

Disclaimer: *The views expressed in this paper are the views of the authors and do not necessarily reflect the views or policies of the ADB, or its Board of Governors, or the governments they represent. ADB does not guarantee the accuracy of the data included in this paper and accepts no responsibility for any consequence of their use. Terminology used may not necessarily be consistent with ADB official terms*

**Financial Sector: Abridged Version
by: Joseph Lim and Clarence Pascual**

1. Introduction

The financial system plays a key role in a market economy because of its importance in mobilizing and allocating resources to finance investment projects that are necessary for economic development. A poorly functioning financial system can be a major constraint to private investment and entrepreneurship without which growth would be difficult to sustain over the long run. In the framework proposed by Hausmann, Rodrik, and Velasco (2003), investment can be constrained by low returns on investment or high cost of finance. In turn, high cost of finance can be traced to bad external finance or bad local finance, while bad local finance can be caused by low savings or poor financial intermediation.

This paper examines whether and how financial constraints may explain low levels of private investment and hinder output growth. Does the financial system pose a binding constraint to investment and economic growth? What factors prevent it from effectively performing its chief function of financing the investment projects that are crucial to dynamic and sustained growth? Within the financial system itself, what are the bottlenecks to sufficient credit growth and effective resource allocation? How can policymakers help ease the most important constraints?

2. Why finance is important to growth

Financial systems ease market frictions and in the process influence the allocation of resources across space and time. The costs of acquiring information, enforcing contract, and making transactions create incentives for the emergence of particular types of financial contracts, markets and intermediaries. Levine (2004) identifies five key functions of financial systems that are essential to growth:

- Produce information about possible investments and allocate capital
- Monitor investments and exert corporate governance
- Facilitate the trading, diversification, and management of risk
- Mobilize and pool savings
- Ease the exchange of goods and services

Financial intermediaries reduce the cost of acquiring and processing information about firms, managers, market conditions that are essential to making investment decisions. Besides identifying the best investment opportunities, they also boost the rate of technological innovation by identifying those entrepreneurs with the best chances of successfully initiating new goods and production processes.

Another function of the financial system is to monitor and influence how firms use capital lent to them by investors and creditors. To the extent that shareholders and creditors effectively monitor firms and induce managers to maximize firm value, this will improve the efficiency with which firms allocate resources and make savers more willing to finance production and innovation. In turn, the absence of financial arrangements that enhance corporate governance may impede the mobilization of savings from disparate agents and also keep capital from flowing to profitable investments (Stiglitz and Weiss, 1983). Thus, the effectiveness of corporate governance mechanisms directly impacts firm performance which in turn impacts on aggregate growth rates.

A third function of financial systems is to facilitate the trading, diversification, and management of risk. By allowing people to diversify risk, the financial system can alter resource allocation and savings rates, and raise long-run economic growth. Because savers are risk averse but high-return projects tend to be riskier than low-return projects, risk diversification services provided by the financial system can induce a portfolio shift toward projects with higher expected returns.

A fourth function of the financial system is the savings mobilization or pooling, which involves the costly process of agglomerating capital from disparate savers for investment. Financial systems that are more effective at pooling the savings of individuals can affect economic development by increasing savings, exploiting economies of scale, and overcoming investment indivisibilities. Pooling the savings of multiple investors permits the pursuit of projects that is beyond the ability of any single investor to finance. This calls for the creation of small denomination instruments, which provide opportunities for households to diversify their portfolio and improve the return on their savings.

Finally, financial services that lower transaction costs can promote specialization, technological innovation and growth. As Adam Smith (1776) argued, a principal factor underlying productivity improvements is specialization or the division of labor. Greater specialization spurs the invention of better machines and production process. But this assumes ease of transactions, which is facilitated by money and other financial instruments.

Reviewing the growing body of empirical analyses, Levin (2004) finds a strong positive link between the functioning of the financial system and long-run economic growth. While subject to qualifications and countervailing views, the preponderance of evidence suggests that financial development matter for growth even when controlling for potential simultaneity bias. Theory and evidence shows that the financial system does not merely respond to economic activity and that financial development is not merely the consequence of economic growth.

Furthermore, microeconomic-based evidence is consistent with the view that better developed financial systems ease external financing constraints facing firms, which illuminates one mechanism through which financial development influences economic growth. A recent study by Ayyagar, Demirguc-Kunt and Maksimovic (2005) demonstrates the centrality of financial constraints to firm growth. Among the litany of woes of listed by businessmen that purported constrain investment, they find that only finance has a significant impact on firm growth, thus is a bindings constraint to growth.

An important qualification of the importance of finance to growth is the role of institutional structure, in particular whether bank-based or market-based system is optimal for growth. The evidence shows that there is not one optimal institutional structure. While financial development

may be crucial for accelerating economic growth, the actual financial structure that emerges may depend on legal, regulatory, political, and other factors.

The issue gains salience in the Asian context where growth has been very impressive in countries with financial systems in opposite ends of the spectrum. (ADB 1995) South Korea, India and Taiwan show that it is possible to achieve high growth with highly interventionist and relatively underdeveloped financial systems. At the same time, countries with deeper financial systems such as Hong Kong, Singapore, and Malaysia also achieved rapid growth. Financial liberalization did not result in economic development in the Philippines, but it did in Thailand. Recent financial sector reforms have also placed inordinate emphasis on the development of market-based systems as well as market competition in the banking sector.

2.1 From financial liberalization...

A key issue of practical importance to developing countries is the impact of financial liberalization on growth. Since the seventies, developing countries have been encouraged to liberalize their financial systems and integrate these into world markets. It was argued that financial markets allow the proper allocation of savings and productive investment. By contrast, financial repression discourages savings or encourages capital flight. Borrowing on non-market terms results in investment spending of poor quality, since borrowers are not selected on the merit of their projects. Insulated financial markets prevent access to cheaper resources and are often characterized by poor competence due to lack of competition and supervision.

An IMF study evaluates the empirical evidence on the effects of financial globalization on growth. (Prasad, et.al 2003) It finds that financial globalization could, in principle, help to raise the growth rate in developing countries through a number of channels. Some of these directly affect the determinants of economic growth (augmentation of domestic savings, reduction in the cost of capital, transfer of technology from advanced to developing countries, and development of domestic financial sectors). Indirect channels, which in some cases could be even more important than the direct ones, include increased production specialization due to better risk management, and improvements in both macroeconomic policies and institutions induced by the competitive pressures or the “discipline effect” of globalization.

The IMF study does not find “clear and robust empirical proof that the effect [of financial globalization on economic growth] is quantitatively significant.” As to the advertised reduction in macroeconomic volatility, it finds that “the process of capital account liberalization appears to have been accompanied in some cases by increased vulnerability to crises.” Globalization has been mostly pain and little gain for many developing countries.

2.2 ...to financial supervision

The assumptions underlying the push for financial liberalization have not gone unchallenged. Diaz-Alejandro (1985) argued that the presumed efficiency of financial markets is predicated on the existence of many intermediaries with the ability to collect and process all relevant, a condition that is rarely met in the real world, let alone in many developing countries. Greenwald et al. (1984) have shown that owing to a serious problem of asymmetric information, financial markets tend to behave erratically, which points to the critical importance of regulation and supervision.

Stiglitz (2004) has highlighted the problem of information asymmetry in financial markets especially in developing countries. This has several implications for financial development.

Banks are the most important financial institutions in most countries because of their ability to determine the creditworthiness of potential borrowers: they are in the best position to overcome the problem of information asymmetry. The view that securities are better than banks because they allow better diversification of risk ignores the importance of information.

The existence of information asymmetry also points to the need for regulation and supervision. In this view, government regulation of the banking sector has four objectives of: 1) ensuring the safety, soundness, and stability of the financial system; 2) protecting consumers (borrowers, investors) against abusive practices; 3) ensuring competition in specific markets (e.g. credit to SMEs), and 4) ensuring access to credit, especially of underserved sectors or groups.

Absent ideal financial regulation and supervision, it has been suggested that countries follow a gradual process of liberalization, starting with domestic financial market and moving to external integration. The other approach is rapid, wholesale liberalization, the idea being to outflank power private and political groups whose interests are best served by financial repression. In both cases, financial liberalization produced unforeseen adverse effects, deep currency crises undermining macroeconomic stability.

3. Finance and growth: historical trends

3.1 Slow growth and recurring crises

After the establishment of the Central Bank in 1949 up to the 1970s, the financial system enjoyed moderate growth buoyed by decades of sustained if decelerating output growth. Banking problems were frequent among small banks but did not translate into system-wide banking crisis. The first serious banking problem broke in 1975 with the failure of a large bank that precipitated a run on some medium-sized and small banks. Intervention by the Central Bank prevented a systemic bank run and confidence was restored on the same year.

Still the decade of the 70s saw strong investment and credit growth owing to a favorable financial environment as foreign commercial banks awash in 'petro' dollars dramatically increased their lending to emerging economies like the Philippines. Constrained by low savings rate, the availability of external financing allowed the economy to significantly boost investment spending.

At the same time, the central bank started to relax foreign capital controls by giving residents access to dollar loans from the foreign currency deposit units (FCDUs) of banks. The move fueled massive short-term borrowings in the face of negative real interest rates. By the end of the decade foreign borrowings have reached unsustainable levels without significant improvement in the economy's capacity to earn foreign exchange. As real interest rates in the international markets rose in the wake of the 1979 oil shock, the country's creditworthiness deteriorated.

