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# Time for Asian Pension Systems to Take Center Stage

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## Key Insights

- In many parts of Asia, the population is aging rapidly without sufficient pension protection.
- In 2012, nearly 450 million people, or 11 per cent of Asia's population, were 60 years and over. By 2050, this number will more than double to 1.2 billion people, or 24 per cent of the population, not far behind projections of 27 per cent in North America and 34 per cent in Europe. Old-age dependency ratios will rise rapidly in Japan, South Korea, Greater China, Singapore and India.
- Private pension funds in nine Asian economies[1] amounted to US$663 billion or only 5.3 per cent of GDP in 2011, far below the OECD average of 70 per cent (US$30 trillion). By comparison, banking assets for these nine countries amounted to 112 per cent of GDP.
- Partly because of lower interest rates, pensioners face a problem of lack of income from their financial assets (predominantly bank deposits) for adequate retirement purposes, and in an aging economy this will have long-term repercussions on policies to raise domestic demand to support economic growth. For social protection and income equality reasons, developing pension and social security funds within Asia is a top priority.
- Pension reforms should enhance the adequacy of retirement income to widen coverage, reduce disparities between public and private sector pension schemes and ensure the long term sustainability of pension funds through sound investment strategies and good governance.
- At the same time, pension funds can also significantly contribute to capital market development and also more efficient long-term resource allocation that adds to systemic financial stability. Assuming that the GDP of emerging Asian economies reaches US$29 trillion in 2030 (Sheng 2013), an increase in pension assets to 30 per cent of GDP would mean that nearly US$9 trillion of pension funds are available in the region for investment.
- Because pension funds take the long view, they can contribute to long term investments in growth sectors such as infrastructure, green technology, small and medium enterprise (SME) financing and social enterprises. This will reduce over-reliance on bank financing that is inherently subject to the risks of maturity mismatch. Effective pension management also improves corporate governance of the enterprise sector since institutional investors will take the long view and exercise discipline against short-termism.
- To enable pension funds to play an active role in financial and capital market development, Asian governments should give priority to promoting pension funds by adopting the following five major strategies in their reforms:
    - Maximize the coverage and the funded component of their pension systems (i.e., defined contribution schemes) in order to supply the economy with a large pool of funds with committed long-term horizons.
    - Deepen capital markets to provide pension fund managers with a wide range of investment options that ensure high returns on their long-term investments.

[1] China, Hong Kong, India, Indonesia, South Korea, Malaysia, The Philippines, Singapore and Thailand.

- Provide proactive regulatory support in terms of tax incentives for pension contributions and liberalize current restrictions on asset allocation by pension fund managers by allowing them to invest in alternative growth assets apart from bonds and equity.
- Raise the level of professionalism and administrative expertise in pension fund management to maintain the trust of contributors and other stakeholders in the governance of the industry.
- Foster connectivity between pension fund management and stakeholders through data availability and transparency.

## Introduction

If Asia is to account for more than 50 per cent of global GDP and at least half of global financial assets and savings by 2050 (Kohli, Sharma, and Sood 2011), it will need a financial system that has markets and institutions to effectively mobilize savings for investment in the development of the region. Pension funds in East Asian economies will feature as an important component of the Asian financial system in coming decades because they are already a major source of domestic savings with the potential to grow even bigger because of ongoing programs in individual countries to enhance the coverage and adequacy aspects of their national pension systems. Based on OECD data available for 2011, private pension funds in nine selected Asian economies amounted to US$663 billion in 2011, or 5.3 per cent of GDP. In comparison, the size of pension funds in the 34 developed economies of the OECD was US$30 trillion or 70 per cent of GDP in 2011, and rose further to US$33 trillion by the end of 2012. The upside potential growth of Asian pension funds is therefore tremendous, and so too is the future role of the pension industry in providing greater social security and in deepening capital markets in the region.

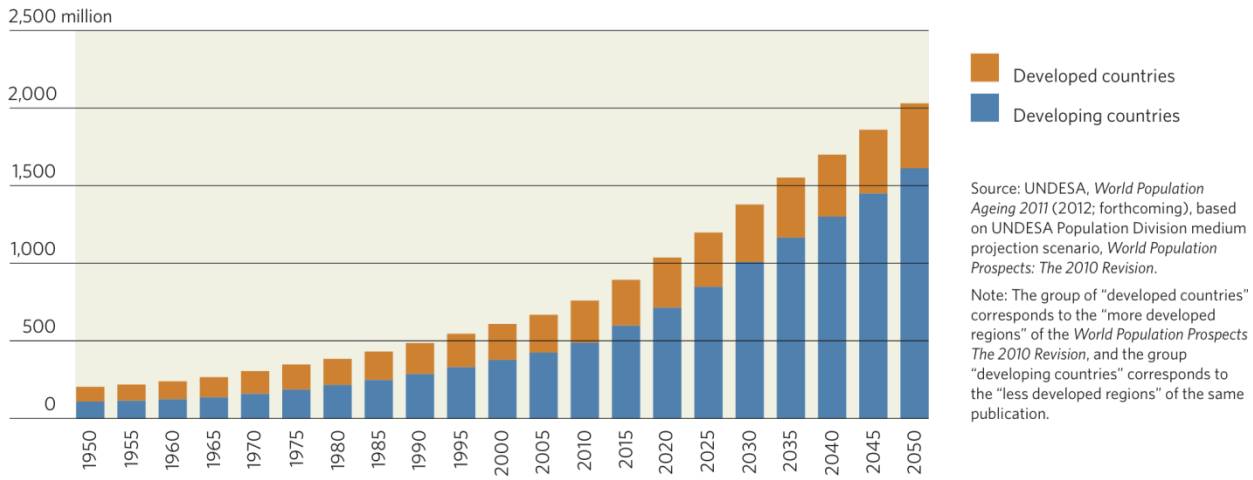
For pension funds to play an effective role in the future of finance in Asia, governments and policymakers will need to think about pension reform within a wider framework. Besides seeking to prepare pension systems for a rapidly aging population in terms of adequacy and sustainability, it is important to improve the coverage and fairness of pension systems across different sectors of the workforce, have pension schemes that can accommodate labor mobility and urbanization, and liberalize pension schemes to support deeper capital markets while enhancing their resilience to market volatility and financial crises.

