CGFS Working Group on
Institutional Investors, Global Savings and Asset Allocation

Background Paper on
How Does Developing Domestic Financial Markets Affect Asset Allocation In Emerging Market Economies?

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I. The Foundations of Financial Market Development

The financial sector of a country often proxies the level of development of the economy as a whole. The idea of the importance of the financial system goes as far back as John Gurley and Edward Shaw (1960), whose main proposition was the importance of financial structure to economic development and growth. Years later, Shaw (1973) stressed that financial repression could restrain economic development, a concept also explored independently by Ronald McKinnon (1973).[2] Therefore, there is now a widespread consensus that authorities need to ensure a sound financial system in order to promote a vibrant economy. Moreover, a healthy financial system would also be fundamental in reducing the vulnerabilities—for instance in terms of currency and maturity mismatches—that have lead to some of the worst financial crises in emerging market economies.[3]

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[1] Of Monetary Authority of Singapore, Bank of Korea and Banco de México, respectively. The views expressed in this paper are those of the authors and do not necessaritly represent the views of the Monetary Authority of Singapore, Bank of Korea and Banco de México. We are thankful to the comments and support from Edward Robinson, Gabriel Lozano and Juan C. Navarro.

[2] The hypothesis that financial development was fundamental for economic growth was supported by others. See for instant the survey by Levine (1997). For recent empiral growth reviews see Levine et al (2000) and the references within. Good examples of theoretical work are Greenwood and Boyanovic (1990), Bencivenga and Smith (1991) and Greenwood and Smith (1997).

[3] Eichengreen and Hausmann (1999) coined the term “original sin” to the “situation in which the domestic currency cannot be used to borrow abroad or to borrow long term, even domestically”. See also Goldstein and Turner (2004) among many others.

At the same time, it is acknowledged that there are a number of supporting factors deemed essential for financial sector development. These include *inter alia* a stable macroeconomic environment with low and stable inflation and interest rates, as well as fiscal discipline, to name a few requirements. The right balance in supervision and regulation also needs to be struck. Authorities must tackle information asymmetries that plague financial markets, while still providing the right incentives to foster a vibrant financial sector.

In this paper, we will be focusing on issues related to the development of financial markets in developing economies.[4] The analysis can usefully be divided into three components: the demand for funds, the supply of funds and the playing field where they meet, i.e. the market infrastructure. All of these components have an important role to play. On the demand for funds, the development path is usually led by the government, as the main issuer of debt. After meeting fiscal sustainability conditions, the government must have a transparent and predictable debt-management policy. The next building block would be to complement the government demand for funds with the needs arising from the private sector. Indeed, experiences across a range of countries, suggest that the latter is typically only possible after the government has set the path as the primary issuer of debt. On the supply side of funds, households are usually the main source of funding. As commonly accepted, household savings prefer to smooth consumption across time and states of the business cycle. In addition, globalization has made foreigners important players in financial markets as well in recent years, sometimes as suppliers and other times as demanders of resources. Market infrastructure is the last of the three components mentioned above, and basically involves all the aspects related to the environment where both suppliers and demanders of funds interact. Specifically, this covers current regulation, taxation of financial activities, payment systems, custody and settlement, pricing, financial innovation, etc. All

[4] The development of local financial markets, particularly of bond markets, has been very topical in recent years. Among many works on this issue, see the overview in IMF (2002) and De la Torre and Schmukler (Forthcoming) for a Latin American perspective.

these elements have an impact on the way financial systems fulfill their resource allocation function.

Focusing on the supply side of the market, institutional investors have an important role within financial markets since they manage a significant fraction of household savings in an economy. They can be defined as specialised financial institutions that manage savings collectively on behalf of small investors. The essential characteristics of institutional investors are: *Risk-pooling* for small investors, thus giving these investors a better risk-return trade-off as compared to direct holdings of financial assets by the investors themselves. There is also a preference for *liquidity,* and hence the preference for broad and liquid capital markets, and trading of standard instruments that allow a smooth adjustment of their holdings of financial assets. This shows why deep and sound financial markets would tend to foster the growth of institutional investors. Also the institutional investors' ability to gather and process *information* is far more efficient than that of individual investors. The *size* of institutions has a number of important implications, the most evident being economies of scale since they have the ability to trade in large volume and face much lower transactions costs. One problem with this financial arrangement is that unless fund managers are subject to good supervision or appropriate regulation, there would be a *principal-agent* problem.

Traditional institutional investors comprise pension funds, life insurance companies and mutual funds. The main difference between them arises from their liabilities. Pension funds provide the means for individuals to accumulate savings over their working life to finance their consumption needs in retirement. Return on savings may be purely dependent on the market (Defined Contribution funds, DC) or may be overlaid by a guarantee from the sponsor (Defined Benefit funds, DB). Life insurance companies have traditionally provided insurance for dependants against the risk of death, but are also used nowadays as a vehicle of long term savings (e.g. unit-link insurance contracts). Lastly, mutual funds differ from these long-term

institutions by offering short-term liquidity on pools of funds. They provide this service either for individuals or for companies and other institutions.

Institutional investors also play a role in financial market development. As large agents intermediating household savings, they are typically investors that hold securities to maturity, reflecting the interests of their pool of customers. In this respect, institutional investors are another building block of a virtuous circle in financial market development.

The previous discussion motivates the importance of financial market development and the role that institutional investors play in the process. With this background in mind, Section II of the paper describes some of the measures that different emerging market economies, both from East Asia and Latin America, have taken to foster the development of their financial systems.[5] These measures can be broadly divided into three types: non-regulatory / non-supervisory initiatives to develop the market for financial products, notably government bonds that provide benchmark yield curves; regulatory / supervisory initiatives that range from pension reforms to enhancement of regulatory frameworks to adoption of new accounting standards; and initiatives to enhance both physical and non-physical financial infrastructures. Section III then proceeds to discuss changes in the asset allocation of selected classes of institutional investors over the years and the factors that might have influenced these changes, including some of the measures covered in Section II.

[5] Eichengreen, Borensztein and Panizza (2006) offer a comparative perspective of the development of bond markets in East Asia and Latin America.

II. Initiatives to Develop Domestic Financial Markets in the Regions under Study

Background

Since the debt crisis of the 1980s, Latin America has experienced a wave of structural reforms oriented towards insulating economies from macrofinancial shocks. Although the timing of the reforms varied from country to country, a first step was trade liberalization, followed by the opening of the capital account. However, most changes to the financial markets took place during the 1990s, in an attempt to fight Latin America's chronic inflation. Reforms included an eventual adoption of a floating exchange rate regime in most countries,[6] as well as allowing the foreign ownership of the banking system and facilitating capital flows (e.g. there are few restrictions on foreign portfolio investment in Mexico).[7] In general, recent policies have been aimed at deepening local markets, where participants are predominantly local banks, mutual and pension funds, and in the last few years, external investors as well. The other objective of the policies has been to reduce external funding in order to attain sound and manageable levels of external debt.

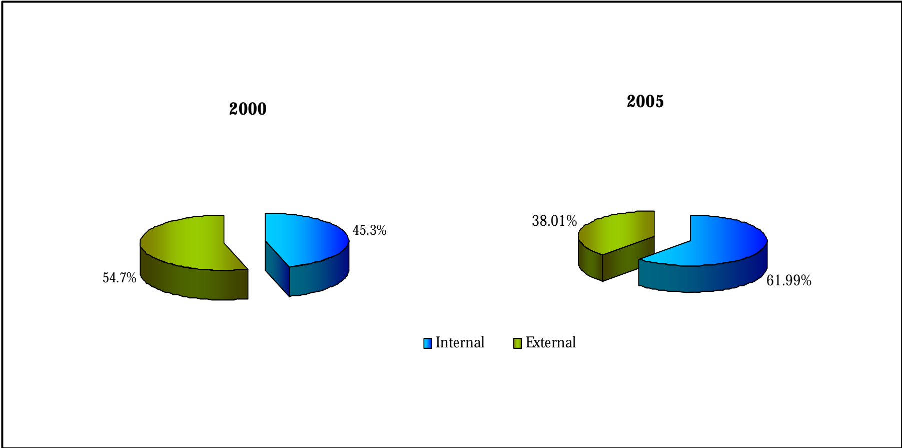
In the case of Mexico, the government sought to reduce its vulnerability to external debt shocks in the aftermath of the 1995 crisis. Its debt management policy has focused on expanding local debt markets by funding its financing needs in domestic currency (Chart 1). In addition, a prudent fiscal policy have allowed the government to manage the currency composition and maturity of its debt in a more proactive way, thus reducing currency and maturity mismatches. Also, a sounder fiscal policy has reduced the outstanding level of external debt and extended their maturity: average maturity of domestic debt has increased from about 230 days in 1995 to 1240 days in early 2006. To the extent that domestic financial markets

[6] Some small countries such as El Salvador and Ecuador moved in the opposite direction, fully dollarizing their economies.