In 1983, the country declared a moratorium on foreign debt payments ushering a full-blown banking and balance of payment crisis. The peso was devalued by almost 50% in less than a year; inflation shot up to 50% the following year; the economy contracted by about 11% in two years' time; and political turmoil ended in regime change in 1986. The impact on the banking sector was deep: between 1981 and 1987, the central bank closed 173 banks. The

surviving banks tightened their lending policies as shown by low loan-to-deposit ratios, which fell way below 80% for most banks.

The central bank responded with tight monetary policy, resulting in a severe lack of credit. Reserve requirements were raised and rediscount accommodations drastically reduced. High-yielding, short-term debt instruments were introduced to strengthen open market operations of the central bank. In the end, these proved too costly for the central bank and the ailing banks, but were attractive investment opportunities for stronger banks at a time when their loan portfolio had substantially contracted. The resulting credit collapse lasted up to the early 1990s.

Following the 1997 Asian financial crisis, massive capital outflows, drastic currency depreciation, and asset price declines resulted in a mild recession in 1998. While Philippine banks were not as badly hit as their Asian counterparts, the post Asian crisis period has been marked by persistent weakness in the banking sector. The asset quality of the banking system deteriorated. Non-performing loans as a proportion of bank loan portfolio rising from 3% in 1996 to a high of 17% in 2001. Bank closures were less frequent: only two commercial banks were closed between 1998 and 2005, although there was a surge in closures among small thrift and rural banks, number 18 and 131, respectively, in the same period.

Unlike in the 1983-85 crisis, the central bank this time avoided the extended use of high interest rates to deal with the situation. Interest rates were raised at the height of the regional financial turmoil but were quickly brought down. Nonetheless, it has been slow to reduce its overnight borrowing rate resulting in a growing spread relative to falling T-bill rates. Notwithstanding some fine tuning, reserve requirements on banks have been kept at their crisis levels. Prudential measures imposed in the wake of the 1997 crisis—stricter definition of NPLs, higher loan loss provisioning, higher minimum capital requirements—all of which tend to discourage lending, have become permanent features of banking regulations. The post Asian crisis period has seen a sustained decline in bank credit as proportion of GDP, a trend the Philippines shares with Asian neighbor economies.

3.2 Stabilization and market reforms

Policy makers have responded to these difficulties with a combination of market-oriented policy reforms and stabilization measures. The declaration of Martial Law in 1972 paved the way for implementation of a reform package put together by the joint IMF-CB Survey Commission which had conducted an evaluation of the Philippine financial system. All financial institutions, except insurance companies, were placed under the regulation of the Monetary Board. Specialization of functions across various types of financial entities was enforced. The minimum paid-in capital of commercial banks was raised from P20 million to P100 million to rationalize the sector and encourage long-term lending, resulting in mergers of and foreign capital infusion into private domestic commercial banks. Maximum ownership share by an individual and a corporation was capped at 20% and 30%, respectively.

The Central Bank Act in 1973 removed the pursuit of economic growth as part of the central banks responsibilities. Nonetheless, the central bank continued to perform developmental functions, including overseeing selective credit programs that targeted favored industries using the rediscount window. Moreover, rural banks were given liberal access to the rediscount window, thus serving as conduits of cheap government funds. This resulted in rural banks neglecting mobilization of deposits and judicious build up of their loan portfolio. In the late 1970s, many rural banks became insolvent.

The late 1970s and early 1980s saw greater efforts towards financial liberalization and deregulation. Universal banking was introduced, encouraging bigness and diversification in bank activities, which reversed the emphasis on specialization in the previous decade. Bigness came to be equated with stability: minimum capital requirements of universal banks were raised fivefold to P500 million. With bigness came competition: banks were allowed to offer financial services previously reserved for investment houses, and allowed to go into equity investments with some restrictions.

A key aspect of the reforms was the lifting of interest rate ceilings, initially, for long-term loans (maturities of more than four years) and, later, on short-term loans. The interest rate policy regime was for a long time shaped by the Usury Act of 1916 which set ceilings on secured and unsecured loans. In 1956, the central also set ceilings on deposit interest rates. The Usury Act was abolished in 1976 and lending and deposit rates were administratively set by the central bank. Interest rates were deregulated in 1981 (short-term instruments) and in 1983 (long-term instruments).

Related to interest rate deregulation was the reform of the central bank rediscount policy. Rediscount rates were made uniform and aligned with the market rate based on the Manila Reference Rate 90, which is a weighted average of interest rates on promissory notes and time deposits with 90-day maturity. Directed credit and guarantee schemes under the central bank were transferred to other institutions, the DBP and the Land Bank. Banks were encouraged to establish branches in areas inadequately served or unoccupied, but were banned from setting up branches in areas classified as heavily served.

Another wave of reforms came in the late 1980s up to the early 1990s: the moratorium on the entry of new domestic banks was lifted, bank branching was liberalized, and more foreign banks were allowed to enter. The build up of bank capital base continued with the BSP raising the minimum capital requirement of banks. Several important banking laws were enacted during this period: the Magna Carta for Small Enterprises, the Rural Bank Act of 1992, the New Central Bank Act of 1993, and the Thrift Bank Act of 1995.

During this decade, the Philippines overcame the debt crisis as the country availed itself of debt relief under the Brady Plan. A key reform measure in this period was the liberalization of foreign exchange transactions which allowed the Philippines to attract international private capital that for some time then had been flowing into so-called emerging markets. The BSP further relaxed access FCDUs of banks contributing to the massive build up of short-term foreign currency borrowings of the private sector.

In the aftermath of the Asian crisis, the central bank launched a comprehensive reform program aimed at reducing system risk. The reform program included strengthening the prudential and supervisory systems, adopting an early intervention system and a bank resolution strategy to deal more effectively with problem banks, privatization of government banks, adopting measures to reduce intermediation costs, and improving the legal and regulatory framework. Bank capital requirements were raised, provisioning requirements were tightened, and loan classification subject to loan-loss provisioning made stricter.

Specific measures included capping loan exposure to real estate at 25%, reducing the loanable value of real estate used as collateral to 60% of appraised value, increasing the required liquidity cover for foreign exchange liabilities of FCDUs, among others. Regulations on foreign exchange trading were tightened. For example, the overbought foreign exchange position of banks was brought down to 5% from 25% of unimpaired capital or USD10 M

whichever is lower. The BSP adopted tighter definition of loans in arrears, which partly explained the rise in non-performing loans. Banks were required to set aside loan-loss provision of 2% of gross loan portfolio and 25% reserves of the secured portion of substandard loans. Huge increases in minimum capital requirements were implemented even as mergers and acquisitions were encouraged. Along with a policy of encouraging bigness, the BSP adopted risk-based capital requirements.

4. Domestic Finance as potential constraint to growth

4.1 Low savings rate

Fig. 1a and Fig. 1b show that the Philippines gross national savings rate fell drastically in the 1983-85 economic collapse and made it a laggard in the savings rate compared to the Asian countries. Fig. 1c shows that its savings rate is more similar to the Latin American countries that faced periodic recessions and crises, which brought down the savings rate. By 2006, the Philippines' savings rate had been overtaken by Chile and Argentina, and is only slightly better than Mexico's and Brazil's.

Figures 1a to 1c also show that the country's savings rate had been low because output growth has been slow and erratic. Appendix A shows clearly that the gross national savings rate is largely a function of GNP per capita. It is not significantly related to financial variables such as the deposit rate of banks or the financial deepening variable of M2 ratio to GDP. Thus it is important that the periodic recessions and low growth scenarios be minimized.

There is little doubt that the country's low savings rate is one reason that prevents it from attaining the high and sustained growth rates achieved by other Asian economies. The situation deteriorated in the eighties and nineties as already low savings rate went into a long term decline. The savings rate improved at the start of the 2000s on account of massive inflows of overseas workers' remittances, but remains low by Asian standards.

That low savings is a constraint to growth if one takes a long view of Philippine economic development is indicated by high lending rates and the importance of foreign borrowings to spur investment and growth as discussed above. But the story of low savings rate cannot entirely account for the poor credit and investment growth in the last two decades or so. Poor intermediation also played an important role as evidenced by the lack of financial depth, high lending rates, excess liquidity in the banking sector, the lack of access to credit among small borrowers, and the underdevelopment of the capital markets.