The purpose of this paper is to review the current state of pension systems in emerging Asian economies, the challenges they are facing in terms of adequacy and sustainability, and the pension reform measures that are being considered to address these challenges. By providing this overview, the final part of this paper is to link pension systems to the future of the Asian financial architecture, and suggest how pension funds should be shaped to become a major mobilizer of funds for productive investment in the real sector of emerging economies in the region.

## I. Current State of Pension Systems in East Asia

Pension systems in Asia are being affected by the worldwide phenomenon of aging populations and increasing longevity, and are concerned with their ability to cope with these issues. Developing countries are experiencing the fastest rate of increase in aging. In 1950, there were 205 million people aged 60 years and above in the world. By 2012, this number had quadrupled to almost 810 million, and it is expected to reach 1 billion in another ten years or so. By 2050, the United Nations Population Fund projects a doubling of the number of elderly in the world to 2 billion (UNFPA 2012). In Asia, nearly 450 million people (or 11 per cent of the population) were 60 years and over in 2012. By 2050, this number will rise to 1.2 billion (or 24 per cent of the population), not far behind that of 27 per cent in North America and 34 per cent in Europe.

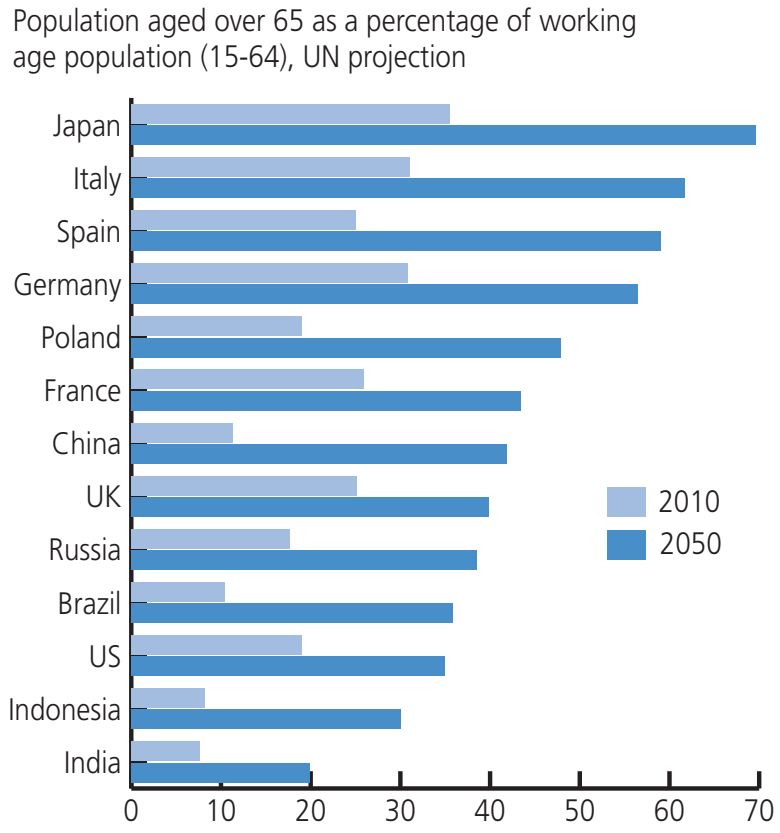
**Figure 1: Number of People Worldwide Aged 60 and Over, 1950-2050**




An aging population, combined with increasing longevity, leads to another set of problems for pension systems, namely, a rise in the old-age dependency ratio.[2] According to United Nations estimates, the dependency ratio for the world as a whole will reach 25.4 per cent in 2050 from 11.7 per cent in 2010. At the top end of Asian countries is Japan, where the ratio will more than double from 35 per cent in 2010 to 74 per cent in 2050, with South Korea not too far behind. At the other end of the spectrum is the rest of Asia, where dependency ratios are still relatively low but are expected to rise rapidly in coming decades as in the case of China (2010: 11.6 per cent; 2050: 38.8 per cent). Aging is also catching up in India, as reflected in the dependency ratios of 8.7 per cent in 2010 and an estimated 21 per cent by 2050. If not addressed, the problems of this generation will have to be borne by the next generation (See Figure 2).

[2] The old-age dependency ratio measures the number of elderly people aged 65 and above against the number of people in the working age group of 15 to 64 years. For example, a ratio of 25 per cent means that one elderly person is being supported by 3 persons of working age, while a ratio of 75 per cent means that one working person is supporting three elderly.

**Figure 2: Elderly Dependency Ratios by Country**




Source: UN Population Division: World Population Prospects: 2010 Revision, reproduced in The CityUK, Pension Markets, March 2013, Financial Market Series.

## Existing Pension Systems in Asia

Existing pension systems in Asia differ from country to country in terms of design features and institutional arrangements[3]. However, they share similar problems and challenges that revolve around fundamental issues of equity, adequacy and financial sustainability:

**Equity**: Most countries have a mix of pension systems that provides significantly different benefit levels with varying degrees of certainty to different groups. A central issue is the disparity between the defined contribution (DC) schemes of the private sector and the more generous defined benefit (DB) schemes of the public sector.

[3] More detailed country reviews are available in an FGI background paper: *Pension System Reform, Part 1: Mapping the Landscape - Survey of Pension Systems in Selected East Asian Countries*, September 2012.