[7] The degree of capital mobility varied somewhat across countries, with some of them (notably Bazil, Chile and Colombia) keeping some restrictions on capital movements at some moment.

have developed, substitution of external with internal debt has also taken place throughout Latin America in recent years.

Chart 1: Composition of Mexican Public Debt



Source: Secretaría de Hacienda y Crédito Púlbico.

One strategy implemented in Latin America to provide the financial system with certainty, was the introduction of indexation to the consumer price index. In Mexico, it is known as UDI (Unidad de Inversion), Chile has the UF (Unidad de Fomento) and Colombia the UVR (Unidad de Valor Real). With these units in place, inflation-indexed instruments could be issued.

In East Asia, various reforms have also taken place since the Asian Financial Crisis in 1997-98. These included improvements of fiscal and external positions besides further development of domestic financial markets and strengthening of financial regulation and infrastructure. The restrictions imposed by authorities in order to contain the Asian Financial Crisis have progressively been relaxed as the Asian financial systems strengthened. In recent years, bilateral and multilateral cooperation among East Asian economies on financial sector development has also become prominent. All these initiatives are aimed at not only to address weaknesses that led to the Asian Financial Crisis such as the lack of financial instruments in domestic currency and of sufficiently long maturity, over-reliance on bank-financing and a narrow investor base, but also to spearhead East Asia to the

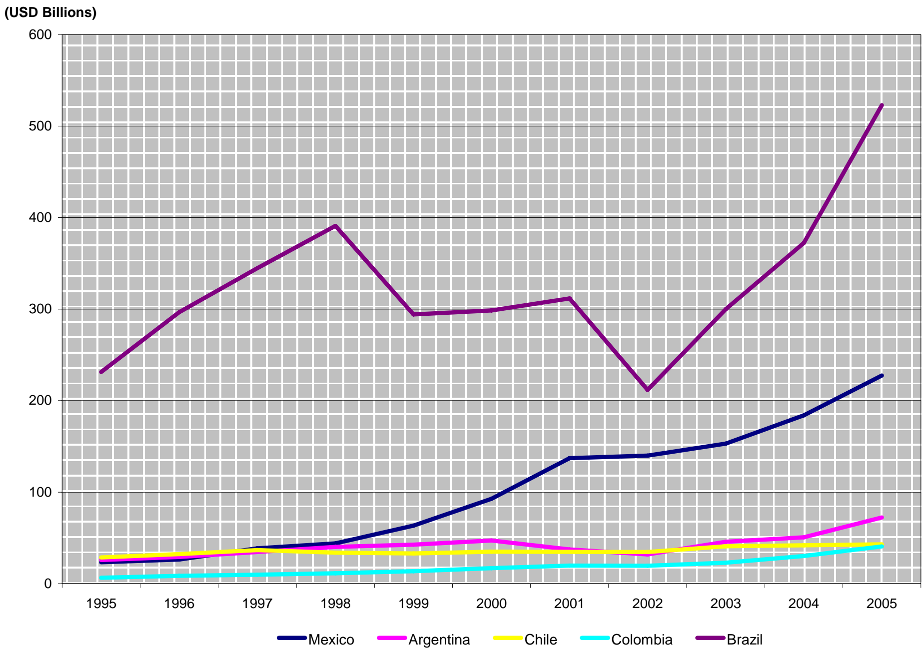
next level of economic development where financial services gain importance, amidst rising demand from an increasingly wealthy and financial-savvy household sector.

A) Financial Product

Developing the Yield Curve

Domestic debt markets have grown rapidly in Latin America, especially since 2002 (Chart 2).[8] As mentioned before, this has been in part the consequence of the substitution from external to internal debt undertaken by issuers (starting with the governments). Not surprisingly, Brazil and Mexico stand out as the larger markets in the region.

Chart 2: Domestic Debt Securities in Latin America (Amounts Outstanding for All Issuers)



Source: BIS.

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[8] See the overview in Jeanneau and Tovar (2006) for a recent discussion of Latin America's domestic bond markets.

At the same time, most of the Latin American countries have tried to develop yield curves that could act as benchmarks for the rest of the economy. In the Mexican cash market, the one-day overnight rate (*fondeo*) is the funding benchmark (Chart 3). Mexican Treasury Bills (CETES) are issued with maturities of 28, 91, 182 and 364 days. The yield curve was completed by incorporating instruments that were issued for the first time in 2000, namely fixed-rate semi-annual coupon bonds with maturities of 3, 5, 7, 10, 20 and 30 years.

The Argentinean yield curve is still being developed. Currently, the local tradable securities market is dominated by Treasury bonds and Central Bank (BCRA) papers. Despite the default on domestic and foreign debt earlier in the decade, fixed income securities issued by the Treasury subsequent to that are still performing. The money market yield curve is being developed by BCRA for the purpose of managing domestic liquidity. Recently, BCRA also introduced a policy repo rate. In addition, Argentina's Treasury issues bonds denominated in USD and in ARS with the principal adjusted for inflation (Bonos del Estado Nacional or BODEN).

The yield curve in Brazil (so-called *Pre Curve*) is built-up from overnight and projected CDI rates. Instruments issued by the Brazilian National Treasury are the zero-coupon floating rate bonds (LFT) whose values are indexed to the Selic rate, and the zero-coupon fixed notes (LTN) that range in maturity from four months to two years. It also issues notes with semi-annual coupon (NTN) which can be fixed-rate, inflation-linked or USD-linked. The maximum maturity currently issued for the fixed-rate notes is seven years, although the Treasury has announced that it intends to issue a ten year note in few months time.

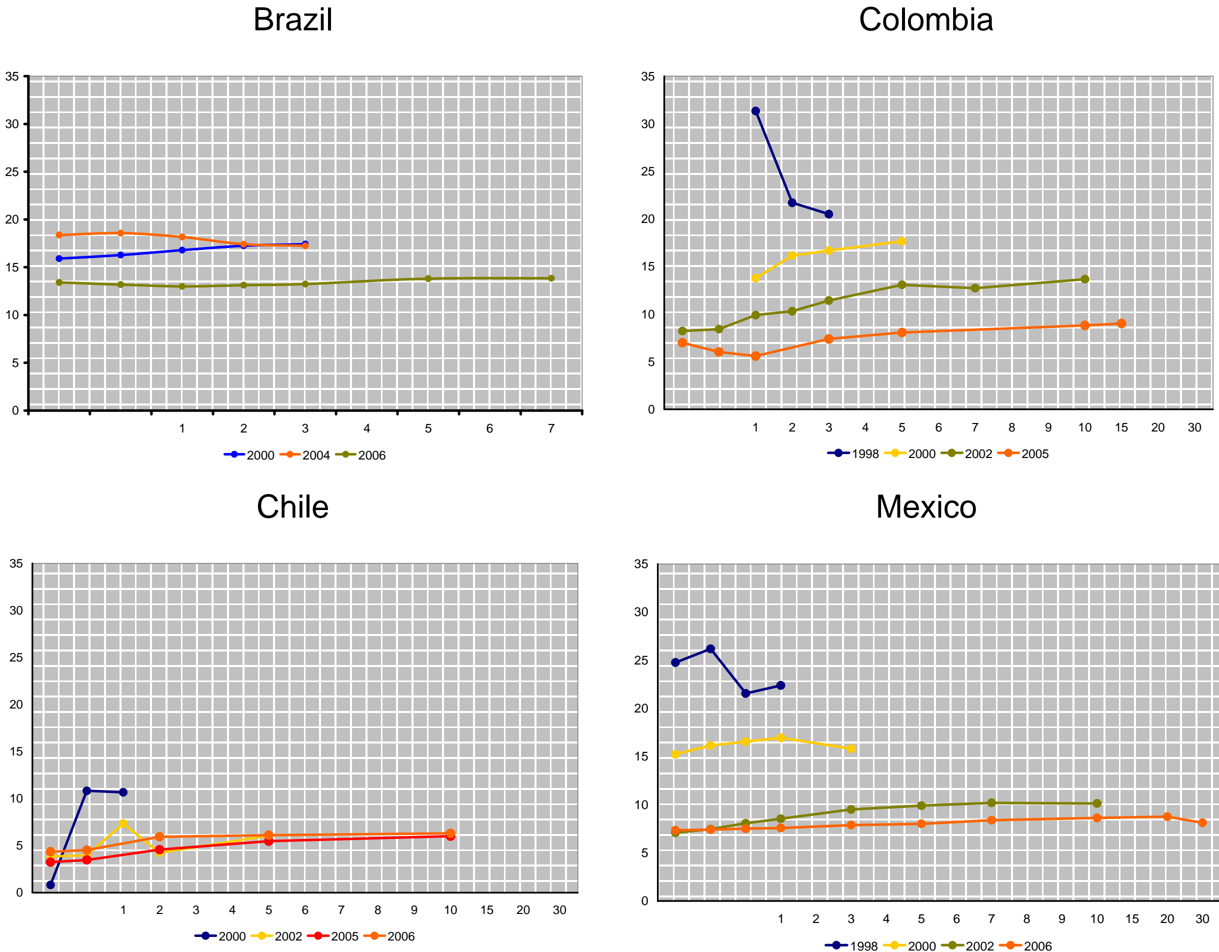
For Colombia, the bond yield curve exists for long tenors (up to 15 years) while the short-term segment is not very representative. In Chile, the yield curve has seen less development as the country enjoys a low level of outstanding public debt (a reflection of fiscal surpluses), as well as due to the long history of financial

