate sector's strength; (ii) maintenance of price stability through inflation targeting; and (iii) calculated deployment of limited fiscal resources. This three-pronged macroeconomic management strategy has effectively helped the government to create a virtuous circle of economic recovery.

Still, the recovery process is not yet complete and much remains to be done for Thailand to have sustainable growth. First and foremost, balance sheet vulnerabilities will have to be reduced further. Debt restructuring and structural reforms must continue. At the same time, there is a need to ensure that the current economic euphoria does not lead to a new set of balance sheet weaknesses. To achieve this, policymakers must proactively assess and manage the risks to economic stability that often accompany continued high growth. Close coordination between macroeconomic policy and prudential regulation will be crucial. Only then will the future of the Thai economy be ensured.





Note: For the legend, see the one for Australia, p. 22

The United States was the first developed country in the postwar period to endure a major series of bank and savings and loan (S&L) failures. These failures began in the late 1970s and accelerated in the mid-1980s. Their causes included such factors as inappropriate incentives for financial institutions and regulators implicit in legislation, rapidly changing competitive conditions that disadvantaged S&Ls, and badly timed deregulation. The bank and S&L failures, in turn, led to bankruptcies in the institutions that insured depositors against such failures. The high costs of resolving these failures and protecting depositors, in turn, contributed to the large federal fiscal deficits of the mid- to late 1980s and to interest rates above those needed to satisfy macroeconomic targets. These crises were eventually overcome by initiating a series of institutional reforms.

After 1990 there were two additional, though less severe, financial crises. The first came from asset bubbles abroad, the bursting of which impaired the ability of foreign borrowers to repay U.S. banks, thus ushering in a credit crunch. The second occurred in 2000 as the IT bubble burst, resulting in a fairly severe decline in stock market prices between 2000 and 2002. In both these cases, however, conventional (expansionary) monetary and fiscal policies were largely sufficient to treat the problems. The one institutional change required during this latter period was a tightening of accounting standards and disclosure rules so as to reduce the misrepresentation of firms' net worth.

Analysis of the balance sheets of different institutions reflects the following trends over the period 1975-2000: (i) the shares of real estate, corporate equities and pension reserves in the asset holdings of households and nonprofit organizations were rising at the expense of checkable deposits, currency, time and savings deposits and government securities; (ii) the share of home mortgages in household liabilities was increasing; (iii) for nonfarm, nonfinancial corporate businesses, the share of financial assets in total assets was rising, as was that of corporate bonds in liabilities; (iv) for state and local governments, U.S. government bonds were rising relative to other assets, and municipal bonds were rising relative to other liabilities; (v) for the federal government, the growth of liabilities was almost twice as rapid as the growth of assets; and (vi) commercial banks were rising in importance relative to S&Ls in terms of both assets and liabilities, and especially with respect to residential mortgages and small time and savings deposits.

Perhaps like Japan in the 1990s, the U.S. resolution of the S&L crisis of the 1980s was painfully slow. In part this was because at first, the authorities believed the problem was temporary. However, it was also because both the managers of the financial institutions and the supervisory agencies had an incentive to wait and hope that the problems were temporary. These delays made the situation worse and prolonged the crisis. Yet, the strong social belief that households should have a viable

means of becoming homeowners had much to do with the eventual solution to the problem. The fact that the loan failures of the early 1990s and the sizable fall in stock market prices in the 2000–02 period were resolved relatively quickly through quick action of the monetary authorities suggest that some lessons of the earlier experience may have been learned.



Appendix Table. Macroeconomic Developments in the PECC Region, 1980-2004

Austraila	1980	1981	1982	1983	1984	1985	1986	1987	1988
real credit to private sector (1995=100)	26.74	27.67	27.83	28.97	33.11	41.76	46.14	49.57	57.22
share price index (1995=100)	31.04	31.40	24.05	31.20	35.45	44.32	59.79	83.28	72.39
investment contribution to GDP growth (%)	1.98	2.92	-0.78	-2.47	1.80	3.83	0.33	0.96	1.47
consumption contribution to GDP growth (%)	2.23	2.33	1.27	1.21	1.23	3.56	2.27	1.69	1.55
real GDP growth (%)	2.23	4.48	-0.08	-0.44	6.79	5.85	2.17	4.89	
money market interest rate (%)	9.49	12.07	13.90	9.50	10.84	14.70	15.75	13.06	4.70
money market interest rate (70)	3.43	12.07	13.90	9.50	10.04	14.70	13.73	13.00	11.90
China	1980	1981	1982	1983	1984	1985	1986	1987	1988
real credit to private sector (1995=100)	14.04	15.60	16.64	18.67	23.36	30.15	37.28	43.10	45.43
share price index (1995=100)									
investment contribution to GDP growth (%)	3.15	-2.05	4.27	4.00	6.37	5.60	3.50	5.26	3.59
consumption contribution to GDP growth (%)	6.07	4.95	3.49	5.63	6.43	10.06	3.53	5.54	8.26
real GDP growth (%)	8.09	4.62	8.54	10.47	14.99	17.11	9.38	12.06	12.64
Hong Kong, China	1980	1981	1982	1983	1984	1985	1986	1987	1988
real credit to private sector (1995=100)									
share price index (1995=100)									
investment contribution to GDP growth (%)	7.35	4.06	-1.61	-3.43	-0.32	-1.18	3.18	6.30	4.37
consumption contribution to GDP growth (%)	6.58	6.04	3.63	7.78	2.61	0.89	5.68	4.01	3.61
real GDP growth (%)	11.96	10.31	2.92	6.57	10.75	0.20	11.49	14.11	8.73
money market interest rate (%)								1	
Indonesia	1980	1981	1982	1983	1984	1985	1986	1987	1988
real credit to private sector (1995=100)	6.20	7.73	9.94	11.42	13.94	16.35	19.51	23.20	29.29
share price index (1995=100)									
investment contribution to GDP growth (%)	2.57	7.42	1.73	0.95	-1.08	1.36	2.81	2.17	2.97
consumption contribution to GDP growth (%)	7.14	-0.61	7.48	2.94	3.99	0.24	7.30	-1.32	2.92
real GDP growth (%)	12.76	9.39	2.36	5.00	7.55	2.63	6.24	5.45	6.35
money market interest rate (%)	12.87	16.26	17.24	13.17	18.63	10.33		14.52	15.00
Japan	1980	1981	1982	1983	1984	1985	1986	1987	1988
real credit to private sector (1995=100)	41.38	43.32	46.07	48.87	51.63	55.26	59.93	69.09	77.62
share price index (1995=100)	34.34	39.94	39.77	46.88	59.10	72.19	95.90	141.80	154.42
investment contribution to GDP growth (%)	1.22	-0.01	-0.30	-0.99	0.61	1.19	0.71	2.26	3.60
consumption contribution to GDP growth (%)	-1.51	0.82	2.72	1.53	0.89	2.14	1.29	2.14	2.89
real GDP growth (%)	3.85	3.12	2.72	1.68	3.18	5.16	3.0 6	3.75	6.85
money market interest rate (%)	10.93	7.43	6.94	6.39	6.10	6.46	4.79	3.51	3.62
money market interest rate (70)	10.95	7.45	0.94	0.55	0.10	0.40	4.73	3.31	3.02
Korea	1980	1981	1982	1983	1984	1985	1986	1987	1988
real credit to private sector (1995=100)	18.62	19.39	22.64	25.74	28.75	33.37	37.38	43.48	46.63
share price index (1995=100)	11.81	13.72	13.25	13.22	14.32	15.09	24.73	45.34	75.26
investment contribution to GDP growth (%)	-2.81	-2.39	2.71	4.62	2.12	1.44	2.84	4.47	4.02
consumption contribution to GDP growth (%)	1.68	4.41	3.61	4.00	3.62	3.51	2.70	3.26	2.19
real GDP growth (%) money market interest rate (%)	-2.60	7.62	7.76	11.34	8.71	6.77	11.53	11.60	11.25
	22.85	18.14	14.18	13.00	11.39	9.35	9.70	8.93	9.62