**Table 1: Types of Pensions in Asia-Pacific**

| Country | Type of pension scheme | | | Country | Type of pension scheme | | |
|---|---|---|---|---|---|---|---|
| | Public | | Private | | Public | | Private |
| | DB | DC | DC | | DB | DC | DC |
| **East Asia/Pacific** | | | | **South Asia** | | | |
| China | | ● | | India | ● | ● | |
| Hong Kong, China | | | ● | Pakistan | ● | | |
| Indonesia | | ● | | Sri Lanka | | ● | |
| Malaysia | | ● | | | | | |
| Philippines | ● | | | **OECD Asia/Pacific** | | | |
| Singapore | | ● | | Australia | | | ● |
| Thailand | ● | | | Canada | ● | | |
| Viet Nam | ● | | | Japan | ● | | |
| | | | | Korea | ● | | |
| | | | | New Zealand | | | |
| | | | | United States | ● | | |

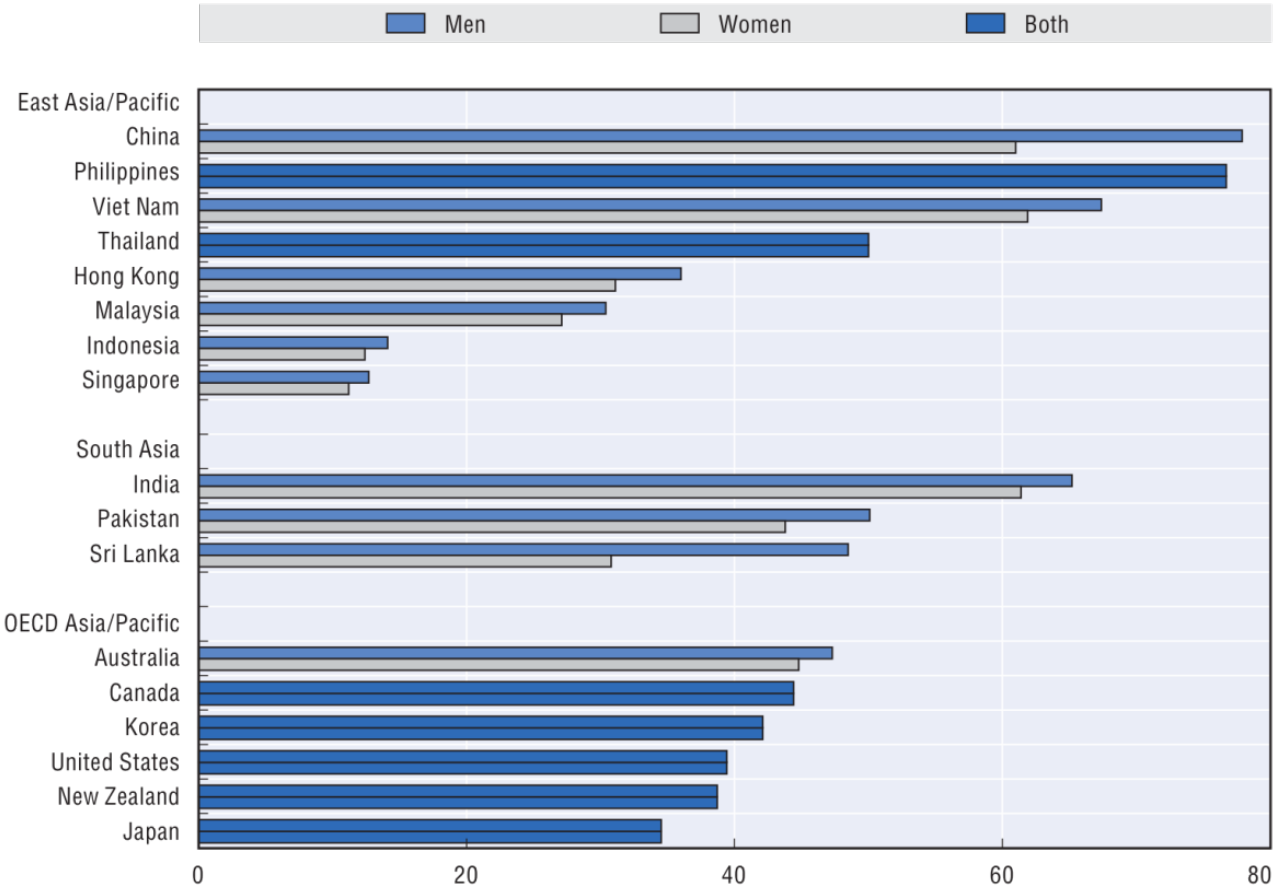
StatLink http://dx.doi.org/10.1787/888932554413

Source: OECD, Pensions at a Glance, 2011, OECD Publishing 2012.

**Adequacy:** A relatively early retirement age of between 55 and 60 years in most Asian countries and an average life expectancy of 71 to 75 years of age imply a need for adequate funds to provide for at least 15 to 16 years of post-retirement income security. Hence, the issue of adequacy of retirement benefits applies mainly to retirees in the formal private sector who are covered by defined contribution schemes. Under defined contribution schemes, pension payments depend on the level of defined contributions by the employee and the employer, the length of employment and the returns on investment. Upon retirement and the receipt of lump sum payments, the retiree has to bear the risk of longevity, besides having borne the risk of investment. In addition, the practice of allowing pre-retirement withdrawal of pension savings to finance house purchases, medical care and educational provisions will also exacerbate the adequacy problem.

**Sustainability**: A sustainable pension scheme is one that can consistently deliver benefits over the long term within an acceptable range of costs. The issue of sustainability affects public sector pension schemes. In most Asian countries, civil service employees are generally covered by their governments' defined benefit schemes. Retirees receive a pension for life with the size of the pension being defined as a percentage of income (usually the last drawn salary) and the total number of years of service during the career. DB schemes are non-funded pay-as-you-go (PAYG) schemes that use government current revenues to pay the pensions. The replacement rate (i.e., the proportion of base salary paid as pension) for public sector schemes, ranging from 50 to over 70 per cent in some instances, is as good as the average norm of 57 per cent in OECD countries. High replacement rates and increasing longevity are the main factors affecting the overall sustainability of defined benefit schemes (see Figure 3).

**Figure 3: Replacement Rates**




Source: OECD, Pensions at a Glance, 2011, OECD Publishing 2012.