indexation to the UF. Therefore, most of the debt has been issued by the Central Bank (BCCH).

Chart 3 shows how the yield curves in Latin America have extended in a matter of a few years in the early part of the decade. For instance, the Colombian and Mexican governments issued bonds with at most three and one year maturities respectively, in 1998. Two years later, they were able to issue bonds with tenors of ten years.

Chart 3: Yield Curves in Latin America

Fixed Rate Local Currency Government Bonds (in per cent)



Notes: For Chile, yields are for central bank issues, for Colombia TES bonds, for Mexico Cetes and M Bonos, for Brazil LTN and NTN-F notes.

Source: Local Monetary Autorities.

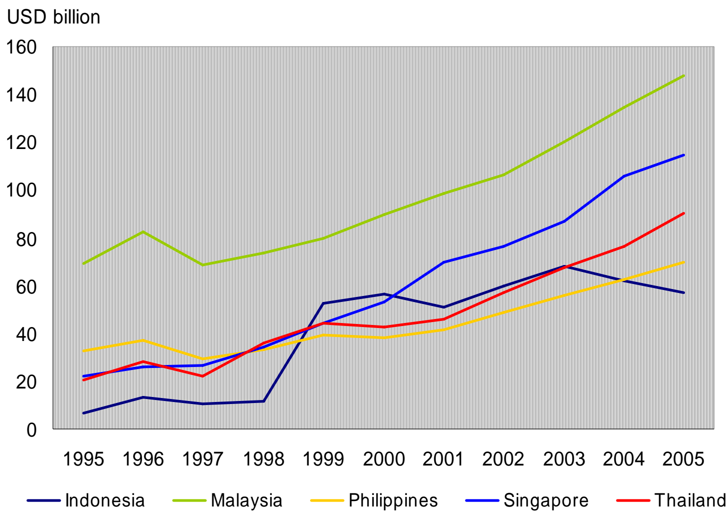
In the Southeast Asian region, the bond markets developed rapidly since the Asian Financial Crisis primarily as a result of efforts to recapitalize the banking sector or broader restructuring initiatives to reduce the dependence of the financial system on bank financing. In Indonesia, the government had issued recapitalization bonds through the Indonesian Bank Restructuring Agency (IBRA) following the crisis but replaced them with fixed and floating rate government securities following the statutory windup of IBRA in 2004. Thailand had stepped up issuance of government bonds for its financing requirements and to build a reliable yield curve in developing the government debt market. The latter reason was shared by Singapore, notwithstanding its healthy fiscal position. The development of the government bond market could have a positive effect on other markets that use the government yield curve as the pricing benchmark.

Over the years, the size of debt issuance in Southeast Asia has steadily increased (Chart 4). The government's debt issuance effort has often been supplemented by those of public agencies and the private sector. In the ASEAN-5 countries (Thailand, Indonesia, Singapore, Malaysia and Philippines), local and foreign currency bonds accounted for up to 95% and 30% respectively of GDP, as of December 2005. The government securities of these five economies are currently available in tenors of up to 14, 15, 15, 20 and 25 years respectively (Chart 5)[9]. Some of the Southeast Asian economies, for example Thailand and Singapore, have eased regulations to enable foreign entities to issue local-currency denominated bonds.

In Korea, the size of the government debt market has significantly increased such that the total amount of government debt issuance recorded KRW 170.5 trillion in 2005, roughly five times bigger than the 34.2 trillion in 1999. Also, the maturity of securities has been lengthened: Treasury bonds with 10- and 20-year maturities began to be issued from October 2000 and January 2006, respectively.

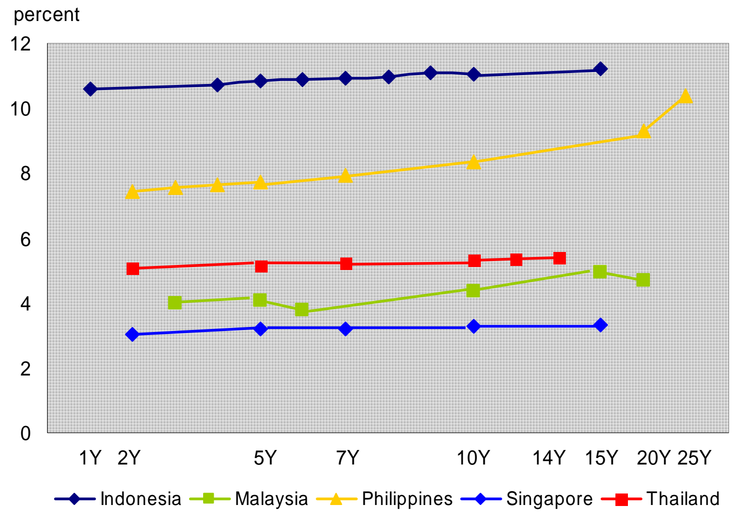
[9] Singapore will be issuing 20-year bonds in March 2007.

Chart 4: Size of Bond Markets of Selected Southeast Asian Economies



Source: ADB AsianBondsOnline

Chart 5: Yield Curves of Selected Southeast Asian Economies *(as at 20 Sep 06)*



Source: ADB AsianBondsOnline

Financial Cooperation Among Emerging Market Economies

Recognizing the need to develop the regional financial markets, in part to make financial systems more resilient, Asian countries have in recent years collaborated to encourage the development of selected products, integrate their markets and promote the region as a package to the rest of the world. These initiatives include the Asian Bond Funds and Asian Bond Markets Initiative (discussed below); ASEAN Linkages Task Force, which seeks to form an interlinked ASEAN securities marketplace by 2010; and ASEAN Finance Ministers Investor Seminars in leading financial centers, aimed at making the ASEAN securities markets more accessible to global investors. Such initiatives would broaden the range of investments for investors in Asia and elsewhere.

Asian Bond Fund (ABF) and Asian Bond Markets Initiative (ABMI)

In 2003, the Asian Bond Fund (ABF) was launched by the EMEAP central banks. ABF was an initiative to pool Asian reserves to invest in Asia. Encouraged by the

success of the first ABF, EMEAP central banks launched a second Asia Bond Fund (ABF2). While ABF1 invested in USD bonds, ABF2 would invest in local currency bonds. ABF2 comprises a Pan-Asian Bond Index Fund and a Fund of Bond Funds made up of sub-funds from eight EMEAP countries. EMEAP has been working closely with the International Index Company (formerly known as iBoxx) on a family of bond market indices, which can be easily used, replicated or customized by fund managers for their fixed income and derivative products (Table 6). ABF2 will further raise investor awareness of Asian bonds.