1986 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005	1000	1000	1001	1000	1002	1004	1005	1000	1007	1000	1000	0000	0001	0000	0000	0004
77.71 71.80 74.85 76.83 89.68 100.72 100.00 112.08 125.23 31.29 145.11 156.55 161.51 156.82 150.37 174.87 2.63 2.44 2.23 3.60 3.61 3.00 3.73 3.74 3.74 3.74 3.72 3.73 3.73 3.74 3.74 3.75 4.82 1.86 -0.60 1.97 3.89 4.87 3.55 4.42 3.92 5.33 4.25 3.32 2.55 4.07 3.48 3.35 16.75 14.81 10.47 6.44 5.11 5.18 7.50 7.20 5.55 4.99 4.78 5.90 5.06 4.55 4.81 5.25 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 49.81 57.08 64.13 72.81 91.17 91.71 100.00 116.71 139.05 165.18 188.59 210.10 228.96 270.47 322.87 -3.63 0.49 5.34 10.81 14.49 3.52 2.44 2.66 2.37 4.20 3.20 3.88 4.62 5.68 8.99 20.10 -0.11 3.30 6.93 3.78 5.60 7.40 6.00 3.57 3.78 4.21 4.34 3.05 3.22 2.87 4.38 4.11 9.78 15.15 15.85 15.21 11.91 10.22 8.87 7.64 6.95 8.00 9.89 10.20 11.46 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 1988 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 1988 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
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1.36		90.52	80.28	80.70	89.10	98.23	100.00		123.56	112.77	105.74	112.43	111.84	110.79	110.55	115.19
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-0.02 5.84 4.96 0.70 12.28 6.23 7.89 6.22 2.48 -5.39 8.40 -3.36 2.64 5.25 3.08 8.34 7.93 7.70 6.86 7.12 8.13 9.03 8.50 5.29 -23.01 0.90 5.39 3.82 3.87 4.78 12.57 13.97 14.91 11.99 8.66 9.74 13.64 13.96 27.82 62.79 23.58 10.32 15.03 13.54 7.76 5.38 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 85.22 91.40 94.15 96.84 97.40 98.85 100.00 102.50 97.09 97.19 99.93 96.14 93.02 87.10 186.06 157.15 133.44 98.81 110.38 115.83 100.00 116.30 101.04 85.36 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>100.00</td> <td>118.07</td> <td>120.35</td> <td>83.97</td> <td>108.98</td> <td>99.05</td> <td>81.35</td> <td>90.75</td> <td>103.31</td> <td>161.56</td>							100.00	118.07	120.35	83.97	108.98	99.05	81.35	90.75	103.31	161.56
8.34 7.93 7.70 6.86 7.12 8.13 9.03 8.50 5.29 -23.01 0.90 5.39 3.82 3.87 4.78 12.57 13.97 14.91 11.99 8.66 9.74 13.64 13.96 27.82 62.79 23.58 10.32 15.03 13.54 7.76 5.38 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 85.22 91.40 94.15 96.84 97.40 98.85 100.00 102.50 97.09 97.19 99.93 96.14 93.02 87.10 186.06 157.15 133.44 98.81 110.38 115.83 100.00 116.30 101.04 85.36 100.36 112.02 86.54 70.27 66.50 2.74 3.25 0.59 -0.97 -1.12 -0.68 0.01 1.70 0.12	4.11	3.37	1.89	0.96	0.78	3.81	3.62	3.95	0.04	-9.79	-4.64		0.84	-0.83	0.37	
12.57 13.97 14.91 11.99 8.66 9.74 13.64 13.96 27.82 62.79 23.58 10.32 15.03 13.54 7.76 5.38 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 85.22 91.40 94.15 96.84 97.40 98.85 100.00 102.50 97.09 97.19 99.93 96.14 93.02 87.10 186.06 157.15 133.44 98.81 110.38 115.83 100.00 116.30 101.04 85.36 100.36 112.02 86.54 70.27 66.50 2.74 3.25 0.59 -0.97 -1.12 -0.68 0.01 1.70 0.12 -1.43 -0.47 0.75 -0.46 -1.59 0.33 2.65 2.75 1.44 1.39 0.97 1.75 1.11 1.85 0.85 <t< td=""><td>-0.02</td><td>5.84</td><td>4.96</td><td>0.70</td><td>12.28</td><td>6.23</td><td>7.89</td><td>6.22</td><td>2.48</td><td>-5.39</td><td>8.40</td><td>-3.36</td><td>2.64</td><td>5.25</td><td>3.08</td><td></td></t<>	-0.02	5.84	4.96	0.70	12.28	6.23	7.89	6.22	2.48	-5.39	8.40	-3.36	2.64	5.25	3.08	
1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 85.22 91.40 94.15 96.84 97.40 98.85 100.00 102.50 97.09 97.19 99.93 96.14 93.02 87.10 186.06 157.15 133.44 98.81 110.38 115.83 100.00 116.30 101.04 85.36 100.36 112.02 86.54 70.27 66.50 2.74 3.25 0.59 -0.97 -1.12 -0.68 0.01 1.70 0.12 -1.43 -0.47 0.75 -0.46 -1.59 0.33 2.65 2.75 1.44 1.39 0.97 1.75 1.11 1.85 0.85 -0.09 0.60 0.94 0.88 0.34 1.12 5.39 5.37 3.43 0.97 0.20 1.13 1.87 3.58 1.79 -1.18 0.19 <td>8.34</td> <td>7.93</td> <td>7.70</td> <td>6.86</td> <td>7.12</td> <td>8.13</td> <td>9.03</td> <td>8.50</td> <td>5.29</td> <td>-23.01</td> <td>0.90</td> <td>5.39</td> <td>3.82</td> <td>3.87</td> <td>4.78</td> <td></td>	8.34	7.93	7.70	6.86	7.12	8.13	9.03	8.50	5.29	-23.01	0.90	5.39	3.82	3.87	4.78	