**Coverage**: Coverage generally refers to the proportion of the labor force that is covered by mandatory pension schemes. For OECD countries, the coverage averages 83 per cent of the labor force, much higher than the average in Asia. Most Asian countries have coverage rates of less than 60 per cent of the workforce with high-population countries, such as China, India and Indonesia, clustered around the lower end of 10 to 20 per cent (see Table 2).

## Table 2: Coverage of Mandatory Pension Schemes by Population and Labor Force

| Country | Year | Members | Percentage of population aged 15 to 65 (%) | Percentage of labour force (%) |
|---|---|---|---|---|
| **East Asia/Pacific** | | | | |
| China | 2005 | 159 032 000 | 17.3 | 20.7 |
| Hong Kong, China | 2008 | 2 921 815 | 55.6 | 78.0 |
| Indonesia | 2002 | 15 683 000 | 11.3 | 15.7 |
| Malaysia | 2008 | 5 746 477 | 32.5 | 47.0 |
| Philippines | 2008 | 7 863 340 | 14.1 | 26.5 |
| Singapore | 2008 | 1 610 000 | 45.3 | 62.9 |
| Thailand | 2005 | 9 700 000 | 21.0 | 25.9 |
| Viet Nam | 2005 | 5 805 000 | 10.8 | 13.5 |
| **South Asia** | | | | |
| India | 2004 | 38 650 000 | 5.8 | 9.2 |
| Pakistan | 2004 | 3 465 400 | 4.0 | 7.2 |
| Sri Lanka | 2004 | 2 945 000 | 22.1 | 34.6 |
| **OECD Asia-Pacific** | | | | |
| Australia | 2005 | 9 578 000 | 69.8 | 90.7 |
| Canada | 2005 | 15 950 000 | 71.3 | 89.8 |
| Japan | 2005 | 63 560 000 | 75.0 | 95.2 |
| Korea | 2005 | 11 832 710 | 34.3 | 49.5 |
| New Zealand | 2003 | 1 921 300 | 72.3 | 92.7 |
| United States | 2005 | 141 129 000 | 71.5 | 92.1 |
| **Other G7** | | | | |
| France | 2005 | 24 319 400 | 61.4 | 87.9 |
| Germany | 2005 | 36 156 000 | 65.6 | 87.6 |
| Italy | 2005 | 22 146 000 | 57.1 | 90.2 |
| United Kingdom | 2005 | 28 402 200 | 71.5 | 92.3 |
| **OECD34** | | | **62.9** | **82.8** |

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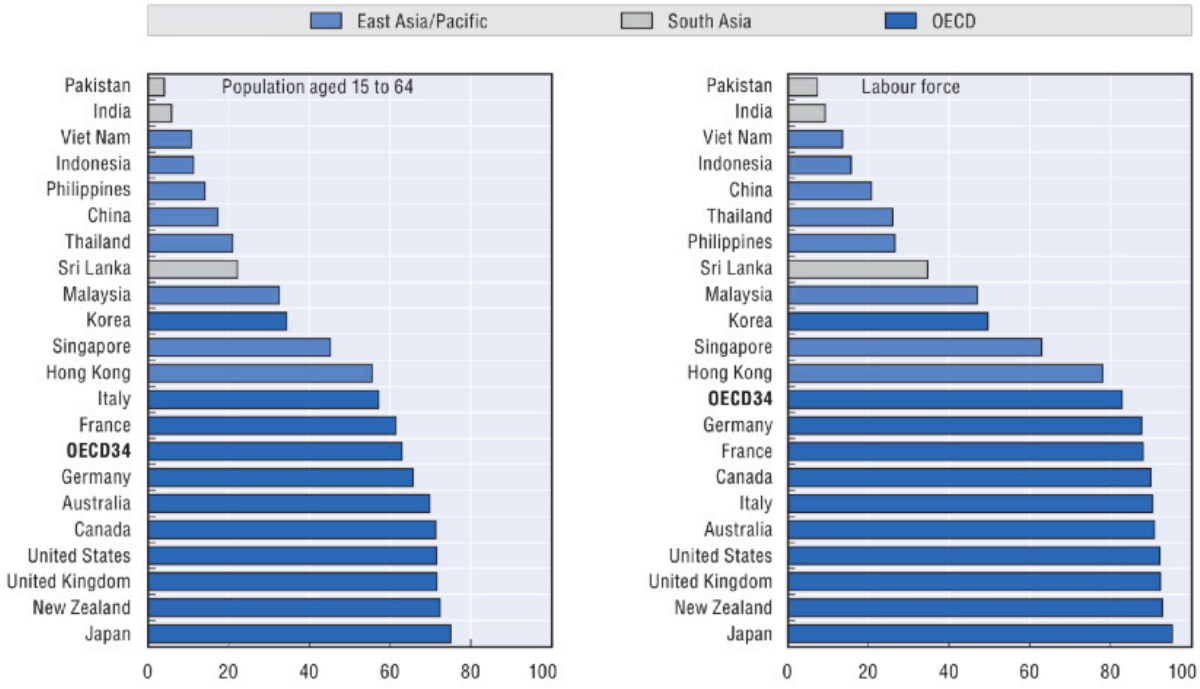
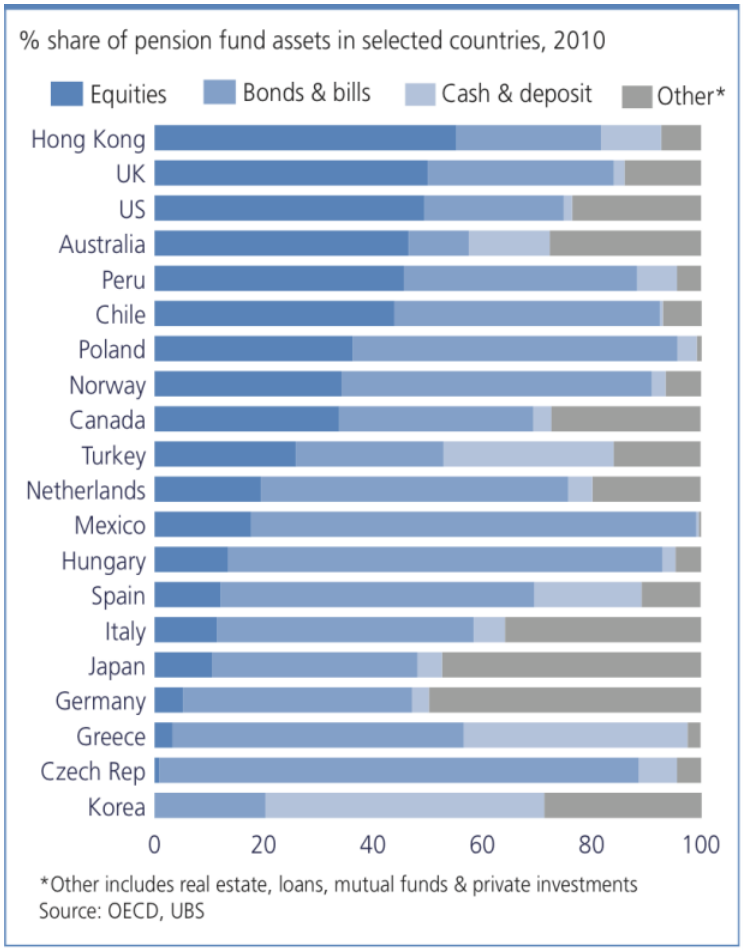