Table 6: iBoxx ABF Index Family (as of 31 August 06)

	Local Currency Bond Index	Hedged Total Return Index	Unhedged Total Return Index	Market Value (millions of local currency)	Annual Yield (%)
	(31 Dec 2004 = 100)				
China	113	121	118	2,206,765	3.24
Hong Kong	102	102	101	62,122	4.27
Indonesia	115	110	118	200,771,661	11.88
Korea	104	104	112	281,279,809	4.96
Malaysia	107	109	111	162,595	4.30
Philippines	136	129	150	588,456	9.02
Singapore	101	103	105	60,420	3.41
Thailand	105	103	109	1,173,571	5.36
Pan-Asia (hedged)	n.a.	107	n.a.	n.a.	4.91
Pan-Asia (unhedged)	n.a.	n.a.	111	n.a.	4.91

Source: International Index Company Limited

The Asian Bond Markets Initiative (ABMI) of the ASEAN+3 group aims to develop efficient and liquid bond markets in Asia, and contribute to the mitigation of currency and maturity mismatches. Under ABMI, international institutions such as the World Bank and Asian Development Bank (ADB) have issued local currency bonds in ASEAN+3 countries. These countries have continued to make efforts to promote product innovation and improve market access for issuers.

Tax Incentives

Tax incentive is one of the ways offered by Southeast Asian economies to develop their domestic financial markets. In Singapore, recent tax initiatives included those for commodities, real estate investment trusts and infrastructure finance. In Malaysia, interest income from bonds or securities issued by a specified list of issuers is tax exempt. Under the “Capital Market Development Master Plan”, the Stock Exchange of Thailand put forward new initiatives, which included special tax measures to promote long-term investment and savings through long-term equity funds. In the Philippines, government securities are exempt from capital gains tax while a 5% to 10% tax rate is levied on other debt securities. Tax incentives have also been granted to asset management companies or special purpose vehicles to help institutions in the Philippines securitise their assets.

In Korea, the tax incentives on private retirement savings, which were first introduced in 1994, included tax-exemption on income from private retirement savings and an annual income-deduction of 40% on individual retirement savings up to a maximum of KRW 720,000. Insurance, trust and investment trust companies were allowed to handle private retirement savings attracted by these tax incentives. In 2001, however, the tax incentives for private retirement savings were revised. The deduction on individual retirement savings was increased to 100% subject to a maximum of 2,400,000 KRW a year, while the tax-exemption on earnings from private retirement savings was abolished. The opening of new accounts offering the previous tax incentives was prohibited.

In Hong Kong, a bill for profit tax exemption to offshore funds has been proposed. According to the proposed bill, overseas institutional investors will be exempted from profit tax derived from securities trading transactions undertaken in Hong Kong. The proposal was aimed at attracting new offshore funds to Hong Kong, thereby reinforcing Hong Kong’s status as an asset management centre. Also, the scheme of tax concessions and exemptions on bond holdings, first implemented in

1992, has been continuously reviewed. The latest review which took place in 2003 includes the following features: Profit tax exemptions are granted to income earned on Hong Kong dollar debt securities issued by multilateral agencies with top credit ratings; interest income and trading profits derived from eligible debt securities can enjoy a concessionary tax rate equal to 50% of the standard profit tax rate; certain debt securities previously eligible for profit tax concession would be exempted from profit tax totally. In addition, effective from February 2006, the Estate Duty has been completely abolished. This is aimed at encouraging transfer of overseas investments by wealthy local individuals back to Hong Kong, and to encourage overseas investors to hold assets in Hong Kong through corporate vehicle/trust.

Securitization

To develop the domestic financial market, it would also be important to identify demands for funds. The practice of securitization is a recent development in Latin America since commercial banks have been the main players in the financial intermediation process. However, better legal frameworks and bankruptcy procedures, and the rising demand for residential housing, have produced opportunities for the growth of "structured finance".

As pointed by Jeanneau and Tovar (2006), the exact amount of structured transactions is not easy to calculate. Table 7 shows the trend that Latin America has experienced in recent years. Mexico, Brazil and Argentina accounted for 40%, 32% and 15% of the total volume of domestic business respectively. Credit-linked obligations, personal and consumer loans, and mortgage-backed securities amounted to 33%, 17% and 14% of domestic activity respectively.

The Mexican market for securitized assets only emerged in 2000, and it is already the most dynamic in Latin America. Sociedad Hipotecaria Federal (SHF), a state-owned development bank that began its operations in late 2001, has worked actively to develop a market for mortgage-backed securities (MBS). It has

encouraged issuers to introduce bonds with homogenous characteristics and has played an important role as an intermediary and liquidity provider in the secondary market for MBS.

Table 7: Issuance of Domestic Asset-Backed Securities in Latin America (USD millions)

Country	2000	2001	2002	2003	2004	2005
Argentina	1,590	701	130	226	525	1,790
Brazil	184	88	106	1,031	1,652	3,911
Chile	173	220	430	380	293	873
Colombia	55	63	597	510	799	323
Mexico	65	427	414	604	544	4,846
Peru	37	94	7	60	163	295
Total	**2,104**	**1,593**	**1,684**	**2,811**	**3,976**	**12,038**

Source:Moody's and Jenneau and Tovar (2006).

Brazil was the second most active market in 2005. Issuance reached $3.9 billion dollars compared with $1.7 billion dollars in 2004. The popularity of an investment vehicle known as Fundos Investimentos em Direitos Creditórios was responsible for this growing issuance. Such funds provide companies with an alternative to traditional bank credit, by enabling them to securitize their receivables.

Repo Regulations and STRIPS

Mexican regulations aimed at developing the long-term zero coupon government securities market (STRIPS), repo and securities lending were approved in 2004. The regulation for repo, securities lending and STRIPS became effective in September, February 2005 and March 2005 respectively. The development of these markets would eventually allow foreigners to finance their positions in the local repo market and provide pension funds with a broader supply of zero-coupon bonds required to protect the principal of their equity-indexed structured notes.

B) Regulation and Supervision of the Financial System

Pension Reform

One of the key reforms in Latin American countries involved shifting their pension systems from a Defined Benefit (DB) scheme to a Defined Contribution (DC) system, where social security contributions are typically deposited with private asset managers who manage the individual accounts. One of the first countries to introduce this reform was Chile in 1981, becoming a flagship for this kind of reform. Colombia changed its system in 1993, and Argentina and México in 1997. A late-adopter of this reform was Costa Rica in 2001. The main objective behind these reforms was to avoid the potential bankruptcy of the system, and also to promote savings in the economy through the creation of a new segment of institutional investors. Since the reforms were launched, the institutions in charge of managing the retirement accounts have played an important role in the development of the local debt markets.

Overall, the amount of assets under management by pension funds in Latin America has shown strong growth not only in nominal terms but also as a percentage of GDP (Table 8). The largest DC pension fund system is also the oldest: Chile's managers (AFPs) held almost 75 billion dollars (59% of GDP) of pension funds at end-2005. The second largest are Mexican managers (Afores) with 55 billion (only 7% of GDP) of funds. Next in size are Argentina and Colombia's pension fund managers with outstanding balances of 23 and 16 billion dollars respectively (13% and 17% of GDP).

Pension funds in Mexico (Afores) are one of the most important institutional investors, having become key market participants and even larger than mutual funds (which hold $47 billion dollars of assets under management as of 2005). New regulations, effective in January 2005, allow the funds' portfolio administrators

(Siefores) to invest up to 20% of their portfolios in foreign securities, and up to 15% in equity-indexed instruments. This will allow the funds to diversify their portfolios, which are still mostly invested in local federal government securities.