85.22 91.40 94.15 96.84 97.40 98.85 100.00 102.50 97.09 97.19 99.93 96.14 93.02 87.10 186.06 157.15 133.44 98.81 110.38 115.83 100.00 116.30 101.04 85.36 100.36 112.02 86.54 70.27 66.50 2.74 3.25 0.59 -0.97 -1.12 -0.68 0.01 1.70 0.12 -1.43 -0.47 0.75 -0.46 -1.59 0.33 2.65 2.75 1.44 1.39 0.97 1.75 1.11 1.85 0.85 -0.09 0.60 0.94 0.88 0.34 1.12 5.39 5.37 3.43 0.97 0.20 1.13 1.87 3.58 1.79 -1.18 0.19 2.81 0.39 -0.49 2.44 4.87 7.24 7.46 4.58 3.06 2.20 1.21 0.47 0.48 0.37 0.06 0.11 <td>12.57</td> <td>13.97</td> <td>14.91</td> <td>11.99</td> <td>8.66</td> <td>9.74</td> <td>13.64</td> <td>13.96</td> <td>27.82</td> <td>62.79</td> <td>23.58</td> <td>10.32</td> <td>15.03</td> <td>13.54</td> <td>7.76</td> <td>5.38</td>	12.57	13.97	14.91	11.99	8.66	9.74	13.64	13.96	27.82	62.79	23.58	10.32	15.03	13.54	7.76	5.38
85.22 91.40 94.15 96.84 97.40 98.85 100.00 102.50 97.09 97.19 99.93 96.14 93.02 87.10 186.06 157.15 133.44 98.81 110.38 115.83 100.00 116.30 101.04 85.36 100.36 112.02 86.54 70.27 66.50 2.74 3.25 0.59 -0.97 -1.12 -0.68 0.01 1.70 0.12 -1.43 -0.47 0.75 -0.46 -1.59 0.33 2.65 2.75 1.44 1.39 0.97 1.75 1.11 1.85 0.85 -0.09 0.60 0.94 0.88 0.34 1.12 5.39 5.37 3.43 0.97 0.20 1.13 1.87 3.58 1.79 -1.18 0.19 2.81 0.39 -0.49 2.44 4.87 7.24 7.46 4.58 3.06 2.20 1.21 0.47 0.48 0.37 0.06 0.11 <td></td>																
186.06 157.15 133.44 98.81 110.38 115.83 100.00 116.30 101.04 85.36 100.36 112.02 86.54 70.27 66.50 2.74 3.25 0.59 -0.97 -1.12 -0.68 0.01 1.70 0.12 -1.43 -0.47 0.75 -0.46 -1.59 0.33 2.65 2.75 1.44 1.39 0.97 1.75 1.11 1.85 0.85 -0.09 0.60 0.94 0.88 0.34 1.12 5.39 5.37 3.43 0.97 0.20 1.13 1.87 3.58 1.79 -1.18 0.19 2.81 0.39 -0.49 2.44 4.87 7.24 7.46 4.58 3.06 2.20 1.21 0.47 0.48 0.37 0.06 0.11 0.06 0.01 0.00 0.00 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
2.74 3.25 0.59 -0.97 -1.12 -0.68 0.01 1.70 0.12 -1.43 -0.47 0.75 -0.46 -1.59 0.33 2.65 2.75 1.44 1.39 0.97 1.75 1.11 1.85 0.85 -0.09 0.60 0.94 0.88 0.34 1.12 5.39 5.37 3.43 0.97 0.20 1.13 1.87 3.58 1.79 -1.18 0.19 2.81 0.39 -0.49 2.44 4.87 7.24 7.46 4.58 3.06 2.20 1.21 0.47 0.48 0.37 0.06 0.11 0.06 0.01 0.00 0.00 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 55.46 64.47 70.85 74.30 80.31 90.38 100.00 114.16 131.96 132.41	85.22	91.40	94.15	96.84	97.40	98.85	100.00	102.50	97.09	97.19	99.93	96.14	93.02	87.10		
2.65 2.75 1.44 1.39 0.97 1.75 1.11 1.85 0.85 -0.09 0.60 0.94 0.88 0.34 1.12 5.39 5.37 3.43 0.97 0.20 1.13 1.87 3.58 1.79 -1.18 0.19 2.81 0.39 -0.49 2.44 4.87 7.24 7.46 4.58 3.06 2.20 1.21 0.47 0.48 0.37 0.06 0.11 0.06 0.01 0.00 0.00 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 55.46 64.47 70.85 74.30 80.31 90.38 100.00 114.16 131.96 132.41 156.21 180.59 197.20 229.71 241.15 235.85 99.74 81.11 71.35 63.75 79.67 105.09 100.00 90.30 <	186.06	157.15	133.44	98.81	110.38	115.83	100.00	116.30	101.04	85.36	100.36	112.02	86.54	70.27	66.50	
5.39 5.37 3.43 0.97 0.20 1.13 1.87 3.58 1.79 -1.18 0.19 2.81 0.39 -0.49 2.44 4.87 7.24 7.46 4.58 3.06 2.20 1.21 0.47 0.48 0.37 0.06 0.11 0.06 0.01 0.00 0.00 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 55.46 64.47 70.85 74.30 80.31 90.38 100.00 114.16 131.96 132.41 156.21 180.59 197.20 229.71 241.15 235.85 99.74 81.11 71.35 63.75 79.67 105.09 100.00 90.30 70.89 44.36 87.04 79.50 62.22 82.25 73.84 90.52 4.86 10.88 6.19 -0.06 1.51 3.45 4.75	2.74	3.25	0.59	-0.97	-1.12	-0.68	0.01	1.70	0.12	-1.43	-0.47	0.75	-0.46	-1.59	0.33	