Figure 1a

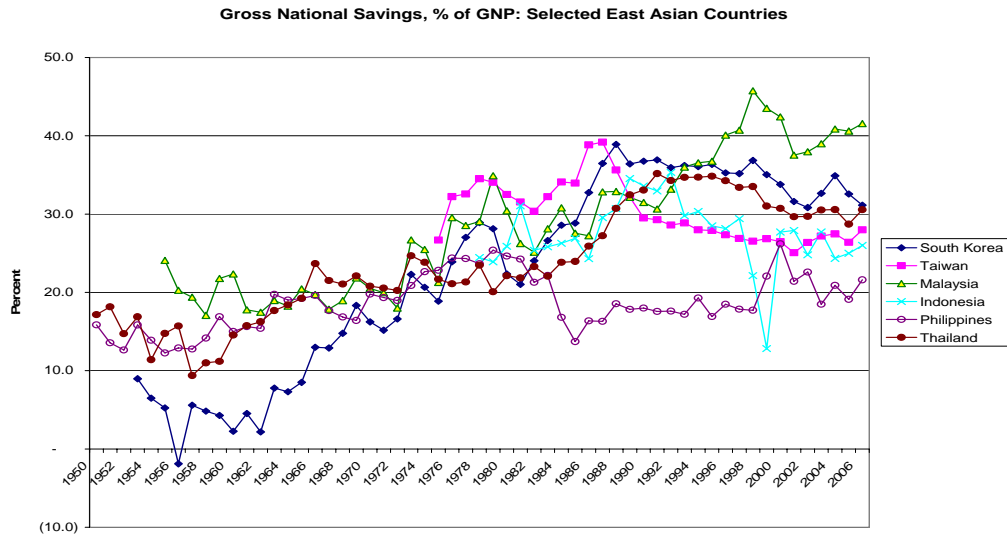


Figure 1b

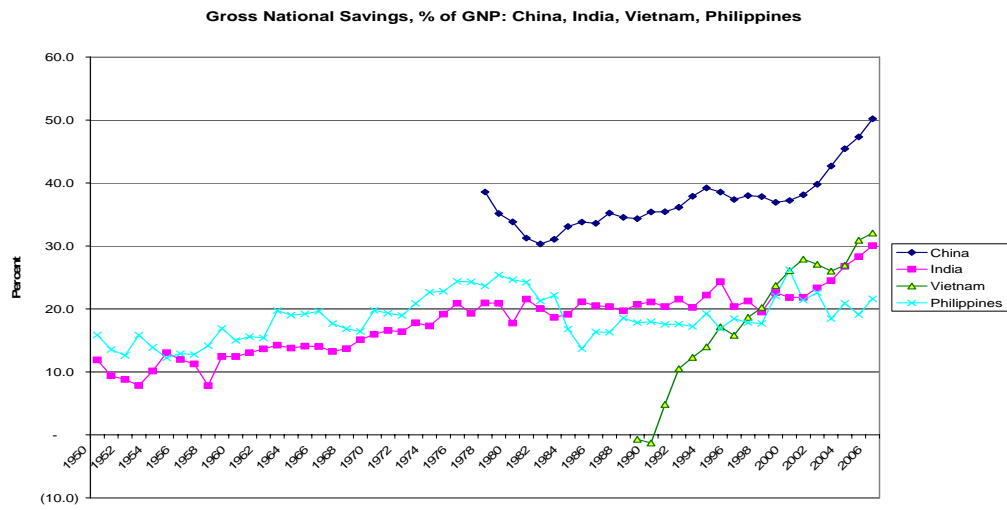
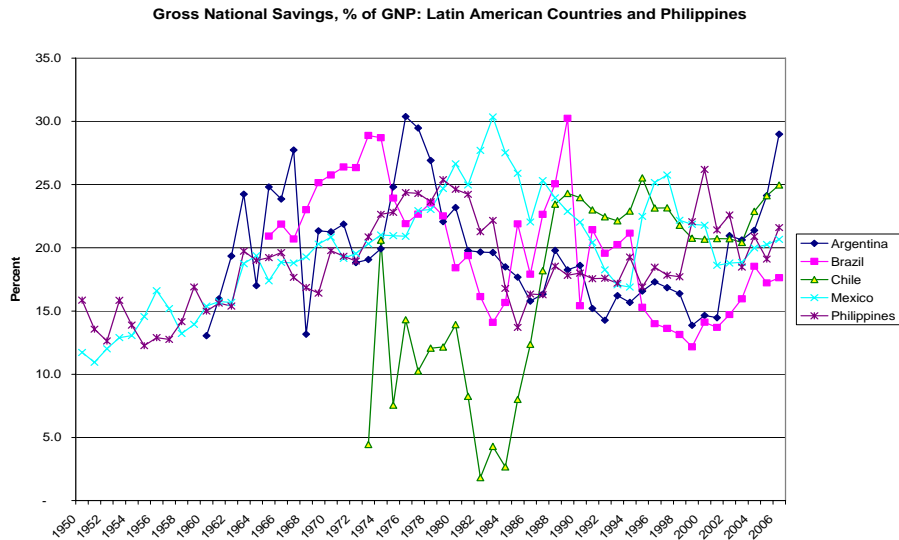


Figure 1c



Source: International Financial Statistics

4.2 Size: Low Financial Deepening

A potential constraint to long-run growth is the underdeveloped state of the Philippine financial system. Empirical studies show a strong positive relationship between various measures of financial development and economic growth and its attributes. King and Levine (1993), for example, find a strong positive relationship between measures of financial development indicators—liquid liabilities of the financial system to GDP, the ratio of bank credit to bank credit plus central bank domestic assets, and private sector credit to GDP—and growth indicators—long-run real per capita growth rates, capital accumulation and productivity growth. The coefficients are economically large even after controlling for income, education, and measures of monetary, trade, and fiscal policy. Furthermore, they show that finance does not simply follow growth, but that it is a good predictor of subsequent growth rates.

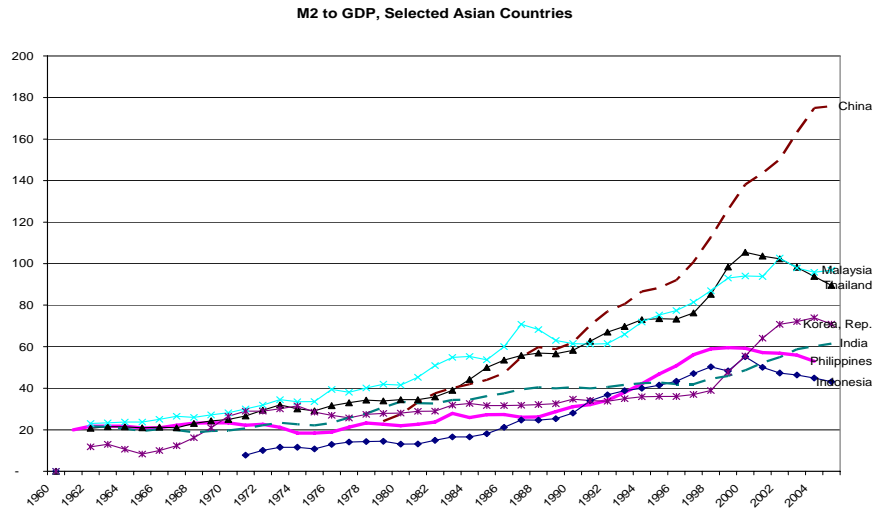
Compared with developing economies in Asia and Latin America, the Philippines, in the first decade of the 21st century, lags behind in terms of standard measures of financial deepening. It has the lowest money (M2) to GDP and credit to GDP ratios among the ASEAN-4 countries, second only to Indonesia. It has lower ratio than South Korea and India whose financial systems have been deliberately reined in by policymakers until the reforms in the nineties. The Philippines' poor ranking does not improve when compared with the major economies of Latin America, with whom the country shares a troubled economic history. By the turn of the century, it had a lower ratio of money (M3) to GDP than Brazil, Mexico and Chile, but has fared better than Argentina. (Figs 2 to 3)

Until the seventies, the Philippines had money (M2) to GDP ratio within the range of economies in her part of the world. Indeed, it had one of the highest, if not the highest, credit to GDP ratio among Asian countries. (Fig 4) In the mid-seventies, the process of financial deepening slowed followed by some recovery up to the early years of the eighties, while the rest of the Asian countries maintained their growth momentum. But it was the sharp recession in 1983-1985, accompanied by deep and protracted credit contraction lasting up to the early nineties that stalled progress in this area.

The mid-nineties saw a sharp but short-lived recovery in credit growth, fuelled by strong international private capital flows to emerging markets. Financial deregulation and technological developments resulted in remarkable financial deepening as evidenced by the strong rise in money (M2) to GDP ratio during the decade. The good times were cut short by the Asian financial crisis in 1997 as massive capital outflows, currency depreciation, and asset price declines resulted in a mild recession in 1998.

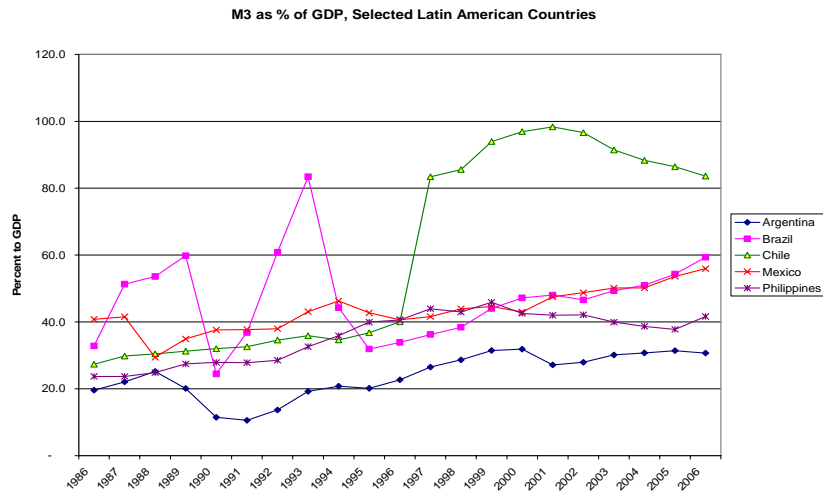
For the Philippine financial system, especially for the dominant banking sector, the Asian crisis was significant less for its direct and immediate impact than the legacy of sustained credit decline and banking disintermediation it left behind. While this is something it shares with other Asian economies, the credit contraction has been particularly deep in the case of the Philippines. From a peak of close to 80% in 1998, credit to GDP has dropped to above 40% in 2006. Money (M2) to GDP fell from over 60% to 50% over the same period, with a slight recovery in 2006.