Table 8: Assets under Management in Latin American Pension Funds

Country	31/12/02	31/12/03	31/12/04	31/12/05
Millions of dollars				
Argentina	11,650	16,139	18,306	22,565
Bolivia	1,144	1,493	1,716	2,060
Chile	35,515	49,690	60,799	74,756
Colombia	5,472	7,322	11,067	16,015
Costa Rica	138	305	476	711
El Salvador	1,061	1,572	2,148	2,896
México	31,456	35,743	42,524	55,205
Perú	4,484	6,311	7,820	9,397
R. Dominicana		34	194	381
Uruguay	893	1,232	1,678	2,153
Total	**91,813**	**119,842**	**146,729**	**186,139**
Percentage of GDP				
Argentina	11.3	12.4	11.9	12.9
Bolivia	15.5	20.9	20.5	21.6
Chile	55.8	64.5	59.1	59.4
Colombia	7.7	8.8	10.2	17.2
Costa Rica	0.9	1.8	2.7	3.7
El Salvador	7.4	11.0	13.7	18.3
México	5.3	5.7	5.8	7.0
Perú	8.1	10.6	11.0	12.1
R. Dominicana		0.2	1.0	1.3
Uruguay	9.3	11.4	16.1	15.3
Average	**9.8**	**11.4**	**11.9**	**13.8**

Source: Asociación Internacional de Organismos de Supervisión de Fondos de Pensiones (http://www.aiosfp.org/estadisticas.html).

In Korea, a mandatory corporate pension system came into effect at the beginning of 2006. Under the new regulations, firms must opt for a DB pension scheme, a DC pension scheme or a lump-sum-type retirement payment scheme. The DB and DC

pension schemes are very similar to those in the United States and the United Kingdom. The traditional form of retirement payment for workers in Korea before the introduction of the new system had been that of lump-sum retirement payments. In addition, in 2001, life insurance companies were allowed to handle variable life insurance. According to the regulations, life insurance companies are required to establish a special account to manage variable life insurance so that insurance payments can be directly linked to the profits/losses of fund management. In addition, a mutual funds system was introduced in September 1998. However, the most popular collective investment schemes in Korea so far are investment trusts, which were introduced in 1969. As of the end of June 2005, the total assets of mutual funds were equivalent to 3.8% of the total outstanding balances of investment trusts.

In Hong Kong, the Mandatory Provident Fund (MPF) schemes was implemented in December 2000. Under the MPF, employed persons aged between 18 and 65 with a monthly income above HK$5,000 are required to contribute 5% of their income, subject to a maximum contribution of HK$1,000 per month, with the employer matching the employee's contribution. All MPF schemes assets are managed by registered investment companies/managers. There are certain restrictions on exposure to different asset classes. Every MPF fund must have at least 30% Hong Kong dollar exposure. This is to be achieved by either investing in Hong Kong dollar denominated assets, or have other investments swapped back into Hong Kong dollars. The total amount invested in securities issued by any one person is limited to 10% of the total asset of an MPF scheme.

In India, a new Defined Contribution pension system has been introduced, which is applicable to all government employees recruited after January 1, 2004. This new pension system will be regulated by Pension Fund Regulatory and Development Authority (PFRDA) promulgated through an ordinance on December 30, 2004. All pre-January 2004 employees can also voluntarily join the new scheme to get an additional benefit. To a large extent, the new pension schemes will resemble

mutual funds, and subscribers will have a choice of parking their savings (a) predominantly in equity, (b) debt & equity mix, or (c) entirely in debt instruments and government papers. Many of the major players in the mutual fund and insurance industries are set to enter the pension sector, which is expected to grow to INR 500 billion by 2010.

In the Southeast Asian region, the level of development of the pension system varies across countries. Singapore and Malaysia have established pension systems which are characterised mainly by mandatory defined contribution-type public pension funds, while other Southeast Asian economies generally have a mix of mandatory-voluntary, defined benefit-defined contribution and public-private types of pension funds. There have been ongoing discussions on developing pension systems in those economies which still have underdeveloped pension schemes.

Introduction / Enhancement of Regulatory Frameworks

To develop the domestic financial sector, the authorities in the Southeast Asian region have tried to keep up with market developments by introducing or enhancing regulatory frameworks on financial products. This would help broaden the range of products available to institutional investors. As a result, there are now a greater number of derivatives available, for example, although the degree of activity varies across countries (Table 9). The low interest rate environment in the last couple of years might have increased the attractiveness of some of the newer types of investments.

One of the asset classes that has been the recent focus of several Southeast Asian economies is Real Estate Investment Trust (REIT). In 2000, Singapore was one of the first Asian markets to offer REITs when it changed its regulatory framework besides introduced tax incentives to encourage the listing of REITs in Singapore. In 2005, MAS strengthened its Property Fund Guidelines further. As at

August 2006, there were thirteen REITs listed on the Singapore Exchange with an aggregate market capitalization of more than SGD15 billion. The Malaysia Securities Commission (SC) also revised its guidelines on REITs recently to attract new players and enhance awareness among local players and property owners/developers on the benefits of establishing REITs. In 2005, the Thai Securities and Exchange Commission (SEC) approved a revision of regulations on the management of property funds for the public, to introduce greater flexibility and thereby promote property fund investment.

Table 9: Derivatives Markets in Selected Southeast Asian Economies

	Indonesia	Malaysia	Philippines	Singapore	Thailand
EXCHANGE TRADED DERIVATIVES					
Govt bond futures	Not available	Active	Not available	Limited	Not available
Interest rate futures	Not available	Active	Not available	Active	Not available
Interest rate / bond options	Not available	Not available	Not available	Limited	Not available
OTC DERIVATIVES					
Interest rate derivatives					
Interest rate swap	Active	Active	Limited	Active	Active
Interest rate caps / collars	Not available	Limited	Not available	Active	Limited
Cross currency swaps	Limited	Active	Limited	Active	Active
Forward rate agreements	Limited	Active	Limited	Active	Active
Basis swaps	Not available	Not available	Not available	Limited	Not available
Credit derivatives					
Credit default swaps	Not available	Not available	Not available	Active	Not available
Total return swaps	Not available	Not available	Not available	Active	Not available
Credit swap options	Not available	Not available	Not available	Active	Not available

Source: ADB Asia Bond Monitor, Nov 2005 issue.

Table Note: OTC derivatives in local currency.

Another asset type that has gained much attention in the Southeast Asian region is Islamic or Shariah-compliant products. Recent initiatives include Malaysia's issuance of guidelines on Islamic REITs. Malaysia's effort to develop its Islamic

market has seen the number of Islamic funds in the country reach 77 in 2005. Singapore refined its regulations to allow the offering of Murabaha Islamic finance and the introduction of Shariah-compliant term products and index in recent years. A review of the regulations for Shariah products has been lined up for Indonesia's economic policy package, as the country ends its economic program with the IMF. Other product classes that have seen the introduction or enhancement of regulatory frameworks include exchange traded funds, securitized assets, structured products and trusts.

Other enhancements to the capital market infrastructure in Southeast Asia have included development efforts at strengthening exchanges. The Singapore Exchange and the Chicago Board of Trade formed a 50/50 venture to establish a commodity derivatives exchange known as the Joint Asian Derivatives Exchange (JADE), which is targeted for launch by end 2006. In 2005, the Philippines established the Fixed Income Exchange, which facilitates paperless selling and buying of government securities, corporate debt papers and asset-backed securities through a virtual trading floor. In Thailand, the development of its derivatives market saw the establishment of a derivatives exchange, which started operations in April 2006.

In Korea, there have been a number of regulatory changes to institutional investors' asset management. First, regulations on insurance companies' asset management were eased significantly in 2003. The limits on stock investment and lending to those not holding insurance contracts, previously set at 40% of total assets, were abolished. The limit on bond investment had been abolished earlier in 1994. The limit on investment in real estate was increased to 25% from 15% of total assets, and the investment limit on foreign securities and real estate was increased to 30% from 20%. Second, the scope of investible assets of investment trust companies and mutual funds was widened in 2003. They were allowed to invest in OTC derivatives and real assets including real estate. They had

previously been allowed to invest only in stocks, bonds, short-term financial instruments and derivatives traded on formal markets.
In China, insurance companies were allowed to invest in stocks in October 2004. The limit on stock investment, however, was set at 5% of total assets. The People's Bank of China (PBC) announced a plan to adopt a Qualified Domestic Institutional Investor (QDII) system in May 2005. Domestic financial institutions satisfying certain conditions in terms of asset size and soundness will be designated as QDIIs and be allowed to invest in foreign securities within a certain limit.