4.87 7.24 7.46 4.58 3.06 2.20 1.21 0.47 0.48 0.37 0.06 0.11 0.06 0.01 0.00 0.00 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 55.46 64.47 70.85 74.30 80.31 90.38 100.00 114.16 131.96 132.41 156.21 180.59 197.20 229.71 241.15 235.85 99.74 81.11 71.35 63.75 79.67 105.09 100.00 90.30 70.89 44.36 87.04 79.50 62.22 82.25 73.84 90.52 4.86 10.88 6.19 -0.06 1.51 3.45 4.75 2.95 -0.20 -6.63 2.15 4.22 -0.41 1.59 1.85 0.97 5.72 5.50 5.35 3.82 1.53 5.76	2.65	2.75	1.44	1.39	0.97	1.75	1.11	1.85	0.85	-0.09	0.60	0.94	0.88	0.34	1.12	
1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 55.46 64.47 70.85 74.30 80.31 90.38 100.00 114.16 131.96 132.41 156.21 180.59 197.20 229.71 241.15 235.85 99.74 81.11 71.35 63.75 79.67 105.09 100.00 90.30 70.89 44.36 87.04 79.50 62.22 82.25 73.84 90.52 4.86 10.88 6.19 -0.06 1.51 3.45 4.75 2.95 -0.20 -6.63 2.15 4.22 -0.41 1.59 1.85 0.97 5.72 5.50 5.35 3.82 1.53 5.76 5.12 4.31 2.57 -6.65 7.91 6.94 3.55 4.53 -0.32 0.16 6.43 9.94 10.23 5.85 6.16 9.21 </td <td>5.39</td> <td>5.37</td> <td>3.43</td> <td>0.97</td> <td>0.20</td> <td>1.13</td> <td>1.87</td> <td>3.58</td> <td>1.79</td> <td>-1.18</td> <td>0.19</td> <td>2.81</td> <td>0.39</td> <td>-0.49</td> <td>2.44</td> <td></td>	5.39	5.37	3.43	0.97	0.20	1.13	1.87	3.58	1.79	-1.18	0.19	2.81	0.39	-0.49	2.44	
55.46 64.47 70.85 74.30 80.31 90.38 100.00 114.16 131.96 132.41 156.21 180.59 197.20 229.71 241.15 235.85 99.74 81.11 71.35 63.75 79.67 105.09 100.00 90.30 70.89 44.36 87.04 79.50 62.22 82.25 73.84 90.52 4.86 10.88 6.19 -0.06 1.51 3.45 4.75 2.95 -0.20 -6.63 2.15 4.22 -0.41 1.59 1.85 0.97 5.72 5.50 5.35 3.82 1.53 5.76 5.12 4.31 2.57 -6.65 7.91 6.94 3.55 4.53 -0.32 0.16 6.43 9.94 10.23 5.85 6.16 9.21 9.85 7.36 4.87 -7.25 9.48 8.55 3.97 7.17 3.18 4.77	4.87	7.24	7.46	4.58	3.06	2.20	1.21	0.47	0.48	0.37	0.06	0.11	0.06	0.01	0.00	0.00
55.46 64.47 70.85 74.30 80.31 90.38 100.00 114.16 131.96 132.41 156.21 180.59 197.20 229.71 241.15 235.85 99.74 81.11 71.35 63.75 79.67 105.09 100.00 90.30 70.89 44.36 87.04 79.50 62.22 82.25 73.84 90.52 4.86 10.88 6.19 -0.06 1.51 3.45 4.75 2.95 -0.20 -6.63 2.15 4.22 -0.41 1.59 1.85 0.97 5.72 5.50 5.35 3.82 1.53 5.76 5.12 4.31 2.57 -6.65 7.91 6.94 3.55 4.53 -0.32 0.16 6.43 9.94 10.23 5.85 6.16 9.21 9.85 7.36 4.87 -7.25 9.48 8.55 3.97 7.17 3.18 4.77																
99.74 81.11 71.35 63.75 79.67 105.09 100.00 90.30 70.89 44.36 87.04 79.50 62.22 82.25 73.84 90.52 4.86 10.88 6.19 -0.06 1.51 3.45 4.75 2.95 -0.20 -6.63 2.15 4.22 -0.41 1.59 1.85 0.97 5.72 5.50 5.35 3.82 1.53 5.76 5.12 4.31 2.57 -6.65 7.91 6.94 3.55 4.53 -0.32 0.16 6.43 9.94 10.23 5.85 6.16 9.21 9.85 7.36 4.87 -7.25 9.48 8.55 3.97 7.17 3.18 4.77	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
99.74 81.11 71.35 63.75 79.67 105.09 100.00 90.30 70.89 44.36 87.04 79.50 62.22 82.25 73.84 90.52 4.86 10.88 6.19 -0.06 1.51 3.45 4.75 2.95 -0.20 -6.63 2.15 4.22 -0.41 1.59 1.85 0.97 5.72 5.50 5.35 3.82 1.53 5.76 5.12 4.31 2.57 -6.65 7.91 6.94 3.55 4.53 -0.32 0.16 6.43 9.94 10.23 5.85 6.16 9.21 9.85 7.36 4.87 -7.25 9.48 8.55 3.97 7.17 3.18 4.77	55.46															235.85
4.86 10.88 6.19 -0.06 1.51 3.45 4.75 2.95 -0.20 -6.63 2.15 4.22 -0.41 1.59 1.85 0.97 5.72 5.50 5.35 3.82 1.53 5.76 5.12 4.31 2.57 -6.65 7.91 6.94 3.55 4.53 -0.32 0.16 6.43 9.94 10.23 5.85 6.16 9.21 9.85 7.36 4.87 -7.25 9.48 8.55 3.97 7.17 3.18 4.77			71.35	63.75		105.09		90.30	70.89	44.36	87.04	79.50	62.22			
6.43 9.94 10.23 5.85 6.16 9.21 9.85 7.36 4.87 -7.25 9.48 8.55 3.97 7.17 3.18 4.77		10.88	6.19	-0.06	1.51	3.45	4.75	2.95	-0.20	-6.63	2.15	4.22	-0.41		1.85	0.97
6.43 9.94 10.23 5.85 6.16 9.21 9.85 7.36 4.87 -7.25 9.48 8.55 3.97 7.17 3.18 4.77	5.72	5.50	5.35	3.82	1.53	5.76	5.12	4.31	2.57	-6.65	7.91	6.94	3.55	4.53	-0.32	0.16
13.28 14.03 17.03 14.32 12.12 12.45 12.57 12.44 13.24 14.98 5.01 5.16 4.69 4.21 4.00 3.65	6.43	9.94	10.23	5.85	6.16	9.21	9.85	7.36	4.87	-7.25	9.48	8.55	3.97	7.17	3.18	4.77
	13.28	14.03	17.03	14.32	12.12	12.45	12.57	12.44	13.24	14.98	5.01	5.16	4.69	4.21	4.00	3.65