Source: Pensions at a Glance Asia/Pacific 2011. OECD 2012.

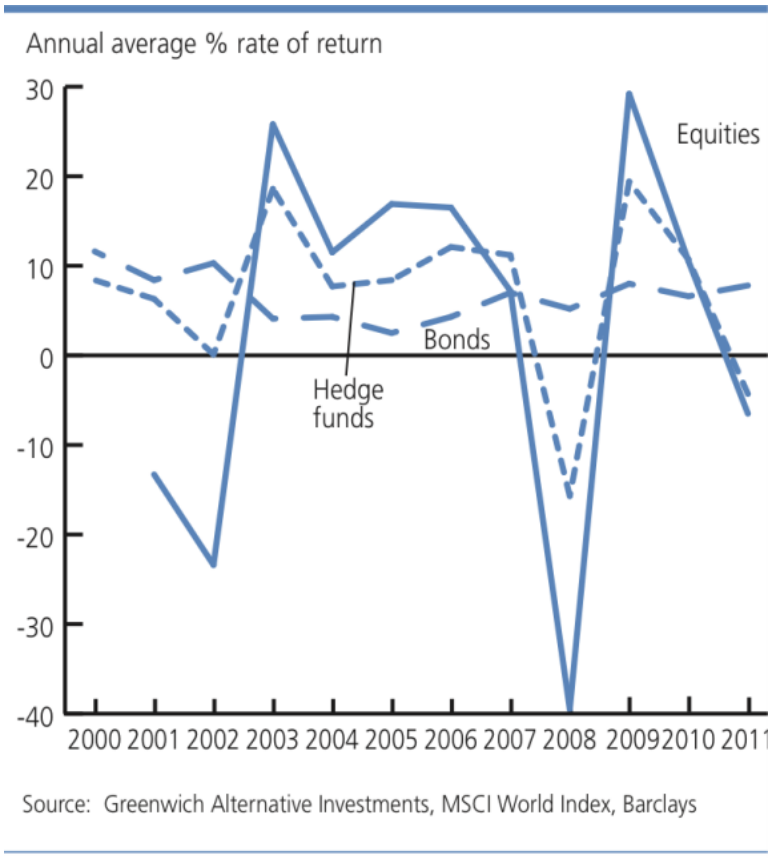
**Returns on investment**: Private pension funds in Asia are closely regulated and conservatively managed with most of their funds being invested in low-risk and low-return portfolios, primarily in government bonds with smaller equity and real estate.

**Figure 4: Allocation of Pension Fund Assets**




Fortunately, Asian pension funds were not affected as badly as the European and Japanese ones, which suffered negative returns on their investments because of a series of non-conventional government and monetary measures to suppress interest rates and reduce debt payments. However, the European and Japanese experiences have demonstrated how vulnerable pension schemes are to the volatility of financial markets (see Figure 5).

**Figure 5: OECD Pension Funds Real Rate of Return**

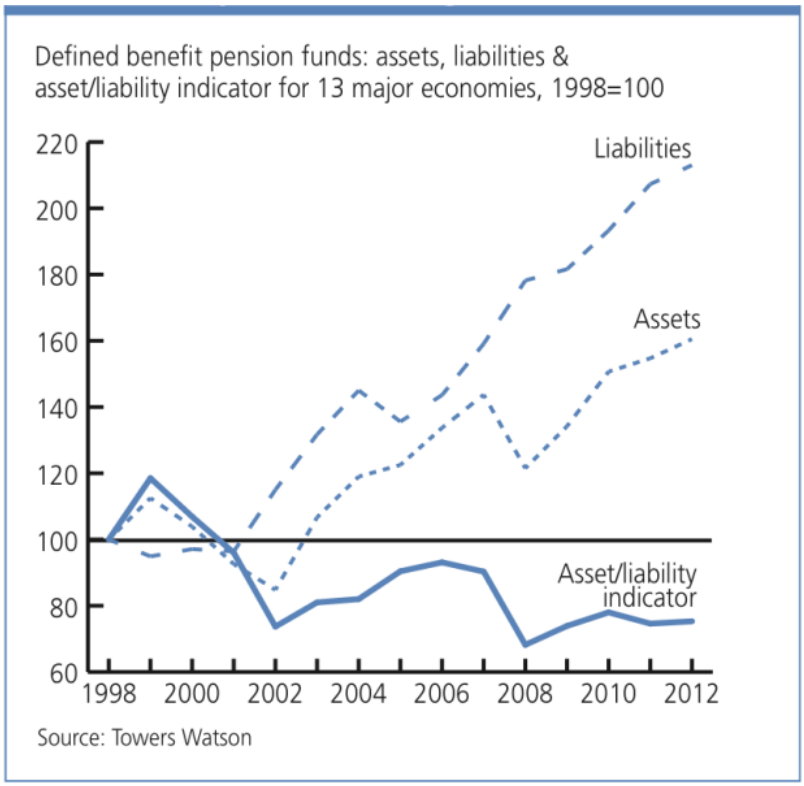



Source: TheCityUK Pension Markets March 2012.