Figure 2



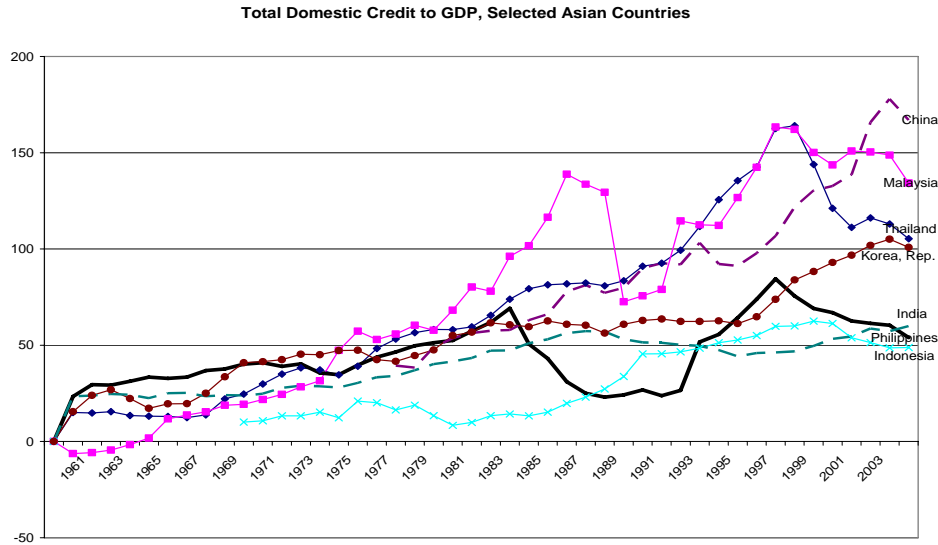
Source: International Financial Statistics

Figure 3



Source: International Financial Statistics

Figure 4



Source: International Financial Statistics

4.2 Efficiency: High Lending Rates and High Intermediation Costs

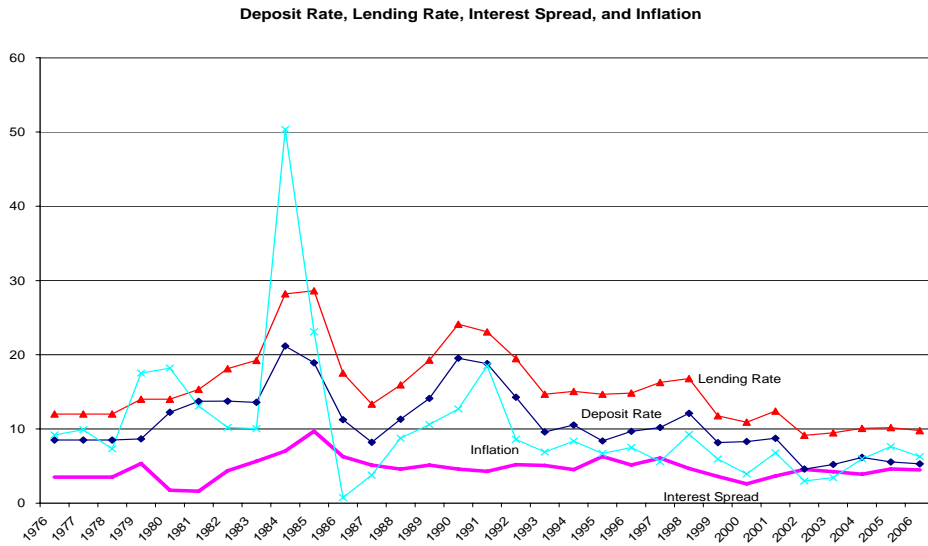
Lending rates have been high for decades constraining investment and credit growth. Historically high lending rates can be traced to four factors: low savings rate, inefficiencies in the financial system, macro instabilities that raise overall risk, and tight monetary stance. Lending rates have gone down in recent years but these remain high relative to inflation and the benchmark Treasury bill rate. (Fig 5)

A fundamental reason for high lending rates is the country's low savings rate. The scarcity of savings forces banks to pay high rates to attract deposits, which, in turn, translates to high lending rates. The situation is made worse by high intermediation costs in the financial system, adding to already high lending rates. For example, the Philippines ranks first or second among the selected Asian economies in terms of the interest spread, net interest margin, and operating cost to assets (see longer paper). Latin American banking systems (Brazil, Argentina, and Chile) fare better than the Philippines. Large spreads between deposit and lending rates have been traced to the lack of competition and inefficiencies in the banking sector. The three-bank concentration ratio in terms of bank assets for the period 2001-2005, however, does not seem to be significantly high relative to the selected countries (see longer paper).

Macro instabilities, mainly political uncertainty, large fiscal deficits, and high inflation have played a bigger role in boosting lending rates. The large fiscal gaps have been closed in recent years and inflation has been tamed and, indeed, lending rates have considerably eased in post-1997 period. There is room for lending rates to further decline, considering the significant drops in Treasury bill rates. What had kept lending rates from falling further was the high overnight borrowing rate of the central bank throughout most of 2005 to 2006. But in 2007, the BSP had cut the overnight rate by three times in 2007 amounting to 175 basis points (the latest cut was on Nov. 15, 2007) with the overnight borrowing and lending rates now at 5.5% and 7.5%, respectively.

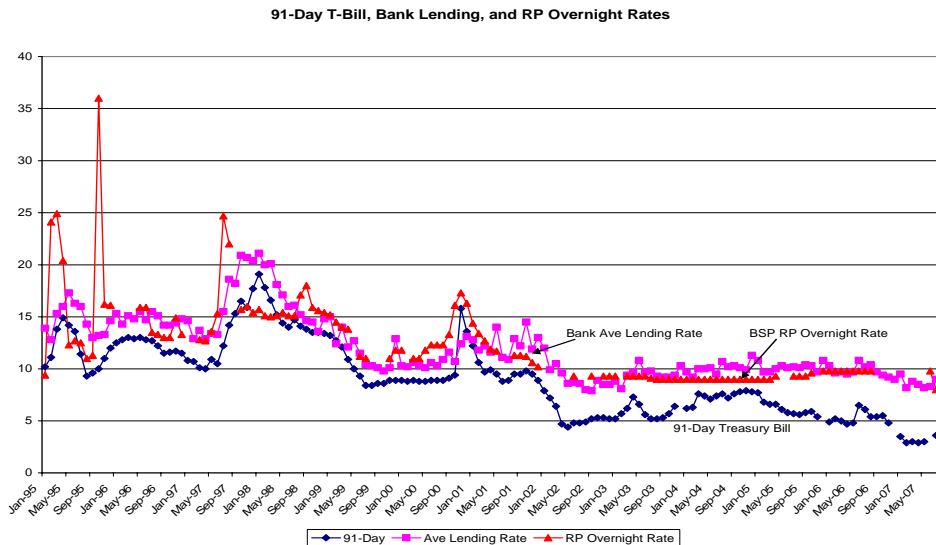
The BSP is on the right track for it sees the need to focus on keeping interest rates (including lending rates) as low as possible. This is truer now that inflation in the first nine months of 2007 had been well below the targeted inflation of 4-5% set by the Central Bank. Lower domestic interests would curb the excessive appreciation peso by reducing the demand for the peso. There is still some room for more cuts in the overnight rate given that inflation is still below 3%, the 91 treasury bill rate is below 4% and the peso appreciation has become more severe.

Figure 5



Source: Bangko Sentral ng Pilipinas

Figure 6

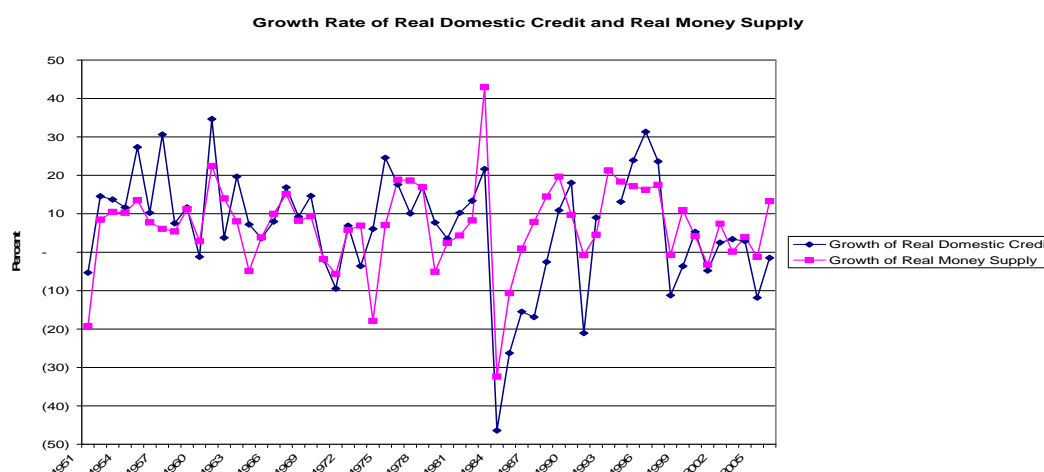


Source: Bangko Sentral ng Pilipinas

4.3 Liquidity: Volatile Movements in the Past and Low Credit in Recent Periods

Fig. 7 shows the movements in the liquidity of the system through the growth rate of real money supply (money plus quasi-money) and real domestic credit (both adjusted for CPI inflation). It can be seen that the high economic growth periods of the second half of the 1970s and early 1980s, the late 1980s and the mid-1990s had been periods of high liquidity and credit growth (especially in 1983). They were followed, however, by external crises in 1984-85, 1991 and 1998 respectively, which led to liquidity contraction, especially severe in 1984-85. Thus in the 1970s to 1990s, we see an alternate increase and then decrease in liquidity in a crisis-prone system. The macro management paper explains this clearly. High credit growth in periods with high current account deficits and high external debt service exposes the economy to high risks of an external and financial crisis as many firms become vulnerable to default when a negative shock such as sudden currency depreciation and speculative attacks happen. This is aggravated as the monetary authorities respond with high interest rate and liquidity contraction to stem the currency depreciation and resulting high inflation. The latest period (2001 onwards) exhibited slow or negative (in 2001 and 2005) growth in liquidity and credit, with a slight recovery in liquidity in 2006, but real domestic credit growth was still negative.