Appendix Table. Macroeconomic Developments in the PECC Region, 1980-2004, continued

real credit to private sector (1995=100)	New Zealand	1980	1981	1982	1983	1984	1985	1986	1987	1988
Share price index (1995=100)										
investment contribution to GDP growth (%) consumption contribution to GDP growth (%) 1.63 1.55 1.67 1.27 2.42 3.90 1.75 2.40 3.80 1.75 2.40 3.80 1.75 2.40 3.80 1.75 2.40 3.80 1.75 2.40 3.80 1.75 2.40 3.80 1.75 2.40 3.80 1.75 2.40 3.80 1.75 2.47 1.70 21.32 15.27 The Philippines 1980 1981 1980 1981 1982 1983 1984 1985 1986 1987 1988 real credit to private sector (1995=100) 58.04 18.19 18.40 18.50 18.40 18.50 18.40 18.50 18.40 18.50 18.40 18.50 18.40 18.50 18.50 18.40 18.50 18.40 18.50 18.	, ,									
Consumption contribution to GDP growth (%)	,									
Teal GDP growth (%)										
The Philippines 1980 1981 1982 1983 1984 1985 1986 1987 1988 1987 1988 1987 1988 1987 1988 1987 1988										
The Philippines		1.20	3.00	0.02	0.00	3.01				
real credit to private sector (1995=100)	money market merest rate (70)						27.17	11.70	21.02	10.27
share price index (1995=100)	The Philippines	1980	1981	1982	1983	1984	1985	1986	1987	1988
Investment contribution to GDP growth (%) 3.07 1.69 0.84 3.56 -10.04 -6.56 0.13 1.29 2.95	real credit to private sector (1995=100)	58.04	61.94	65.14	79.54	51.09	37.16	29.32	34.31	36.11
Consumption contribution to GDP growth (%)	share price index (1995=100)	7.73	6.74	5.52	5.49	4.86	4.32	20.32	46.93	48.99
Peal GDP growth (%)	investment contribution to GDP growth (%)	3.07	1.69	0.84	3.56	-10.04	-6.56	0.13	1.29	2.95
Singapore	consumption contribution to GDP growth (%)	0.28	2.62	3.89	-0.07	-0.55	-1.08	1.96	0.71	4.33
Singapore	real GDP growth (%)	5.49	3.82	3.93	2.14	-11.23	-8.59	3.52	4.63	7.40
real credit to private sector (1995=100)	money market interest rate (%)	11.88	15.36	12.26	16.56	28.32	16.85	12.18	11.84	14.16
real credit to private sector (1995=100)										
share price index (1995=100) investment contribution to GDP growth (%) share price index (1995=100) investment contribution to GDP growth (%) share price index (1995=100) share price index (Singapore	1980	1981	1982	1983	1984	1985	1986	1987	1988
investment contribution to GDP growth (%)	real credit to private sector (1995=100)	23.00	27.28	31.25	36.96	39.37	39.39	38.48	40.74	44.60
Consumption contribution to GDP growth (%) 1.73 2.10 1.15 0.92 3.41 0.50 2.93 5.10 5.83	share price index (1995=100)						33.86	35.05	53.89	45.80
Thailand	investment contribution to GDP growth (%)	9.85	8.12	8.11	4.14	4.22	-5.44	-4.52	0.02	0.94
Chinese Taipei	consumption contribution to GDP growth (%)	1.73	2.10	1.15	0.92	3.41	0.50	2.93	5.10	5.83
Chinese Taipei 1980 1981 1982 1983 1984 1985 1986 1987 1988 real credit to private sector (1995=100) 21.1 22.4 27.1 37.9 45.3 50.5 59.1 72.8 84.4 share price index (1997=100) 1 2.2.4 27.1 37.9 45.3 50.5 59.1 72.8 84.4 share price index (1997=100) 3.09 3.66 5.54 6.70 6.72 4.28 4.03 4.99 4.59 real GDP growth (%) 5.0 11.6 12.7 7.8 8.2 5.4 7.6 7.5 7.0 money market interest rate (%) 5.0 11.6 12.7 7.8 8.2 5.4 7.6 7.5 7.0 Thailand 1980 1981 1982 1983 1984 1985 1986 1987 1988 Thailand 1980 1981 1982 1983 1984 1985 1986 1987 1	real GDP growth (%)	10.80	10.25	7.15	8.51	8.36	-1.60	2.27	7.58	12.30
real credit to private sector (1995=100) 21.1 22.4 27.1 37.9 45.3 50.5 59.1 72.8 84.4 share price index (1997=100)	money market interest rate (%)	10.98	11.54	7.92	7.11	7.67	5.38	4.27	3.89	4.30
real credit to private sector (1995=100) 21.1 22.4 27.1 37.9 45.3 50.5 59.1 72.8 84.4 share price index (1997=100)										
Share price index (1997=100) Investment contribution to GDP growth (%) -1.41 1.11 6.20 5.04 1.82 1.08 2.62 4.95 2.72	Chinese Taipei	1980	1981	1982	1983	1984	1985	1986	1987	1988
investment contribution to GDP growth (%) -1.41 -1.11 -1.11 -1.11 -1.12 -1.02 -1.03 -1.04 -1.08	real credit to private sector (1995=100)	21.1	22.4	27.1	37.9	45.3	50.5	59.1	72.8	84.4
Consumption contribution to GDP growth (%) 3.09 3.66 5.54 6.70 6.72 4.28 4.03 4.99 4.59 real GDP growth (%) 5.0 11.6 12.7 7.8 8.2 5.4 7.6 7.5 7.0 Thailand 1980 1981 1982 1983 1984 1985 1986 1987 1988 real credit to private sector (1995=100) 8.98 9.40 10.54 13.19 15.02 16.11 16.54 19.36 24.12 share price index (1995=100) 4.35 2.04 0.40 3.41 1.82 -0.17 0.04 5.04 8.37 consumption contribution to GDP growth (%) 3.91 3.99 1.72 5.48 2.20 1.46 2.57 4.53 4.19 real GDP growth (%) 5.41 6.40 5.62 5.79 5.84 4.75 5.63 9.97 14.07 money market interest rate (%) 14.66 17.25 14.95	share price index (1997=100)									
real GDP growth (%) 5.0 11.6 12.7 7.8 8.2 5.4 7.6 7.5 7.0 money market interest rate (%) Thailand 1980 1981 1982 1983 1984 1985 1986 1987 1988 real credit to private sector (1995=100) 8.98 9.40 10.54 13.19 15.02 16.11 16.54 19.36 24.12 share price index (1995=100) 4.35 2.04 0.40 3.41 1.82 -0.17 0.04 5.04 8.37 consumption contribution to GDP growth (%) 3.91 3.99 1.72 5.48 2.20 1.46 2.57 4.53 4.19 real GDP growth (%) 5.41 6.40 5.62 5.79 5.84 4.75 5.63 9.97 14.07 money market interest rate (%) 14.66 17.25 14.95 12.15 13.58 13.48 8.07 5.91 8.66 The United States 1980 1981 1982 1983	investment contribution to GDP growth (%)	-1.41	1.11	6.20	5.04	1.82	1.08	2.62	4.95	
Thailand		- i	3.66	5.54			4.28		4.99	
Thailand 1980 1981 1982 1983 1984 1985 1986 1987 1988 real credit to private sector (1995=100) 8.98 9.40 10.54 13.19 15.02 16.11 16.54 19.36 24.12 share price index (1995=100)	real GDP growth (%)	5.0	11.6	12.7	7.8	8.2	5.4	7.6	7.5	7.0