In the case of Latin America, financial authorities have taken important steps which have yielded mixed results in developing futures and derivative markets (Table 10). Mexico is one of the few countries in Latin America with significant derivatives markets. The derivatives exchange market (*MexDer*) was created in 1999. The number of contracts traded in this market has increased significantly since 2004, when the first Siefores were authorized to trade derivatives. Currently, contracts at the MexDer include futures on: 28-TIIE rates (the most liquid one), Cetes, Mexican Stock Exchange (Bolsa), USD, Udibonos, 3 and 10 year Bonos and some corporate paper. In IRS, the curve extends from three months to 30 years. Finally, FRAs are traded mostly among domestic participants, and contracts are referenced to the 28-day interbank equilibrium rate (TIIE).

Argentina has a non-deliverable forward (NDF) and options market, which is liquid, with tenors up to one-year maturity frequently traded. Trade sizes range between $10-20 million and spreads are around 50 basis points. Trading of onshore options (including FX, interest rate swaps and future contracts) was recently approved by the BCRA after being constrained for three years. Liquidity in onshore options is expected to increase gradually in 2006.

Brazil's derivatives market has both FX and interest rate instruments. Futures, calls and put options are traded onshore due to the non-convertibility of the Brazil

real. Dollar futures contracts have as reference the PTAX exchange rate and are traded on the Bolsa de Mercadorias e Futuros, which is Brazil's Commodities and Futures Exchange. Good liquidity is available for futures with tenors below one year. Call and put options are also traded onshore at the same exchange. However, liquidity is lower than in futures. Swaps in the Brazilian market are primarily traded as OTC products.

Table 10: Derivatives Markets in Selected Latin American Economies

	Mexico	Chile	Brasil	Argentina
EXCHANGE TRADED DERIVATIVES				
Government Bond Futures	Availiable	Availiable	Availiable	Availiable
Interes Rate Futures	Availiable	Availiable	Availiable	Availiable
Interest Rate / Bond Options	Not Availiable	Availiable	Availiable	Not Availiable
OTC DERIVATIVES				
Interest Rate Derivatives				
Interest Rate Swap	Availiable	Availiable	Availiable	Availiable
Interest Rate Caps / Collars	Availiable	Availiable	Availiable	Availiable
Cross Currency Swaps	Availiable	Availiable	Availiable	Availiable
Forward Rate Agreements	Availiable	Availiable	Availiable	Availiable
Basis Swaps	Availiable	Availiable	Availiable	Availiable
Credit Derivatives				
Credit Default Swaps	Availiable	Availiable	Availiable	Availiable
Total Return Swaps	Availiable	Availiable	Availiable	Availiable
Credit Swap Options	Availiable	Availiable	Availiable	Availiable

In comparison to Colombia, Peru and Venezuela, where futures and derivatives markets are virtually nonexistent, Chile is one of the most developed markets in this field. It has an active OTC market in currency forwards. Its onshore forwards market has both deliverable and non-deliverable contracts. Its cross-currency swaps between UF and USD are liquid up to 1 year tenor, and UF linked swaps are more liquid than nominal peso swaps.

Adoption of Risk Based Capital Framework & New Accounting Standards by Insurance Companies

Efforts to develop the domestic financial market include raising the standard of regulations and practices of domestic financial institutions. In 2004, the MAS introduced a risk-based capital (RBC) framework for insurance companies. The changes from the new framework that may have implications for insurers' asset allocation include the valuation of assets at market value and the introduction of explicit capital charges for market and credit risks, and duration and currency mismatches.[10] While it is still early to assess the full impact, industry feedback suggest that there could be a shift away from equities and cash towards bonds (to minimize duration mismatch) and from lower- to higher-grade bonds (to minimize credit risk). In Malaysia, a RBC framework for insurers is expected to take effect in 2008. In the mean time, investment limits for credit facilities and foreign assets have been relaxed while more property-related securities could be treated as admitted assets. These initiatives were aimed to improve investment performance, enhance the asset-liability structure, facilitate portfolio diversification or enable hedging of foreign currency exposures.

With effect from 2005, insurance companies in Singapore are required to comply with two key accounting standards, namely FRS 39 on recognition and measurement of financial instruments and FRS 104 on insurance contracts under Singapore accounting standards. In the Philippines, insurance companies adopted the Philippine Financial Reporting Standards and the Philippine Accounting Standards, which were adapted from the revised International Financial Reporting Standards (IFRS) and International Accounting Standard (IAS) respectively. The Malaysian Accounting Standards Board recently introduced a new set of Islamic accounting standards for leasing, tax, deferred sales and insurance products.

[10] "Risk-based Capital Framework for Insurance Business", MAS Consultation Paper 14-2003, November 2003.

In Korea, a plan to change the regulatory framework for insurance companies has been released by the Financial Supervisory Commission in June 2005. According to the plan, a RBC regulatory framework for insurance companies will be adopted from the year of 2007, replacing the current operating framework, which is similar to Solvency I in the EU.

In Hong Kong, new accounting standards, derived from the revised IAS, have been adopted from January 2005. In particular, the new accounting standards included changes in recognition and measurement of values of financial instruments, derived from IAS 39. Unless satisfying certain conditions, financial instruments held by institutions, including fund managers, need to be recorded at their fair (marked-to-market) values. This will tend to increase an institution's reported earnings (portfolio performance) volatility. Should reduction of earnings volatility become a major objective, the way portfolios are managed, including asset allocation decisions, would be affected.

C) Financial Infrastructure

Enhanced Infrastructure for Securities Transactions

Good infrastructures are essential for the development of financial markets. Over the years, the Southeast Asian economies have taken steps to improve infrastructures for securities transactions, ranging from information systems to systems for trading, clearing and settlement of transactions.

Some of the information systems allow for real time access to trading activity thus raising transparency and efficiency (for example Singapore's recently launched e-bond platform with Bloomberg on Singapore Government Securities and Malaysia's Bond Information and Dissemination System on Malaysian debt

securities). Trading activities in some of the ASEAN economies are conducted in systems with Straight-Through Processing (STP) feature (e.g. Indonesia's Fixed Income Trading System for scripless corporate bonds and Philippines' Bloomberg e-bond system used by banks in the secondary market). For almost all of the ASEAN-5 economies, clearing and settlement of securities transactions tend to be carried out on a Delivery versus Payment (DVP) basis and often in Real Time Gross Settlement (RTGS) systems. The STP, DVP and RTGS features help to reduce transaction risks, thus raising confidence to trade in the related securities.

Market Makers

An important action undertaken in Latin America to stimulate the growth of debt markets was the establishment of a program of market makers. In 2000, the Mexican government introduced a program of market makers with the objective of providing liquidity to the secondary market of Federal Government fixed-income securities (BONOS and CETES). The financial entities allowed as market makers were banks and brokerage houses. In order to create a more complete market, new regulations introduced in 2003 gave market makers the right to borrow securities from the central bank, and the right to buy government securities at certain times after the weekly primary auctions (a call option). The introduction of market makers has been a key initiative for the development of Mexico's local market by improving the scarce liquidity in the money market. Among other countries that have similar programs are Colombia and Peru.

Price Vendors

Another important element that can be mentioned in this brief review of recent financial market development is the appearance of price vendors in Latin America. Valuation of financial instruments at market values is meaningless without representative market prices. Therefore, in countries such as Mexico, marking to market has been possible, thanks to commercial firms that provide market prices.

Nevertheless, this practice is not yet widespread in the region, where historical accounting is still the norm.

Increased Transparency and Improved Corporate Governance

Transparency and improved corporate governance have become essentials sought after by increasingly savvy investors. Under the “Capital Market Development Master Plan”, the Stock Exchange of Thailand put forward new initiatives that included reforming the IPO subscription process to ensure fair accessibility, as well as promote good governance and strengthen market surveillance. The Philippines central bank undertook further steps to foster the development of the bond market by encouraging the entry of more credit rating agencies as they play an important role in guiding investors towards more informed decision-making. In Malaysia, a new Witness Protection Bill would give legal protection to those who alert the authority of corporate misconduct. In Singapore, the MAS recently enhanced regulations on disclosures, to enable small issuers to raise funds without incurring significant regulatory costs.

III. Changes in the Asset Composition of Institutional Investors

The key aim of investments is to achieve an optimal trade-off between risk and return of a portfolio of appropriately diversified assets (and in some cases liabilities, i.e. leveraging the portfolio by borrowing). The precondition for such an optimal trade-off is the ability to attain the frontier of efficient portfolios, where there is no possibility of increasing return without increasing risk, or of reducing risk without reducing return. The exact trade-off chosen will depend on objectives, preferences and constraints on investors. In the particular case of institutional investors, their objectives could be quite different.