Figure 7



A possible reason for slow credit expansion in recent periods is that banks lack money to lend. At the macro level, this is unlikely given the rise in gross national savings at the start of this decade. Moreover, falling lending rates in the last decade likely rules out lack of money as a major constraint. Indeed, banking indicators suggest that lack of funds is the least problem facing banks. The most telling indicator is banks' soaring excess reserves. (Fig. 8) Until 1994 available reserves of the banking system were more or less close to the required level, dipping into negative territory in times of crisis and uncertainty (1983-85; 1990-92). Low excess reserves owing to high reserve requirements explain the credit crunch in 1983-1992.

Excess reserves

By contrast, the current credit slowdown has been accompanied by soaring excess reserves. The banks may be getting a smaller percentage of the total savings but even with that, they are not lending to the private sector but are holding more in the form of government bonds. The bulk of banks' excess reserves is accounted by investments in treasury bills (2% of such

investments qualify as reserves according to central bank rules). The share of loans to bank assets has fallen with the rise in bank holdings of government securities. These raise an important issue for regulators: The function of banks is to lend, not to the government, but to the private sector.

Banks' holding of excess reserves may only be symptomatic of deeper problems. High policy rates of the Central Bank, before 2007, encouraged banks to park their funds with the former rather than lend to the private sector. In fact in the first semester of 2007, the BSP encouraged this even further by creating a special deposit account (SDA) which allows the banks to create special funds for banks' customers to park their funds at the BSP at the overnight deposit rate¹. Too, the high stock of nonperforming loans, which suggest financial distress among lenders and add to lending cost, may have reduced banks' appetite to lend to private investors. NPL ratios have come down to single digit levels in the previous year so there should be some relief in this area. In fact in 2006 and 2007, there had been a slight recovery and money and credit growth.

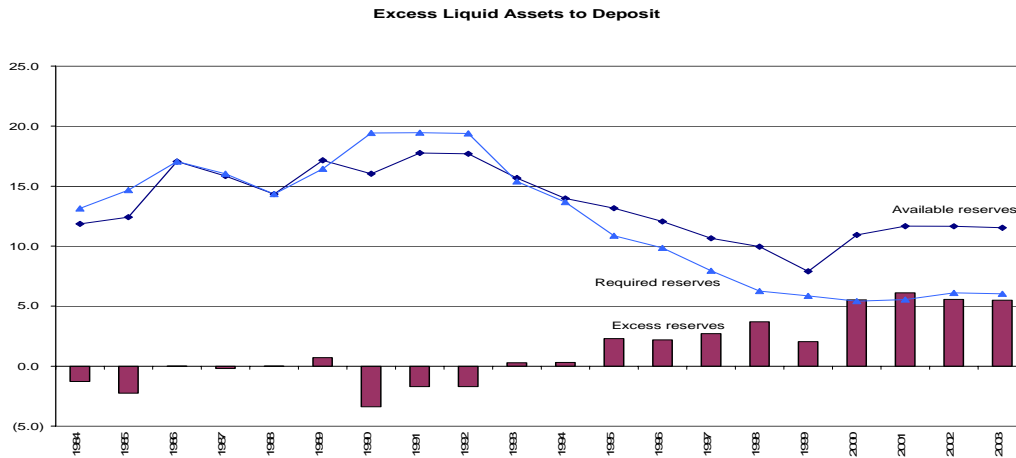
Excess reserves may also be due to lack of demand for credit. The evidence suggests that this indeed is the case. The first evidence relates to the link between domestic credit and gross capital formation. In the upturn, investment leads credit by a few years; in the downturn, credit and investment fall almost simultaneously. Thus there was a surge in investment spending in 1974-1976 before credit picked up in 1976. Likewise, capital formation rose in the 1990-1993 before domestic credit soared in 1994. To date, turnaround in investment spending since the decline in 1997 (despite the lack of tight monetary and credit policies), which explains why credit to GDP has been on a decline as well. If the past is a guide, there is a need to kick-start investment spending before a recovery in credit growth appears on the horizon.

Role of Money and Credit Demand

Survey data also points to the role of demand in constraining credit growth and firm growth. **Fig 9** presents the results of the BSP Expectations Survey covering the period 2001(2Q)-2007 (3Q). It shows business confidence (measured by business expansion plans) moving cyclically, but with a clear upward trend since 2006. Regression analysis shows that lack of insufficient demand and, to a lesser extent, 'other' problems and lack of equipment, are the binding constraints to firms' expansion plans. (**Appendix B**) Moreover, insufficient demand is strongly linked with lack of access to credit. Lack of access to credit depresses aggregate demand, hence dampens business optimism. Financing constraints also make it difficult for the firm to acquire additional equipment it needs to expand operations. In turn, lack of equipment deters business expansion. Expansion plans improved in 2006 and 2007 as the constraints posed by insufficient demand, access to credit, lack of equipment and 'other' problems eased. Thus, the evidence at the micro (survey) level points to weak demand as the binding constraint to firm growth, at least in the current decade.

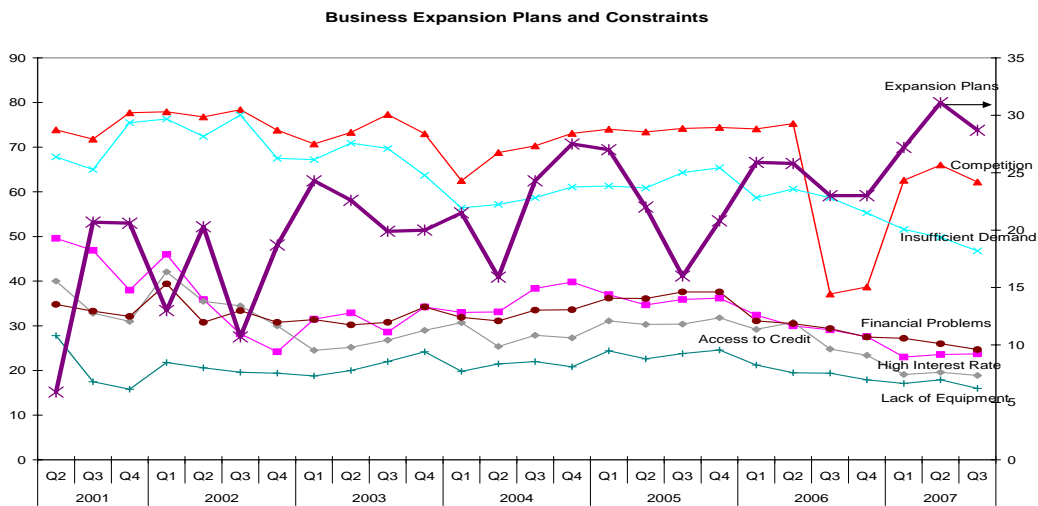
¹ The BSP did this to counter a sudden jump in money and liquidity growth in the first half of 2007 attributed to large remittance inflows of overseas workers.

Figure 8



Source: Bangko Sentral ng Pilipinas

Figure 9



Source: Bangko Sentral ng Pilipinas

4.4 Accessibility

Access to financing does not seem to be a salient concern now at the aggregate level, but small and medium scale enterprises continue to be credit constrained. The BSP Business Expectations Survey cited above reveals that 30% of firms were constrained by lack of access to credit in 2005. This figure has gone down to 20% in the third quarter of this year.

A WB-ADB survey shows that 24% of firms consider the cost of financing as a major or severe obstacle. For all industries, internally generated funds account for 60% of financing for working capital, compared with only 9% of funds being sourced from commercial banks, about half that in Indonesia. Small firms source 12% of their funding for working capital from trade

credit and only 7% of their financing needs from local banks. Small firms rely on family, friends, and informal financing sources.

Few small firms have access to overdraft or credit line. Only 22% of small firms, compared to more than one half of medium-size and 42% of large firms, have such credit facility. Credit access is made more difficult by numerous requirements for loan application, including collateral while average loan rates are significantly higher than for large firms.

Domestic firms face more serious financing constraints than exporters. The average loan rate for domestic firms is twice that for foreign firms, partly because the latter have access to foreign loans or foreign-denominated loans, and are hedged against foreign exchange risk. Domestic firms are also less able to access loans owing to collateral requirements. Overdraft facility or credit line benefits only about 28% of local firms. The limited and costly financing available to domestic-oriented firms indicate that they tend to be considered as high credit risks.