## II. The Direction of Pension Reform

Ongoing policy reactions and programs to reform pension systems typically address the adequacy issue by raising contribution rates, extending the retirement age and introducing additional savings for old age through voluntary private schemes (frequently referred to as the third pillar of pension systems). These policy reforms differ from country to country. However, the area that is gaining most interest from fund managers and professionals working for defined contribution schemes is alternative investment products that would offer greater protection against volatile financial markets, especially in light of the repercussions of the global financial crisis on the outstanding value of pension funds. Traditionally, pension funds are risk averse and the bulk of their investments are in government bonds and equities. Since the global financial crisis and the onset of a prolonged period of monetary easing, bearish trends in the equity markets, low interest rates and a consequent fall in government bond yields, returns on pension funds' portfolios have declined sharply and even turned negative in many cases. This has left many corporate pension funds and even some public pension funds in Europe and the United States with growing financing gaps (see Figure 6).

**Figure 6: Asset Liability Indicator for Global Markets**




Source: TheCityUK, Pension Markets, March 2013.

Hence, many of the current discussions on strengthening pension systems focus on new models to address funding gaps, recognizing that improvement in investments will be the main driver of future pension systems globally.

World Finance, in its survey of pension funds for the purpose of the magazine's 2012 Global Pension Funds Awards, identified U.S. pension funds, which account for more than 60 per cent of total pension assets worldwide, as having suffered the worst from the global financial crisis. "The crisis resulted in company pension funds becoming massively underfunded, forcing workers to reassess their retirement funding plans, often radically", such as opting out of their plans altogether (World Finance 2012).

At the state level, even the California Public Employees Retirement System (CalPERS), the largest public pension fund in the United States, suffered a record loss of 23 per cent in its asset value in 2009, requiring local governments and state agencies to increase their contributions to make up for the loss. The US$262 billion fund has turned around since 2010, buoyed largely by higher returns on its real estate portfolio, but returns on investment remained at a dismal level of 0.1 per cent in fiscal year ended June 30, 2012 (CalPERS 2012), falling far short of its target annual investment return of 7.5 per cent using actuarial assumptions. The emerging funding gap has made it imperative for the fund to focus on new approaches to asset allocation and risk management, which include exploring opportunities for infrastructure investments in energy, water and transportation. Canada's largest pension funds have also successfully diversified

their investments in infrastructure, real estate and emerging market equities including toll roads in Chile, timberlands in Australia, real estate in Brazil, gas pipelines in the United States and large parts of London's Heathrow Airport.

McKinsey, in its 2013 report on infrastructure productivity, observed that for infrastructure development to keep pace with global GDP growth, over US$57 trillion in investment will be required between now and 2030 (MGI 2013). Given the fiscal constraints of many governments, large institutional investors like pension funds, sovereign wealth funds and the insurance industry can become major sources of funding for infrastructure.

In the developing world, pension systems are moving towards redesigning the structure of their schemes to increase coverage, raise the retirement age, encourage voluntary savings under a third pillar or liberalize fund allocations to generate better returns on investments. Latin America, in particular, has experienced significant reform of its private pension systems. Mexican pension funds have been successful in generating double-digit returns on their assets by investing in structured securities, equities and foreign exchange, both domestically and internationally. In Peru, steps are being taken to modernize its outdated pension model to make pension funds an important source of investment capital. Besides plans to expand coverage and increase the efficiency of the private pension fund system, regulatory changes will raise the limit on pension funds' overseas investments.

In East Asia, the prospect of rapid population aging within the next 20 to 30 years has been given special attention by multilateral research and development institutions (namely the Asian Development Bank, the World Bank and the OECD) to raise the preparedness of pension systems in the region to meet this demographic challenge. China and South Korea top the list on aging, and a greater understanding of the imperatives that are driving pension reform in these two countries would be useful in preparing other countries in the region for similar challenges in coming decades.

**China** received assistance from the World Bank in conducting a pension reform study in the 1990s, culminating in a 1995 World Bank mission report that called for a unified national system. The World Bank proposed a three-tiered structure comprising a social pooling dimension, a mandatory individual account and a voluntary contribution account. The influence of this report is being reflected in the way the nation's pension policy framework is evolving (Piggot 2007). Today, there are three main types of pension systems in China, covering the urban working population (about 180 million), the civil and public service sector (about 40 million employees) and the rural population (approximately 674 million people by the time universal coverage is achieved).

**The urban resident scheme** is by far the largest and most important scheme in the country. It is a multi-pillar scheme that comprises a defined benefit component (Pillar 1a) financed by employers amounting to 20 per cent of salaries, and a mandatory individual account portion (Pillar 1b), derived from employees' contributions at a rate of 8 per cent of salaries. To supplement the retirement income of employees from the urban scheme, an additional voluntary contribution pillar was introduced in late 2003 as a savings vehicle called the Enterprise Annuity. Employers sponsoring an Enterprise Annuity must make contributions to these accounts, but employees' contributions are optional. Uptake of Enterprise Annuities has remained low because of insufficient tax incentives. Another subset of the urban pension scheme is a voluntary pension plan for non-employed urban residents.

**The rural pension scheme,** introduced in 2009, has expanded rapidly and is modeled along the lines of the urban pension scheme, comprising both a social pool and individual accounts.

**The civil service pension scheme** covers most of the employees of government agencies and related government bodies without contributions required from these workers.

In terms of adequacy, the pension benefits of the three systems differ substantially. Retirement benefits for civil and public service members are on average 1.5 times higher than the retirement income of the urban pension system and this has become a source of discontent among urban workers, who are questioning the fairness and equity of their schemes. The rural pension system that provides a monthly basic benefit of RMB55 (US$8.50) is grossly inadequate by any international standard. The government recognizes that this provision for rural retirement must grow substantially in coming years to reach a satisfactory level.