The investment process is often divided into several components, with *strategic* asset allocation referring to the long term decision on the disposition of the overall portfolio, while *tactical* asset allocation relates to short term adjustments to this basic choice between asset categories in the light of short term profit opportunities, so-called “market timing”.

The above and Section I cover, in a very general way, the objectives and investment processes of institutional investors. However, these vary from investor to investor, and from country to country. The differences can be explained, in part, by differences in the regulatory frameworks, which imply that the same type of institutional investors across countries could exhibit different investment behaviour. Among institutional investors within the same country, the regulations may also vary since each institutional investor class has different investment objectives, and hence be subject to different aspects of regulation. In addition, the problem of information asymmetry may differ across different types of institutional investors. Some would argue that life insurance companies and pension funds should be regulated independently to ensure, for instance, that tax benefits are not misused and that the goals of equity, adequacy and security of retirement income are achieved - correcting the market failures in annuities markets that may necessitate pooled pension funds and social security.

A) Latin America

In Mexico, the asset allocation of institutional investors is subject to heavy restrictions by regulators. Insurance companies are regulated by the Comision Nacional de Seguros y Fianzas (CNSF), mutual funds are under the supervision of the Comision Nacional Bancaria y de Valores (CNBV) and the private pension funds by the Comision Nacional del Sistema de Ahorro para el Retiro (CONSAR). These regulatory entities set limits of how insurance company assets can be invested, limits on the type of assets that can be acquired and the maximum share of various assets in the overall portfolio. For insurance companies, the restrictions are primarily on the credit quality of the instruments. Mexican pension funds are now allowed to invest in foreign securities up to a limit of 20%. In equities, the limit is 15%. Also, most of the pension funds are allowed to use derivatives. Similar restrictions are seen in the rest of Latin America but the specifics vary from country to country.

Table 11 indicates how the asset allocation of pension funds in Latin America changed from 1999 to 2005. The data shows that pension fund managers in Latin America rely heavy on government debt: the majority of the countries sampled invest more than half of their portfolios in government debt. In fact, two countries (Mexico and El Salvador) have pension funds investing more than four fifths of their portfolios in government papers. In terms of trends, there are five countries where pension fund managers have become more concentrated in government debt from 1999 to 2005 (Argentina, Bolivia, El Salvador, Peru and Uruguay). Exceptions to the above-mentioned pattern are pension fund managers in the Dominican Republic, Uruguay, Chile, Peru and Chile who rely heavily on debt issued by financial institutions (Dominican Republic, Uruguay and Chile), equities (Peru) and foreign issuers (Chile).

Table 11: Distribution of Assets Managed by Latin American Pension Funds

Country	TOTAL (millons of US$)	Government Debt	Financial Institutions	Non-Financial Institutions	Stocks	Mutual Funds	Foreign Issuers	Others
		(percent of total assets of the funds)						
				December 1999				
Argentina	16,787	52.3%	15.5%	2.1%	20.5%	6.3%	0.4%	2.9%
Bolivia	592	67.2%	32.4%	0.4%	0.0%	0.0%	0.0%	0.0%
Chile	34,501	34.6%	33.2%	3.8%	12.4%	2.6%	13.4%	0.0%
Costa Rica	165	90.3%	8.8%			0.9%		
El Salvador*	213	64.6%	31.7%	0.0%	3.7%	0.0%	0.0%	0.0%
México	11,430	97.4%	0.1%	2.5%	0.0%	0.0%	0.0%	0.0%
Perú	2,406	7.1%	39.3%	15.4%	37.1%	0.6%	0.0%	0.5%
Uruguay	591	60.1%	36.0%	1.9%	0.0%	0.0%	0.0%	2.0%
Total	**66,685**	**49.6%**	**23.2%**	**3.5%**	**12.9%**	**12.9%**	**7.0%**	**0.8%**
				December 2005				
Argentina	22,565	60.9%	5.1%	1.8%	13.4%	8.1%	8.9%	1.8%
Bolivia	2,060	70.0%	6.8%	13.5%	6.3%		2.5%	0.9%
Chile	74,756	16.4%	28.9%	6.8%	14.7%	2.8%	30.2%	0.2%
Colombia	16,015	47.3%	10.4%	14.4%	11.3%	2.0%	10.4%	4.3%
Costa Rica	711	72.1%	13.2%	5.3%	0.2%	3.2%	2.7%	3.4%
El Salvador	2,896	81.0%	12.7%	6.3%	0.0%			
México	55,205	82.1%	4.2%	11.8%	0.4%		1.5%	
Perú	9,397	20.3%	11.1%	10.7%	36.4%	2.8%	10.1%	8.7%
R. Dominicana *	381		96.8%	3.2%				
Uruguay	2,153	59.5%	36.8%	2.7%	0.1%			0.9%
Total	**186,139**	**46.4%**	**15.9%**	**8.5%**	**10.6%**	**2.4%**	**15.1%**	**1.1%**

* Refers to individual capitalization pensions.

Source: Asociación Internacional de Organismos de Supervisión de Fondos de Pensiones (http://www.aiosfp.org/estadisticas.html).

Data on other institutional investors is sparse, but some inferences regarding their asset allocations can be inferred from anecdotal evidence. For instance, mutual funds in the region are very sensitive to redemptions, forcing them to hold very liquid instruments with short maturities. Moreover, given the chronic history of Latin America, several mutual funds offer inflation or exchange rate risk protection. For insurance companies, the case of Mexico is illustrative: they also hold large amounts of government bonds (preferring a balanced mix in terms of fixed and floating rate; MXN, USD or UDI denominated) and small amounts of equities and other assets.

B) East Asia

Insurance Companies

Over the past ten years or so, the size of life insurance assets in the Southeast Asian region has increased many folds, with Singapore life insurers seeing the largest increase of more than four times (Table 12). The rise, which reflects more policy liabilities being underwritten, could be partly attributed to increased consumer awareness and knowledge of insurance products. Another reason for the overall surge in insurance assets and liabilities could be the transfer of risks to policyholders facilitated by investment-linked products, which has enabled life insurers to aggressively grow both sides of their balance sheet.

The asset composition of life insurance companies has shifted towards securities holdings during the period. The shares of life insurers' debt securities have more than doubled for Singapore and Thailand, primarily at the expense of their cash & deposits and loans assets. Malaysia life insurers shifted smaller but nonetheless still remarkable shares of their portfolios towards debt and equity securities. Life insurers in the Philippines, on the other hand, made smaller changes to the shares of overall securities holdings but gave significantly more weight to debt securities in recent years. On the whole, securities holdings now account for 55%-85% of life insurers' total assets in these economies. This compared with the shares of securities holdings of around 50% a decade ago. Thus, there appears to be some evidence that initiatives to develop domestic bond markets as discussed in the earlier sections of this paper, might have contributed to this shift in life insurance companies' asset composition.

Table 12: Asset Distribution of Life Insurers in Southeast Asian Economies

1995

Country	Total assets (millions of USD)	Non-Financial Assets	Cash & Deposits	Debt Securities	Equity Securities	Loans	Others
		percent of total assets					
Singapore	9,318	7.8%	18.8%	25.6%	30.5%	15.8%	1.5%
Thailand	5,009	4.0%	23.0%	23.6%	23.8%	19.5%	6.1%
Malaysia	6,951	5.2%	20.2%	48.9%		22.2%	3.6%
Philippines	2,547	34.3%	1.8%	20.6%	22.7%	19.0%	1.6%

2005

Country	Total assets (millions of USD)	Non-Financial Assets	Cash & Deposits	Debt Securities	Equity Securities	Loans	Others
		percent of total assets					
Singapore	50,124	4.0%	5.4%	54.1%	31.7%	4.1%	0.8%
Thailand	15,067	1.1%	2.6%	66.8%	16.3%	8.2%	5.0%
Malaysia	20,812	4.4%	10.5%	69.7%		12.4%	3.0%
Philippines	4,523	25.7%	1.5%	47.5%	9.6%	13.4%	2.2%

Source: Bank Negara Malaysia, Monetary Authority of Singapore, Philippines Insurance Commission, CEIC.

Table Notes: i) Equity securities for Thailand include convertible debentures and warrant on common stocks; ii) Debt securities column for Malaysia includes equity securities; iii) Data for Philippines as at 2004 in lower table. Debt securities include short-term investments assumed to be money market transactions.