4.5 Limited range of instruments

One of the functions of the financial system is to mobilize or pool savings from many individuals and channel these to the large projects beyond the ability of a single investor to finance. This calls for the creation of small denomination instruments, which provide opportunities for households to diversify their portfolio and improve the return on their savings. It also requires long-term financing instruments to match the long gestation period of large investments. The availability of long-term financing has been crucial in the process of industrialization.

Much attention has been placed on the growth of capital markets as alternative source of financing, especially long-term financing, for development. Despite remarkable activity in recent decades, the Philippine capital market is poorly developed. As with the banking sector, the Philippines lags behind in terms of capital market indicators. (Table 3) It has the lowest insurance penetration, next only to Indonesia. Stock market capitalization is thin (in 2005, stock market capitalization to GDP is 35% only slightly better than Indonesia's 27% and China's 32%).

The private bond market barely registers its existence with capitalization amounting to a mere one-third of one percent of GDP. The Philippines, however, has one of the biggest public bond markets, reflecting the huge borrowing requirements of the public sector over decades. Compared with the Latin American economies (Brazil, Mexico, Argentina, and Chile), the Philippines is not far behind in terms of insurance penetration, stock market capitalization and turnover, and public bond market size. It has a lot of catching up to do in terms of developing the private bond market.

A quick review of the growth over time of the various capital markets shows a mixed picture. (Fig 10) Life insurance premium to GDP peaked in the late 1980s only to drop sharply in 1992. While this ratio has since increased, by 2005, it was still below the levels posted in the late eighties. By contrast, non-life insurance premium to GDP has been dwindling after reaching a peak in 1994-95. The stock market saw vigorous growth in the first half of the 1990s, retreated after the Asian crisis, but recovered lost ground only recently.

Data on the private bond market, while available only starting 2000, shows significant growth relative to the size of the economy. Private bond market capitalization to GDP tripled from one-tenth of one percent in 2003 to one-third of one percent in 2005, but this is still a very low level. Combined with new equity issues in the stock market, which averaged less than one-

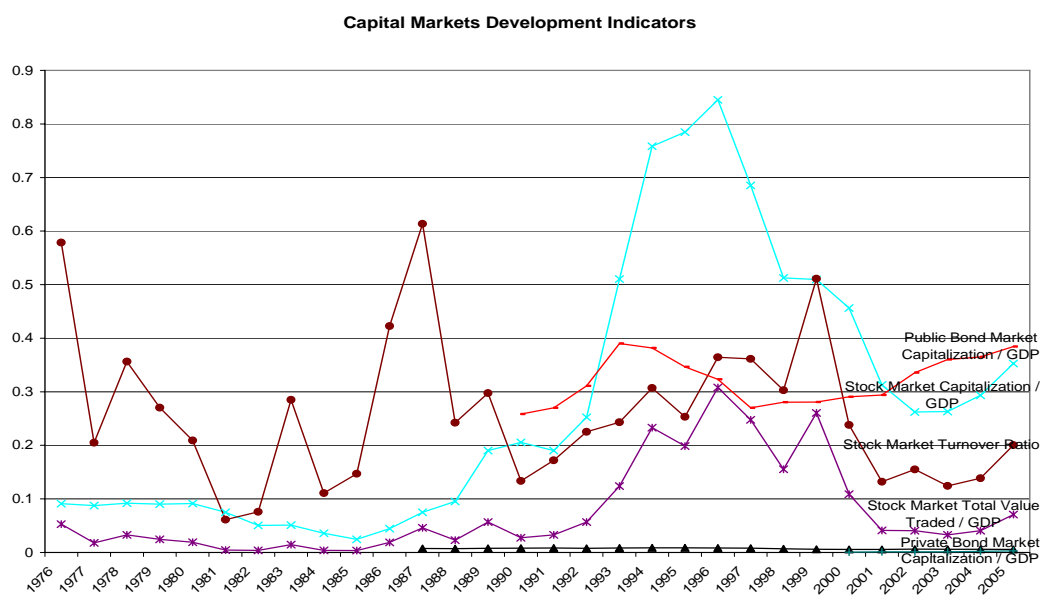
third of one percent of GDP in 2001-2005, the total private bond and new equity capitalization reached close to one percent of GDP in 2005.

Table 3. Comparative Capital Markets Size

	Life Insurance Premium Volume/ GDP	Non-Life Insurance Premium Volume/ GDP	Stock Market Capitalization/ GDP	Stock Market Total Value Traded/ GDP	Stock Market Turnover Ratio	Private Bond Market Capitalization/ GDP	Public Bond Market Capitalization/ GDP
China	1.78%	0.92%	32.01%	26.31%	82.17%	10.38%	15.17%
India	2.57%	0.62%	60.08%	56.42%	93.90%	0.97%	32.86%
Hong Kong	8.63%	1.29%	528.12%	258.9%	49.02%	17.80%	9.09%
Singapore	6.15%	2.62%	163.42%	102.6%	62.79%	18.80%	39.24%
Taiwan	11.22%	2.95%	134.75%	178.7%	132.62%	28.06%	27.81%
Korea, Rep.	7.47%	3.06%	72.92%	152.7%	209.45%	52.78%	25.34%
Malaysia	3.68%	1.87%	143.64%	38.33%	26.68%	52.22%	38.21%
Thailand	1.99%	1.62%	68.05%	50.56%	74.30%	20.23%	21.14%
Indonesia	0.80%	0.69%	27.08%	14.59%	53.88%	2.38%	16.64%
Philippines	0.90%	0.57%	35.27%	7.07%	20.05%	0.31%	38.45%
Brazil	1.33%	1.69%	50.84%	19.42%	38.20%	11.96%	44.57%
Mexico	0.68%	0.98%	26.84%	6.86%	25.57%	4.82%	22.09%
Argentina	0.76%	1.76%	29.55%	8.96%	30.33%	8.40%	21.25%
Chile	2.44%	1.48%	110.54%	16.37%	14.81%	19.90%	17.17%

Source: World Bank

Figure 10



Source: World Bank

5. External finance as potential constraint to growth

Constrained by low domestic savings rate and an underdeveloped financial system, the Philippine economy has had to resort to foreign borrowings to boost investment levels and grow at decent rates, but had to face the risk of a crisis as soon as the external environment turns sour. Once the flow of easy money dries up, interest rates increased, the currency depreciated, and growth declined. In the process, the banking system, which facilitated the flow of foreign capital to the private sector, became distressed. Thus, it is important to look closely at the nature of capital flows that underpinned these destabilizing cycles of investment.

Periods of net capital inflows have been followed by massive outflows during crisis years. There were three episodes of net capital outflows in the last three decades (the BOP curve went below the current account curve in Fig. 11), the beginning of the debt crisis in 1983, after the regional financial crisis in 1998, and politically unstable years 2003-2005. During rest of the period net capital flows were positive.

Reliance on foreign savings to finance investment implies current account deficits, which in turn, raises the issue of financing these gaps. Fig. 12 gives us the different net capital flows from the balance of payments table of the Philippines together with the current account balance. It can be seen that during the high current account deficit in the late seventies till the mid-eighties, financing came largely from other investments, which comprise mainly net external loan flows. In the period 1993 to 1997, the current account deficits continued to be financed by net other investments—external debt flows—some net foreign direct investments and net portfolio investments, which started to increase in 1994 and 1995, and rose sharply in 1996, only to fall fast in 1997, turning into negative in 1998 due to the Asian crisis.

High current account deficits pose major difficulties. *First*, if current account deficits are financed by external debt, one must make sure that short-term debts do not comprise a large portion of the liabilities. The two crises the Philippines entered – the Latin American debt crisis of the 1980s and the Asian crisis – saw some increases in short-term debts, especially in relation to international reserves. *Second*, relying on external debts exposes the economy to volatilities in world financial markets and global interest rates, and may lead to the country's participation in international debt and financial crises, as what happened in 1983-85 and in the Asian crisis of 1997-99. *Third*, external borrowing is subject to currency risks, as what happened in 1983-85 and 1997-98 when the external debt burden ballooned due to currency depreciation. Currency speculative attacks can be more severe in the current period of capital account liberalization. Thus even long term concessional loans from bilateral and multilateral sources bear strong currency risks.

In the current period of capital account liberalization, net portfolio investments are even *less* dependable. The most reliable source of external financing is still foreign direct investments. While it is not immune to the impact of domestic instabilities as in the late 1990s and 2000s, it is always above zero and the investments stay for a longer period in the country simply because of the long-run and bulky nature of investments. It should be pointed out that even with current account surplus achieved in 2003 to 2006, the volatilities in 'hot money' in portfolio investments and the steep negative flows in net other investments is causing volatilities in the balance of payments of the Philippines.

The Philippines has borrowed heavily from abroad as evidenced by high external debt to GDP ratio. Between 1983 and 2005, the ratio stayed above 50%, except in 1996. The nature of external indebtedness has evolved over the decades. The public sector (national government

and Central Bank) has always been a bigger borrower than the private sector. The banking sector (including the Central Bank) and the private non-banking sector were significant debtors in the early 1980s during the debt crisis. Their share declined in the latter half of the 1980s and early 1990s as the national government assumed some of the private and Central Bank debts and as high fiscal deficits increased foreign debt of the public sector (see longer paper).