In terms of sustainability, the rapid increase in the numbers reaching retirement is placing great strain on the urban pension system, especially on the social pool representing contributions of employers. This portion has been pooled together at the local government and is used as a PAYG defined benefit plan. However, most local governments have found that the social pool is insufficient to pay current benefits, including the legacy pensions that were absorbed into the urban scheme in 1997. To overcome this funding problem, local governments have been drawing on individual accounts that rightfully accrue to employees as they have been contributing 8 per cent of their salaries into Pillar 1b. In fact, it was common for funds in individual accounts to be diverted into payments, not only for current retirees but also for other purposes. As a result, estimates of shortfalls in individual accounts are as high as 90 per cent, leading them to be referred to as “empty accounts”.

This current state of the urban pension system has severely eroded public confidence, and any system reform must first and foremost address the underlying issues. To quote Pozen (2013): “You can’t have a good system operating as long as a large amount of the current contribution is being siphoned off to the legacy benefits. If we make the obligation explicit and transfer it out of the local and provincial governments to the central government…”, then the central government would be in a better position to invest contributions to fund future benefits.

Another factor that has affected the adequacy and sustainability of pension schemes is low returns earned on pension fund investments. Given the restrictions on funds investing overseas, investment options available to pension funds are limited to low-yielding Chinese government bonds, low interest rate bank deposits or high-risk equities.

China’s pension system has to change to overcome the problems arising from rapid population aging, urbanization, fragmentation of the system, unfunded schemes and low returns on investment. As the saying goes, China’s population is aging faster than it is becoming rich enough to support after retirement. The return on investment on its pension assets is also not sufficient to meet future needs. In particular, a Director of China’s Academy of Social Sciences has added that China needs to raise the professionalism in the management of its social security fund and revamp the investment management system. In response to these pressures on the central government to accelerate the pace of pension reform, there have been reports within China indicating that the regulatory bodies, including the Ministry of Human Resources and Social Security, were in the process of drafting various reforms that included relaxing the one-child policy for the urban population nationwide and to progressively increase the retirement

age. While details have yet to be made known, local and international pension experts, such as Stuart Leckie and Robert Pozen, are suggesting that reforms cover the following areas:

i) Centralize the fragmented pension system for greater efficiency and professionalism in management, including moving pension administration out of local governments.

ii) Integrate and harmonize the design and structure of eligibility rules and benefit levels for urban and rural pensions. This will facilitate higher coverage by making the rural pension system mandatory and by extending coverage to the migrant labor population, which is on the rise because of urbanization.

iii) Progressively remove the unfunded or PAYG component, and move into a defined contribution system where contributions are shared by the employer and the employee.

iv) Modify the one-child policy, and slow down the decline in the working population by raising the retirement age to 60 for both men and women.

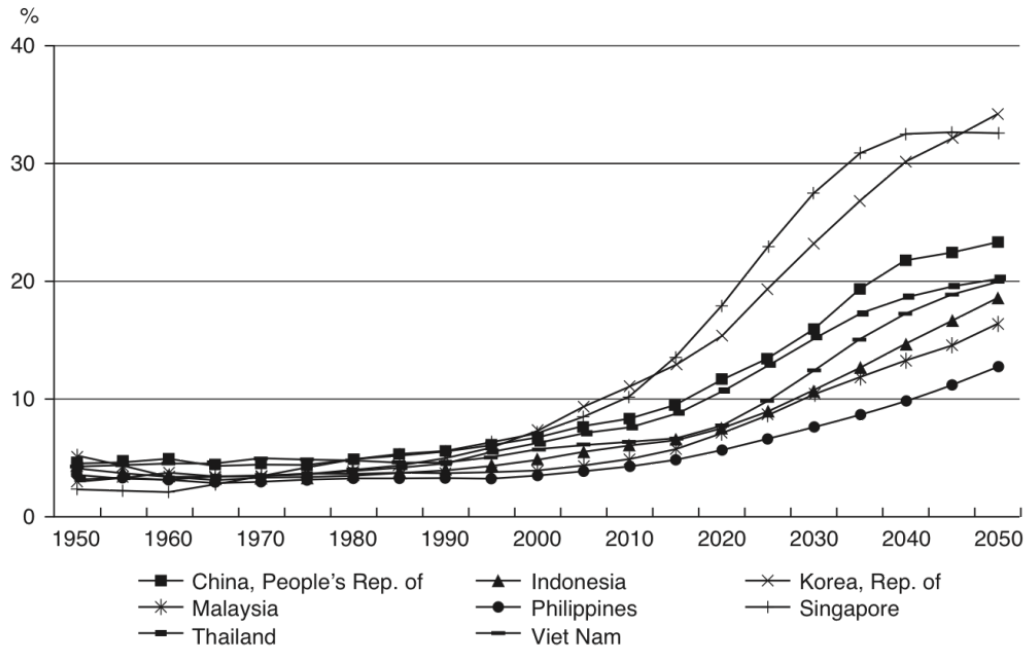
v) Develop long-term investment vehicles to diversify pension funds' investment portfolios. Combined assets of Pillars 1a and 1b of the urban pension system alone had grown from RMB6.8 billion in 1989 to RMB2.4 trillion (US$380 billion) by the end of 2012. The total accumulated balance is projected to rise to RMB4.5 to 6 trillion in 2020, and RMB10 to 11 trillion by 2030. With resources of this magnitude, the National Social Security Fund (NSSF), established in 2000 as a quasi-pension and quasi-sovereign fund to act as a "fund of last resort" to meet future pension liabilities, should be entrusted with investing pension assets and paving the way for linking pension development to the deepening of China's capital markets.

vi) Address the adequacy challenge by using tax incentives to promote additional savings through the Enterprise Annuities program.

vii) Establish a China Pension Regulatory Commission as a new regulator specifically for the pension sector, with full responsibility for pension design and financing in China.