real credit to private sector (1995=100)	money market interest rate (%)									
real credit to private sector (1995=100)	Thettend	1000	1001	1000	1000	1004	1005	1000	1007	1000
share price index (1995=100) 4.35 2.04 0.40 3.41 1.82 -0.17 0.04 5.04 8.37 consumption contribution to GDP growth (%) 3.91 3.99 1.72 5.48 2.20 1.46 2.57 4.53 4.19 real GDP growth (%) 5.41 6.40 5.62 5.79 5.84 4.75 5.63 9.97 14.07 money market interest rate (%) 14.66 17.25 14.95 12.15 13.58 13.48 8.07 5.91 8.66 The United States 1980 1981 1982 1983 1984 1985 1986 1987 1988 real credit to private sector (1995=100) 46.66 45.01 45.99 50.43 53.93 60.51 66.87 70.50 74.36 share price index (1995=100) 20.97 22.48 20.82 28.13 28.25 32.38 40.86 51.57 47.80 investment contribution to GDP growth (%) -1.07 0.31		_								
investment contribution to GDP growth (%) d.35		8.98	9.40	10.54	13.19	15.02	10.11	10.54	19.36	
Consumption contribution to GDP growth (%) 3.91 3.99 1.72 5.48 2.20 1.46 2.57 4.53 4.19 real GDP growth (%) 5.41 6.40 5.62 5.79 5.84 4.75 5.63 9.97 14.07 money market interest rate (%) 14.66 17.25 14.95 12.15 13.58 13.48 8.07 5.91 8.66 The United States 1980 1981 1982 1983 1984 1985 1986 1987 1988 real credit to private sector (1995=100) 46.66 45.01 45.99 50.43 53.93 60.51 66.87 70.50 74.36 share price index (1995=100) 20.97 22.48 20.82 28.13 28.25 32.38 40.86 51.57 47.80 investment contribution to GDP growth (%) -1.07 0.31 -1.36 0.70 2.69 0.99 0.49 0.09 0.31 consumption contribution to GDP growth (%) -1.07		4.25	2.04	0.40	2 41	1 00	0.17	0.04	E 04	0.27
real GDP growth (%) 5.41 6.40 5.62 5.79 5.84 4.75 5.63 9.97 14.07 money market interest rate (%) 14.66 17.25 14.95 12.15 13.58 13.48 8.07 5.91 8.66 The United States 1980 1981 1982 1983 1984 1985 1986 1987 1988 real credit to private sector (1995=100) 46.66 45.01 45.99 50.43 53.93 60.51 66.87 70.50 74.36 share price index (1995=100) 20.97 22.48 20.82 28.13 28.25 32.38 40.86 51.57 47.80 investment contribution to GDP growth (%) -1.07 0.31 -1.36 0.70 2.69 0.99 0.49 0.09 0.31 consumption contribution to GDP growth (%) 0.81 0.67 0.58 4.09 3.52 3.63 2.85 2.74 3.13 real GDP growth (%) -0.25	Ğ ,									
The United States 1980 1981 1982 1983 1984 1985 1986 1987 1988 real credit to private sector (1995=100) 46.66 45.01 45.99 50.43 53.93 60.51 66.87 70.50 74.36 share price index (1995=100) 20.97 22.48 20.82 28.13 28.25 32.38 40.86 51.57 47.80 investment contribution to GDP growth (%) -1.07 0.31 -1.36 0.70 2.69 0.99 0.49 0.09 0.31 consumption contribution to GDP growth (%) 0.81 0.67 0.58 4.09 3.52 3.63 2.85 2.74 3.13 real GDP growth (%) -0.25 2.76 -2.05 4.70 7.46 4.26 3.54 3.47 4.27										
The United States 1980 1981 1982 1983 1984 1985 1986 1987 1988 real credit to private sector (1995=100) 46.66 45.01 45.99 50.43 53.93 60.51 66.87 70.50 74.36 share price index (1995=100) 20.97 22.48 20.82 28.13 28.25 32.38 40.86 51.57 47.80 investment contribution to GDP growth (%) -1.07 0.31 -1.36 0.70 2.69 0.99 0.49 0.09 0.31 consumption contribution to GDP growth (%) 0.81 0.67 0.58 4.09 3.52 3.63 2.85 2.74 3.13 real GDP growth (%) -0.25 2.76 -2.05 4.70 7.46 4.26 3.54 3.47 4.27										
real credit to private sector (1995=100) 46.66 45.01 45.99 50.43 53.93 60.51 66.87 70.50 74.36 share price index (1995=100) 20.97 22.48 20.82 28.13 28.25 32.38 40.86 51.57 47.80 investment contribution to GDP growth (%) -1.07 0.31 -1.36 0.70 2.69 0.99 0.49 0.09 0.31 consumption contribution to GDP growth (%) 0.81 0.67 0.58 4.09 3.52 3.63 2.85 2.74 3.13 real GDP growth (%) -0.25 2.76 -2.05 4.70 7.46 4.26 3.54 3.47 4.27	money market interest rate (70)	14.00	17.25	14.33	12.13	10.50	10.40	0.07	0.01	
real credit to private sector (1995=100) 46.66 45.01 45.99 50.43 53.93 60.51 66.87 70.50 74.36 share price index (1995=100) 20.97 22.48 20.82 28.13 28.25 32.38 40.86 51.57 47.80 investment contribution to GDP growth (%) -1.07 0.31 -1.36 0.70 2.69 0.99 0.49 0.09 0.31 consumption contribution to GDP growth (%) 0.81 0.67 0.58 4.09 3.52 3.63 2.85 2.74 3.13 real GDP growth (%) -0.25 2.76 -2.05 4.70 7.46 4.26 3.54 3.47 4.27	The United States	1980	1981	1982	1983	1984	1985	1986	1987	1988
share price index (1995=100) 20.97 22.48 20.82 28.13 28.25 32.38 40.86 51.57 47.80 investment contribution to GDP growth (%) -1.07 0.31 -1.36 0.70 2.69 0.99 0.49 0.09 0.31 consumption contribution to GDP growth (%) 0.81 0.67 0.58 4.09 3.52 3.63 2.85 2.74 3.13 real GDP growth (%) -0.25 2.76 -2.05 4.70 7.46 4.26 3.54 3.47 4.27	real credit to private sector (1995=100)									
investment contribution to GDP growth (%) -1.07 0.31 -1.36 0.70 2.69 0.99 0.49 0.09 0.31 consumption contribution to GDP growth (%) 0.81 0.67 0.58 4.09 3.52 3.63 2.85 2.74 3.13 real GDP growth (%) -0.25 2.76 -2.05 4.70 7.46 4.26 3.54 3.47 4.27										
consumption contribution to GDP growth (%) 0.81 0.67 0.58 4.09 3.52 3.63 2.85 2.74 3.13 real GDP growth (%) -0.25 2.76 -2.05 4.70 7.46 4.26 3.54 3.47 4.27			0.31							
real GDP growth (%) -0.25 2.76 -2.05 4.70 7.46 4.26 3.54 3.47 4.27		0.81	0.67	0.58	4.09	3.52	3.63	2.85	2.74	
money market interest rate (%) 13.36 16.38 12.26 9.09 10.23 8.10 6.81 6.66 7.57	real GDP growth (%)	-0.25	2.76	-2.05	4.70	7.46	4.26	3.54	3.47	4.27
	money market interest rate (%)	13.36	16.38	12.26	9.09	10.23	8.10	6.81	6.66	7.57