The share of the banks and the private sector increased again in the first half of the 1990s leading to the Asian crisis, but declined for a few years only to rise in 2003 as the dollar became cheap and the dollar interest rates fell. Between 2003 and 2007, with the national government facing a fiscal crisis, the public non-bank debt increased its share at the expense of the private non-bank share (see longer paper).

In terms of creditors, the foreign banks and financial institutions were the main lenders before and during the Latin American debt crisis and debt overhang. This share (63% in 1983) fell fast during the late 1980s and early 1990s and was significantly reduced in 1992 (14%) because of the Brady Plan. In the meantime multilateral and bilateral became the main source of external debts. This lasted until the period before the crisis (starting 1994) when banks and other financial institutions increased their share of the external debt. This trend more or less continued until 2005 (see longer paper).

All throughout the period – from 1983 to the present – bondholders and noteholders persistently increased their share, so that by early 2007, they comprise almost 36% of total external debt. Based on creditors of country origin, Japan has been the major country of creditor origin since 1987 with more than 20% of external debt. France and Germany are distant second and third, each with less than 6% of the total debt in March 2007, while the US has dropped from being the top country (28.5% of the debt in 1983) to a mere 3.9% of the total in March 2007 (see longer paper).

The country had to pay dearly for its heavy reliance on foreign borrowings: the spread between the coupon rate of Philippine sovereign bonds and the US 10-year Treasury note rose from 232 basis points (bps) in 1996 to a high of 521 bps in 2005. External indebtedness eased in recent years: external debt to GDP has been brought down to below 50% since 2006 as large international reserves on the back of successive current account surpluses in recent years allowed the country to prepay some of its foreign debt. The spread on the country's foreign debt has dropped to 296 bps in 2006 and 162 bps this year owing to the positive external balance and the significant reduction in national government deficits.

The greater price to pay, however, is increased external risks. During periods of current account deficits and foreign exchange constraints, depending on short-term commercial external financing (portfolio investments and short-term debts) is dangerous. This is usually overlooked during times of optimism and high growth. Even so, the conditions for external financing for developing countries are very dependent on the whims of the international financial markets. The Philippines' overdependence on external debt during the 1970s and early 1980s brought it to a deep economic collapse as world financial conditions turned very adverse with double-digit world interest rates and availability of only short-term credit. Again in the mid-1990s, the Philippines' exposure to short-term external debt and portfolio flows made it more vulnerable to the contagion from Thailand.

Figure 11

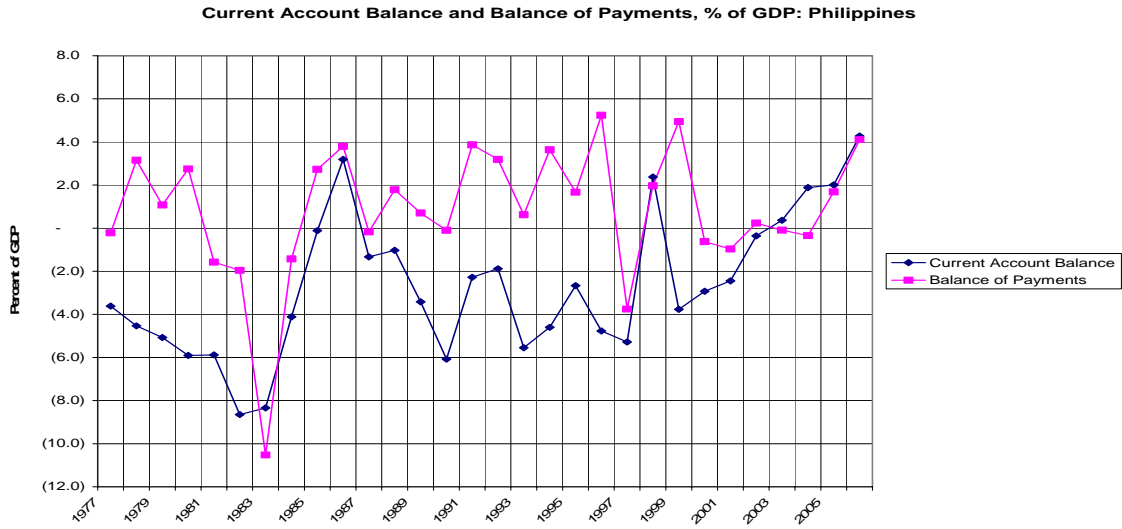


Figure 12

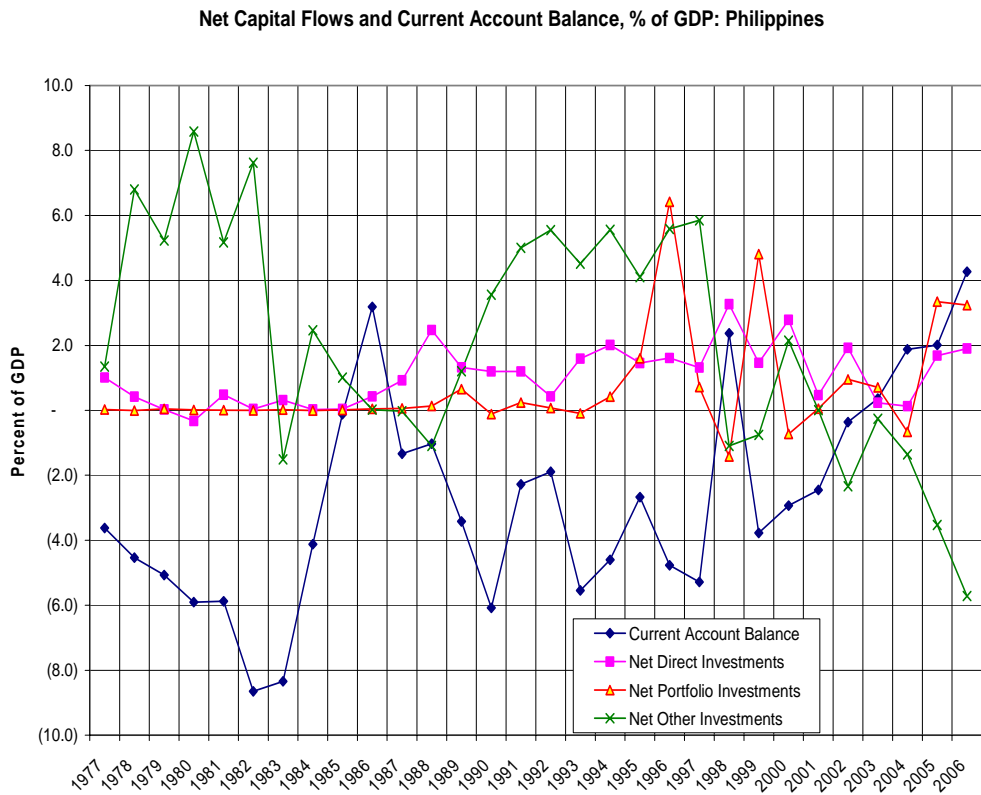


Table 4: Philippine Sovereign Bond: Rates and Spread: 1996-2007

Year of Issue	Bond Name	Term	Coupon Rate	US 10-Year Note	Spread	S&P FCY Rating/Outlook
1996	ROP 2016	20	8.75	6.438	2.32	BB-/Positive
1997	BSP 2027	30	8.6	6.353	2.25	BB+ /Positive
1998	ROP 2008	10	8.875	5.264	3.61	BB+ /Negative
1999	ROP 2019	20	9.875	5.637	4.24	BB+ /Stable
2000	ROP 2025	25	10.625	6.029	4.60	BB+ /Negative
2002	ROP 2017	15	9.375	4.611	4.76	BB+ /Negative
2003	ROP 2014	11	8.25	4.015	4.24	BB/Stable
2004	ROP 2015	11	8.875	4.274	4.60	BB/Stable
2005	ROP 2030	25	9.5	4.290	5.21	BB-/Negative
2006	ROP 2031	25	7.75	4.792	2.96	BB-/Stable
2007	ROP 2032	25	6.375	4.76	1.62	BB-/Stable

6. Policy recommendations

Several policy recommendations follow from this discussion of binding constraints. The immediate need is for policies to raise investment demand. This is also tackled in the macro management paper. But even if there is no major credit constraint in the recent period, financial policies can still contribute to raising investments.

First, there is a need for policies to translate increased savings to investment spending. Much has been said about the need for innovative investment instruments that can be offered overseas workers. But a large chunk of remittances goes into financing household consumption so that a logical approach is to ensure that the increased spending activity stimulates investment in domestic productive capacities. There are two ways to go about this. Outside the financial system, the government can set up technical and management assistance programs to families of overseas workers that are interested in investing in viable business projects. Within the financial system, attractive financial instruments that allow small and medium savers – such as OFW workers and their families -- to invest in lending instruments to a wide array of profitable firms and corporations should also be encouraged and promoted. In October 2007 the BSP proposed to offer \$1 billion retail treasury bonds to overseas Filipino workers to harness the large remittance funds towards productive investments. To encourage the overseas workers to invest in such bonds, the BSP and the Overseas Workers Welfare Administration (OWWA) are planning to hold overseas roadshows on financial literacy particularly in countries with large Filipino communities. The BSP and OWWA is targeting 10% of the overseas workers' earnings, a significant portion of which (as high as 30%) usually are brought in through informal channels. The government is hoping to tap these funds to fund infrastructure development in the country. It is also hoping to boost entrepreneurial endeavors and investment in better health care, education and housing, especially for the families of the overseas workers.