In the case of Korea, the size of life insurance assets has increased significantly and the asset composition has shifted towards bonds (Table 13). The share of life insurers' debt securities has more than tripled at the expense of their equity securities and loans assets. Initiatives to develop domestic bond markets might have contributed to the shift of asset composition in Korean life insurance companies, just like in the case of the Southeast Asian region.

Table 13: Changes in Asset Composition of Korean Life Insurers

Year	Total assets (billions of KRW)	Non-financial assets	Investment Trusts	Debt Securities	Equity Securities	Loans	Other
		percent of total assets					
1995	69,026.2	-	3.1%	13.3%	13.0%	48.1%	22.5%
2005	264,920.7	-	5.8%	47.1%	5.8%	20.5%	20.8%

Source: Bank of Korea

Pension Funds

For many of the ASEAN economies, the size of pension funds is bigger than that of insurance funds, particularly in Singapore and Malaysia where there are mandatory defined contribution-type public pension funds (Table 14). The asset composition of pension funds in the ASEAN region is similar to that of their life insurance counterparts, with more than half of the portfolios allocated to securities. A large percentage of the securities are debt assets, particularly government papers, reflecting prudent investments of retirement monies, although this could also be due to the greater availability and accessibility of securities assets on the back of improved infrastructures over the years. There have been discussions of pension reforms in ASEAN economies with underdeveloped pension schemes such as Thailand and Indonesia, which could have implications for the size of pension savings and asset allocation going forward.

Table 14: Asset Distribution of Pension Funds in Southeast Asian Economies (2004)

Country	Total fund (millions of USD)	Cash & Deposits	Debt Securities	Equity Securities	Loans	Others
		percent of total fund				
Singapore	70,413	2.7%	96.4%	0.0%	0.0%	0.9%
Thailand	8,186	41.4%	42.1%	13.7%	0.0%	2.8%
Malaysia	76,709	10.3%	47.9%	23.2%	16.0%	2.6%
Indonesia	n.a.	70.9%	12.0%	4.1%	0.7%	14.2%
Philippines	10,027	n.a.	n.a.	n.a.	n.a.	n.a.

Source: Singapore Central Provident Fund Board, Bank Negara Malaysia, Philippines Government Service Insurance System (GSIS), Philippines Social Security System (SSS), Philippines Securities Exchange Commission, OECD Global Pension Statistics.

Table Notes: i) Data for Malaysia based on total assets; ii) Data for Philippines comprises GSIS, SSS and half of pre-need industry assets. The latter was estimated from the share of pension plans in pre-need industry sales, of 50%.

In the case of Korea, the size of pension fund assets has doubled during the past decade (Table 15). Like the case of Korean life insurance companies, the asset composition of pension funds has shifted towards bonds. The share of pension funds' debt securities have more than doubled, reaching 31.7% of total asset at the end of 2005 from 12.1% at the end of 1995, while that of pension funds' equity securities reduced to 6.1% from 10.9% over the same period.

Table 15: Changes in Asset Composition of Korean Pension Funds

Year	Total assets (billions of KRW)	Non-financial assets	Investment Trusts	Debt Securities	Equity Securities	Loans	Other
		percent of total assets					
1995	11,131.7	-	21.8%	12.1%	10.9%	26.5%	28.7%
2005	24,512.3	-	19.4%	31.7%	6.1%	28.7%	14.0%

Source: Bank of Korea

In the case of Hong Kong, pension funds are acting as so-called fund of funds, investing in other funds. The pension fund system in Hong Kong (MPF) was introduced in 2001. The asset composition of HK pension funds has remained almost the same during the period between 2001 and 2005, while the size of total assets has increased by more than 400% (Table 16). The most popular form of HK pension fund investment during the period has been balanced funds.

Table 16: Changes in Asset Composition of Hong Kong Pension Funds

Year	Total assets (millions of HKD)	Non-financial assets	Bond Funds	Balanced Funds	Equity Funds	Other Funds
		percent of total assets				
2001	36,013	-	0.6%	47.2%	16.9%	35.3%
2005	151,360	-	1.2%	51.5%	18.0%	29.3%

Source: Hong Kong Monetary Authority

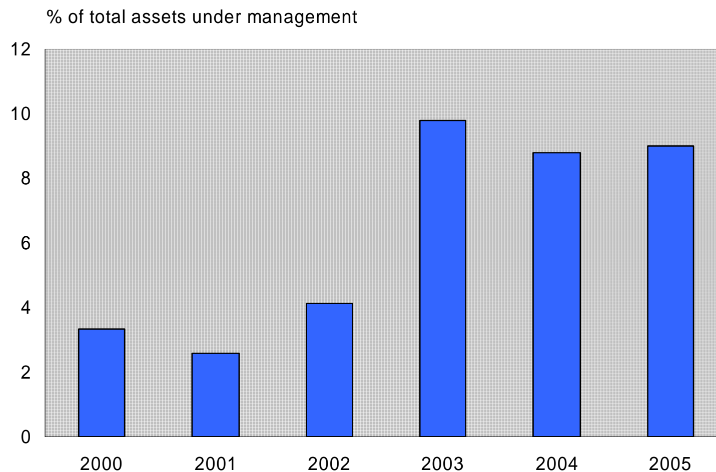
Investment Funds

The investment funds industry in the Southeast Asian region, while fairly similar in size to the insurance industry, comprises a large number of players with small balance sheets. Some funds' investment mandates evolve over time as the market environment changes.

A survey of selected institutions in Singapore in conjunction with the CGFS project on "Institutional Investors, Global Savings and Asset Allocation" found that a large percentage of portfolios was allocated to international securities, partly to reduce concentration risk although this consideration was balanced against customer preference and the additional volatility sometimes contributed by foreign securities. The MAS Asset Management Surveys found evidence of asset managers now

allocating a greater share of their portfolios to alternative investments such as hedge funds and real estate instruments, in order to achieve risk diversification besides optimise the risk-return profiles of their portfolios (Chart 17). The rising importance of alternative investments could in part be due to authorities' efforts to encourage product innovation such as through tax incentives or the introduction of the appropriate regulatory frameworks. Another reason could be a more financially savvy household sector that now demands better returns on their investments. Three out of four institutions surveyed as part of the CGFS project have seen an increase in household interests in instruments with minimum return guarantee.

Chart 17: Alternatives Investments of Non-Bank Asset Managers in Singapore



Source: Monetary Authority of Singapore (Asset Management Survey)

Note: Instruments include hedge funds, private equity, real estate and other investments.

In the case of Korea, the most popular form of indirect investment vehicle is investment trusts. Although a mutual fund system was introduced in 1998, the size of mutual fund asset was nothing compared to that of investment trusts up to now. The asset composition of Korean investment trusts has shifted towards shares at the expense of short-term financial instruments during the past decade, unlike the case of Korean life insurance companies and pension funds. The shift seems to have been based on Korean investors' pursuit of higher rate of returns, following some structural changes in interest rate movements. Interest rates in Korea, which

kept lowering during the period between 1998 and 2004, increased since 2005. In fact, the share of bonds in the asset composition of Korean investment trusts recorded 52.7% at the end of 2004, which is much bigger than 39.6%, the share of bonds at the end of 2005 (Table 18).

In the case of Hong Kong, the share of bonds in the asset composition of HK mutual funds has increased to 22.1% at the end of 2005 from 11.2% at the end of 1995, while the share of equities declined a little from 67.4% to 53.4% during the period. The total asset of HK mutual funds has increased sharply during the period, recording 667 billion US dollars at the end of 2005, almost eight times bigger than that in 1995.

Table 18: Changes in Asset Composition of Investment Funds

1995

Country	Total assets	Bonds	Shares	Other
		percent of total assets		
Korea	75,972 [1)]	63.6%	17.7%	18.8%
Hong Kong	82,361 [2)]	11.2%	67.4%	21.4%

Table Notes: 1) billions of KRW; 2) millions of USD

2005

Country	Total assets	Bonds	Shares	Other
		percent of total assets		
Korea	198,354 [1)]	39.6%	16.9%	43.5%
Hong Kong	667,585 [2)]	22.1%	53.4%	24.5%

Table Notes: 1) billions of KRW; 2) millions of USD

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