Source: IMF, International Financial Statistics, CD-ROM.

1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
73.34	72.24	74.43	80.78	84.28	90.87	100.00	108.66	119.36	125.61	136.71	141.33	146.78	153.29	165.79	180.15
64.52	56.77	49.89	57.07	74.85	94.83	100.00	112.34	130.70	153.33	136.36	139.50	146.94	161.62	179.40	228.58
0.71	-0.93	-2.93	0.48	3.29	3.32	2.03	0.71	-0.43	-0.97	2.01	-0.27	1.78	1.34	2.20	1.24
1.01	2.07	-0.73	-0.13	1.64	3.62	2.30	2.89	2.06	2.50	1.94	0.52	0.77	3.98	1.88	-0.05
0.22	0.00	-1.16	1.02	6.38	5.23	3.84	3.28	2.77	1.01	5.20	2.07	4.60	4.27	3.49	1.41
13.40	13.42	9.94	6.63	6.25	6.13	8.91	9.38	7.38	6.86	4.33	6.12	5.76	5.40	5.33	5.77
10.40	10.42	3.34	0.00	0.23	0.10	0.31	9.00	7.50	0.00	4.00	0.12	3.70	3.40	3.00	5.11
1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
40.43	46.14	41.77	48.21	62.95	73.47	100.00	138.32	168.71	144.16	132.92	134.73	123.91	121.25	118.49	122.16
70.07	61.42	64.37	75.54	89.61	112.19	100.00	97.43	84.86	56.41	87.14	81.69	52.63	39.56	33.35	47.27
5.50	3.75	-3.22	1.07	4.07	0.98	-0.40	2.94	2.50	-3.24	-1.38	3.53	-2.34	0.54	-0.05	0.81
5.03	3.68	2.16	2.48	2.52	1.59	3.42	3.92	3.07	1.43	0.83	-0.21	3.63	2.73	3.56	3.20
6.77	3.43	-0.67	0.36	2.26	4.83	5.03	6.29	5.51	-0.64	3.67	4.34	3.56	5.72	5.09	5.36
15.06	14.93	15.66	16.58	13.77	13.99	11.93	12.77	16.16	13.90	10.16	10.84	9.75	7.15	6.97	7.05
1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
52.09	57.62	62.62	67.22	75.67	84.59	100.00	114.24	126.20	136.63	132.51	138.46	159.46	146.24	153.43	2007
60.03	62.16	65.36	66.76	85.69	105.78	100.00	110.67	102.18	68.33	109.19	114.64	92.50	87.86	83.66	
5.20	3.01	3.86	4.52	3.57	2.64	2.61	8.76	4.12	-1.38	-1.32	-0.98	-0.73	-2.87	-0.59	
4.16	3.09	1.75	2.94	5.63		0.80	2.27	2.67		5.16	4.22		0.94	-0.17	
					3.96				-1.49			2.29			
10.07	10.13	6.74	6.83	12.67	11.71	8.21	8.23	8.58	-0.92	6.54	10.10	-1.87	2.16	1.09	4.04
5.34	6.61	4.76	2.74	2.50	3.68	2.56	2.93	4.35	5.00	2.04	2.57	1.99	0.96	0.74	1.04
1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
94.2	100.0	102.8	110.0	116.6	118.4	118.9	114.5	110.8	102.02	86.27	73.99	67.96	75.88	81.37	82.18
								100.00	92.00	88.30	93.30	58.35	62.13	61.4	71.7
1.64	1.36	0.77	3.43	1.92	-0.42	0.80	-4.13	0.13	-9.95	-0.56	2.33	1.65	1.03	3.07	3.74
4.93	3.31	3.86	4.31	3.89	3.26	3.05	0.66	1.20	-6.71	4.27	2.87	2.51	2.94	3.43	2.46
7.1	6.4	6.1	6.7	4.6	5.4	5.9	-2.2	3.5	-11.48	4.27	4.81	2.21	5.37	7.00	6.33
									6.56	4.77	4.73	3.69	2.05	1.10	1.06
1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
30.58	39.33	45.63	54.73	66.95	83.81	100.00			102.02	86.27	73.99	67.96	75.88	81.37	82.18
30.36	J8.JJ	40.03	54.73	00.93	00.01	100.00	109.50	100.00	59.59	70.90	57.67		61.73	81.26	111.75
0.77	12.67	E 0E	0.70	2 74	A 01	5 20	2 50					51.11			
9.77		5.25	0.79	3.74	4.21	5.32	2.50	-6.62	-9.95	-0.56	2.33	1.65	1.03	3.07	3.74
5.73	7.95	3.21	4.39	4.55	4.31	4.28	3.98	0.14	-6.71	4.27	2.87	2.51	2.94	3.43	2.46
12.94	11.81	9.05	8.45	8.52	9.46	9.75	6.14	-1.43	-11.48	4.27	4.81	2.21	5.37	7.00	6.33
10.60	12.87	11.15	6.93	6.54	7.25	10.96	9.23	14.59	13.02	1.77	1.95	2.00	1.76	1.31	1.23
1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
78.84	76.57	79.14	81.47	86.59	89.47	100.00	109.69	123.43	139.33	156.76	156.78	152.20	146.16	166.29	181.63
57.71	60.92	69.48	76.46	80.60	84.06	100.00	123.48	159.31	198.70	251.28	272.77	215.20	178.12	171.59	200.96
0.35	-0.41	-1.22	0.40	0.89	1.21	0.95	1.15	1.19	1.40	1.41	1.07	-0.60	-0.81	0.72	1.86
2.31	1.89	0.20	2.64	2.30	2.55	1.92	2.52	2.58	3.28	3.66	3.50	1.59	2.04	2.39	2.76
3.67	1.95	-0.17	3.40	2.73	4.11	2.56	3.77	4.57	4.22	4.51	3.74	0.77	1.89	3.10	4.53
9.22	8.10	5.69	3.52	3.02	4.20	5.84	5.30	5.46	5.35	4.97	6.24	3.89	1.67	1.13	1.35
0.22	0.10	0.00	0.02	0.02	7.20	0.04	0.00	0.70	0.00	7.01	0.27	0.00	1.07	1.10	1.00