Second, policies to improve financial intermediation must focus on keeping lending rates as low as possible. This is truer now that inflation in the first nine months of 2007 had been well below the targeted inflation of 4-5% set by the Central Bank. Furthermore deterring the peso to appreciate too much – a major challenge identified in the trade and investment component – would be helped tremendously if domestic interest rates are lower, so as to reduce the demand for pesos. The Central Bank can facilitate the lowering of lending rates by further reducing the overnight lending and borrowing rates which still has a wide gap with the Treasury bill rates. The BSP is on the right track by reducing the overnight rates thrice (175 basis points) so far in 2007 with overnight borrowing and lending rates now at 5.5% and 7.5%, respectively. But there is still some room for its decrease given that inflation is still below 3%, the treasury bill rate is less than 4% and the peso appreciation has not been stemmed and in fact has become more severe.

Third, it is important to ensure that credit flows to the most dynamic but often underserved sectors such as small and medium enterprises. The ADB Investment Climate and Productivity Survey in 2003 found that although credit is not a major constraint during the survey, 25% of respondent firms still claim to be credit-rationed and had to rely on their retained earnings. Lower lending rates will help ease this since lower interest rates in the informal sector and use of retained earnings and self-financing would be encouraged by lower interest rates in the banks. But over and beyond this, one can achieve more lending to small and medium enterprises by promoting competition in the provision of loans to underserved sectors, not just to prime corporate borrowers as has been the case with liberalized entry of foreign banks. The emphasis on size of banking institutions must be tempered by the fact that large banks tend to lend to large borrowers. Promotion and support of strong but smaller financial intermediaries – such as rural banks, thrift banks, cooperative banks and cooperatives -- must be encouraged.

Fourth, it might be worthwhile to encourage the local currency bond markets in the country. Local currency bonds have been given strong emphasis in recent periods especially after the string of financial and debt crises that hit developing countries in the 1980s, 1990s and 2000s. Local currency bond markets reduce the currency mismatch problem that contributed to the various international crises. In the Philippines, attempts to stimulate this sector were initiated by ADB in 2003 by providing funds for Balikatan Housing Inc to improve housing in the Philippines. In October 2007, the World Bank announced the establishment of the \$5 billion Global Emerging Markets Local Currency Bond Fund. The Philippines is one of 20 countries allowed to tap this Fund. It would be more beneficial if the local currency bond fund is used to fund important viable projects such as key infrastructure and projects to bring the country up in the technological and scale ladder (see the trade and investment paper) – such as a more integrated electronics sector that is less import-dependent. However, unstable macroeconomic and political environment and slow financial deepening hamper the growth of the capital and bond markets. Burger and Warnock (2006) also found that local currency bond markets will not become strong and vibrant if there are instabilities due to inflation and lack of creditor rights. Thus, the country must avoid any further financial and balance of payment crises and fix its macroeconomic house.

Fifth, there is a need to avoid financial crises. Financial crises occur when large current account deficits are unsustainable and are financed by short-term debts and 'hot money' or portfolio flows. These capital inflows – which increase net foreign assets and international reserves -- usually lead to large increases in money supply (especially if they are not sterilized). Thus the economy experiences high growth in the overoptimistic years and undertake high domestic credit and easy lending due to the sharp rise in money supply. The ingredients of a crisis are created through the double mismatch of borrowing in short-term dollars but investing the money in long-term peso lending (usually in real estate). The crisis can happen either

through an external shock – high world interest rates in 1981-84 – or contagion (rise of bad loans in Thailand), which lead to herd mentality, massive capital outflows, speculative attacks on the currency and sharp currency devaluation. High interest rates contribute to the deterioration of balance sheets and lead to loan defaults and bank collapses – and ultimately a financial and debt crises and recession.

To avoid the above – which the Philippines experienced at least twice in the past two and a half decades – the following should be undertaken:

- Avoid high current account deficits by avoiding overvalued currency and undertaking strong export promotion
- Encourage long-term capital inflows rather than short-term capital inflows (see trade and investment paper for more discussion on this)
- Reduce the country's reliance on short-term debts and portfolio flows by putting reasonable restrictions on portfolio inflows and outflows.

Appendix A. Regression of gross national savings rate to per capita GNP, deposit rate and M2 to GNP

Lnnsavrt	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
lnpcapgnpr	1.360514	.4842427	2.81	0.009	.3651392	2.355889
lndeprt	-.080884	.0754121	-1.07	0.293	-.2358958	.0741279
lnm2_gdp	.1173649	.2320625	0.51	0.617	-.3596464	.5943763
_cons	-10.29313	4.403171	-2.34	0.027	-19.34398	-1.242288

rho | .8817403

Durbin-Watson statistic (original) 0.760325
 Durbin-Watson statistic (transformed) 2.587298

Source	SS	df	MS	Number of obs = 30	
Model	.131295833	3	.043765278	F(3, 26) = 4.50	Prob > F = 0.0113
Residual	.252898691	26	.009726873	R-squared = 0.3417	Adj R-squared = 0.2658
Total	.384194524	29	.013248087	Root MSE = .09862	

where lnnsavrt = log of gross national savings as % of GNP

lndeprt = log of deposit rate

lnm2_gdp = log of M2 / GDP in %

Appendix B: Regression Analyses of Key Variables in BSP Businessmen's Survey

Dependent Variables:	Expansion Plans				Insufficient Demand		Lack of Equipment	
	<i>t Stat</i>		<i>t Stat</i>		<i>T Stat</i>		<i>t Stat</i>	
Intercept	5.04	***	7.54	***	1.65	..	-0.28	
Insufficient Demand	-1.85	*	-2.74	**				
Competition	1.06				1.79			
Lack of Access to Credit	0.10				2.83	**	4.55	**
Financial Problems	-1.32							
High Interest Rate	1.23							
Lack of Equipment	-1.11		-1.67	..				
Lack of Materials Input	1.07						6.84	**
Labor Problems	0.71							
Unclear Economic Laws	0.50							
Others	-1.13		-1.81	*	1.79			
<i>Regression Statistics</i>								
Multiple R	0.8523		0.7631		0.8049		0.8589	
R Square	0.7265		0.5823		0.6479		0.7378	
Adjusted R Square	0.5311		0.5226		0.5976		0.7140	
Standard Error	3.3136		3.3436		5.1066		1.3474	
Observations	25		25		25		25	
F	3.7185		.7568		12.8794		30.9516	
Significance F	0.0128		.0003		0.0001		0.0000	

.. significant at 11%; * significant at 10%; ** at 5%; *** at 1%

Source of basic data: Bangko Sentral ng Pilipinas

References

Agenor, P.R., J. Aizenman, and A. Hoffmaister (2000) "The Credit Crunch in East Asia: What Can Bank Excess Liquid Assets Tell Us?" National Bureau of Economic Research (NBER), Cambridge, MA

Asian Development Bank (1995) *Financial Sector Development in Asia*. Manila.

Ayyagar, Meghana, Asli Demirguc-Kunt and Vojislav Maksimovic (2005) "How Important are Financing Constraints? The Role of Finance in the Business Environment," World Bank

Domac, Ilker, Giovanni Ferri, and Tae Soo Kang (1999) "The Credit Crunch in East Asia: Evidence from Field Findings on Bank Behavior and Policy issues," World Bank

Ghosh, Swati R. and Ghosh, Atish R. (1999) "East Asia in the Aftermath: Was There a Crunch?" International Monetary Fund (IMF), Policy Development and Review Department, WP/99/38

Gochoco-Bautista, Ma Socorro (2000?) "The Past Performance of the Philippine Banking Sector and Challenges in the Postcrisis Period," ADB, Manila

Intal, Ponciano S., and Llanto, Gilberto (1998) "Financial Reform and Development in the Philippines, 1980-1997: Imperatives, Performance and Challenges" Journal of Philippine Development, No. 45, Vol XXV, First Semester 1998)

Lamberte, Mario (1989?) "Assessment of the Problems of the Financial System: The Philippine Case" Philippine Institute for Development Studies (PIDS)

Lamberte, Mario (1993) "Assessment of the Financial Market Reforms in the Philippines, 1980-1992," Journal of Philippine Development No. 37, Vol. XX, Second Semester

Lamberte, Mario and Llanto Gilberto (1995) "A Study of Financial Sector Policies: The Philippine Case" in Asian Development Bank, *Financial Sector Development in Asia*, Manila.

Levine, Ross (2004) "Finance and Growth: Theory and Evidence" in *Handbook of Economic Growth*.

Patrawimolpon, Pichit (2001) "Mobilizing Domestic Finance for Development and Credit Crunches: Some Evidences from Thailand, and other East Asian Countries" paper prepared for the Economic and Social Commission for Asia and the Pacific-Asian Development Bank Joint Workshop on Mobilizing Domestic Finance for Development: Reassessment of Bank Finance and Debt Markets in Asia and the Pacific, 22-23 November 2001, Bangkok.

Prasad, Eswar, Kenneth Rogoff, Shang-Jin Wei, and M. Ayhan Kose (2003) "Effects of Financial Globalization on Developing Countries: Some Empirical Evidence" IMF

Watanabe, Wako (2004) "Prudential Regulation, the 'Credit Crunch' and the Ineffectiveness of Monetary Policy: Evidence from Japan," Institute of Social and Economic Research, Osaka University

World Bank (2006) *Financing Growth*, Financial & Private Sector Development

World Bank (2006) *Financial Structure and Development: A New Database*