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PECC is a unique tripartite partnership of senior individuals from business and industry, government, academic and other intellectual circles in 25 Asia-Pacific Economies¹. All participate in their private capacity and discuss freely on current, practical policy issues in search of broad-based answers to regional economic problems.

PECC advocated the need for a formal, intergovernmental organization in the Pacific from the time of its creation. The regional ministerial process of the Asia Pacific Economic Cooperation (APEC) has realized that goal and now provides PECC with a formal channel by which its practical recommendations can be implemented. PECC is the only non-governmental official observer of APEC since the formation of APEC. PECC has provided information and analytical support to APEC ministerial meetings and working groups.

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For more information on PECC, please contact the PECC International Secretariat.

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¹ The PECC Economies include Australia, Brunei Darussalam, Canada, Chile, China, Colombia, Ecuador, Hong Kong China, Indonesia, Japan, Korea, Malaysia, Mexico, New Zealand, Peru, The Philippines, Russia, Singapore, Pacific islands Forum, Chinese Taipei, Thailand, The United States and Viet Nam. France (Pacific Territories) and Mongolia are Associate Members. The Pacific Basin Economic Council (PBEC) is the regional business organization, and the Pacific Trade and Development Conference (PAFTAD) is the region-wide organization of academic economists, both of which are Institutional Members.

² The Standing Committee is PECC's governing body. It includes the Chairs of PECC Committees in each of the 25 full member economies. PBEC and PAFTAD also have seats on Standing Committee.

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KANSAI INSTITUTE FOR SOCIAL AND ECONOMIC RESEARCH (KISER)

Background

The Kansai Institute for Social and Economic Research (KISER) is a nonprofit organization in Kansai (the region centered in Osaka, Kobe and Kyoto) that has its objectives in contributing to the development of the national and regional economies through academic advances.

KISER was established April 2002 as a result of the consolidation of the three research institutions in the region: the Kansai Economic Research Center (KERC), the Center for Industrial Renovation of Kansai (CIRK) and the Socio-Economic Research Institute in Kansai.

KISER promotes research projects under the cooperation of academia and local business community, with the aid of governmental support. The necessary funds for KISER are raised through membership fees from 175 leading firms in various industries from all over Japan.

Purpose and Activities

KISER is currently engaged in the following projects:

- Conducting theoretical and empirical research on social and economic issues in Japan and overseas, including economic policies and regional development.
- Making proposals on both national and regional policies formulated through its flexible research capabilities that take advantage of its academic, industrial and governmental networks.
- Supporting and fostering researchers at universities, research institutions and private companies by inviting their participation in KISER research programs.
- Providing administrative and financial support

for academic research.

- Encouraging research exchange among Japanese and overseas economists, as well as among foreign residents in Kansai.
- Carrying out research commissioned by government agencies, regional public institutions, and private enterprises.
- Hosting seminars and symposiums by inviting specialists from all over the world.

KISER Highlights

<Research for Policy Proposal>

- * Policy agenda for the national and local governments (Discussion on policy agendas regarding the most pressing and challenging contemporary themes. Topics include structural reform, macroeconomic policy, international trade, and aging and fewer children problem among others. Some of the findings of these discussions are also published in the opinion paper "Nouvelle Epoque").
- * Issues for public administrative and fiscal reforms and for local government's initiatives.
- * Proposals for revitalization of industrial competitiveness and for regional development strategies.
- <Economic Analysis>
- * Macroeconomic analysis of the Japanese economy.
- * Quantitative analysis of the regional economy.
- * Compilation and publishing of a variety of data on regional economy "White Paper on Industrial Revitalization of Kansai"

- <Member Service and Public Interest >
- * Research entrusted by public entities
- * Sponsoring symposiums, seminars and lecture meetings.
- * Sponsoring professional conferences and academic meetings (Modern Economic Policy Conference).
- * Promoting International Academic Exchange PECC-PEO(Pacific Economic Cooperation Council Pacific Economic Outlook).
- * Encouraging interactions among academia, business communities, and governmental bodies.
- * **Public affairs** (publishing the newsletter "KISER", maintaining our website).

Senior Officers

KISER is administered by a board of directors, which consists of representatives from major corporations and universities in the Kansai region.

Chairman

AKIYAMA, Yoshihisa Chairman, Kansai Economic Federation

Vice Chairman

NOMURA, Akio Chairman, Osaka Chamber of Commerce and Industry

MURATA, Jun'ich

Chairman, Kyoto Chamber of Commerce and Industry

MIZUKOSHI. Koshi

Chairman, Kobe Chamber of Commerce and Industry

MATSUSHITA, Masayuki

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