**South Korea** can also offer lessons on how its national pension system has undergone several rounds of reform since its establishment in 1988 to deal with the issue of long-term financial sustainability of a system that not only covered its entire workforce in urban and rural areas, but also started off with an ambitious high earnings replacement rate of 70 per cent (Kim 2012). Sustainability became a challenge because its high percentage of population aged 65 and above clearly made it the most rapidly aging country in East Asia and in the world, outstripping Singapore until 2040 (see Figure 7).

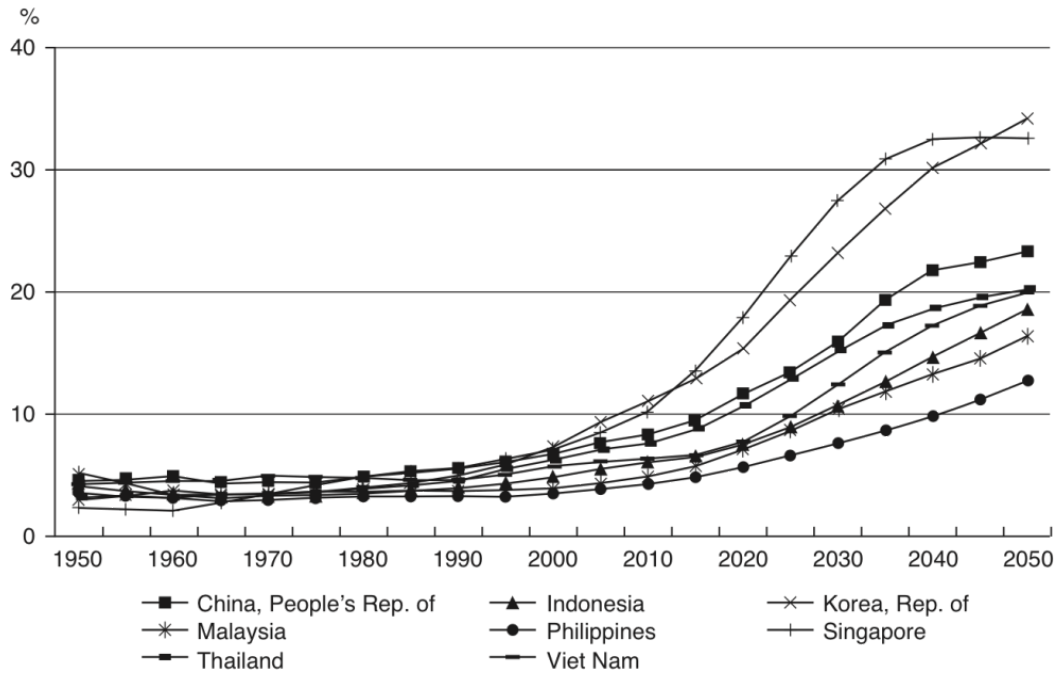
**Figure 7: Ratio of Population Aged 65 and Over to Total Population**




Source: ADB, Pension Systems and Old Age Income Support.

South Korea's elderly dependency ratio, which was 12.6 per cent in 2005, is projected to increase to above 60 per cent by 2050 (see Figure 8). Hence, the earnings replacement rate will have to be progressively reduced from 70 per cent to 60 per cent, reaching 40 per cent by 2028, accompanied by a gradual increase in the pensionable age from 60 in 2013 to 65 in 2033. Experiments to supplement the national pension and three other public occupational schemes with private pensions in the form of lump sum severance payments have not been particularly successful in improving old age income security.

**Figure 8: Elderly Dependency Ratio, 1950-2050**




Source: ADB, Pension Systems and Old Age Income Support.

Options open to South Korea are to restructure its public pension schemes by focusing on the issue of financing the costs, securing adequacy of benefits and seeking consensus between several interest groups, including the elderly, trade unions, employer groups, political parties and academia. In its quest to obtain more financial resources to fund its pension system, it has been reported that the National Pension Scheme (NPS) has embarked upon a phase of significant expansion in its overseas investments with the goal of achieving both diversification and growth of its international portfolio. To take advantage of the global economic downturn after the global financial crisis, the overseas investments of NPS have been focused on equities and real estate in order to produce better returns.

**Singapore and Hong Kong** both have small populations that are rapidly aging because of increased life expectancies and low birth rates. Both have a large central defined contribution scheme (the Central Provident Fund (CPF) in Singapore and the Mandatory Provident Fund (MPF) in Hong Kong), which can be considered to be successful in terms of achieving coverage, adequacy and sustainability. The calls for reform are primarily for enhancement of various aspects of the schemes. In the case of Hong Kong's MPF, there have been suggestions to enhance the accumulation of funds to include higher mandatory contributions, tax incentives for voluntary contributions, simplified administrative procedures and lower fees to reduce costs. On the withdrawal of funds, recommendations include the review of the lump sum payment policy and greater flexibility in retirement arrangements. Other recommendations were of a general nature relating to improvement of investor education and communication, and rationalization of regulatory regimes.

In the case of Singapore's CPF, any reform that takes place will be to address concerns of adequacy becoming more acute as the population ages, and whether exclusive reliance on

mandatory CPF savings should be supported by other forms of social security. The call by pension experts (Asher and Bali 2012) to improve fairness in the design of the CPF is not alluding to the lack of institutional or organizational capacity, but rather to the need for better balancing high economic growth and social protection.

**Malaysia** has a diversified pension system comprising different schemes to cover different sectors of the working population, including the civil service, armed forces and private sector. The scheme for civil servants, which accounts for about 11 per cent of the working population, is a defined benefit scheme fully financed by the government without any contribution by the employee. The monthly benefit levels vary between 20 and 60 per cent of the last drawn salary with periodic upward revisions. There is also a provision for survivor benefits, which pays surviving spouses and dependent children a percentage of the deceased employees' final salary. These features, combined with increasing longevity, are raising concerns about the financial sustainability of the civil service pension scheme. The armed forces fund is a defined contribution scheme with an accumulated balance of RM 7.2 billion, or about 1 per cent of GDP in 2008, and is generally regarded as having fewer adequacy and sustainability challenges.

The Employees Provident Fund (EPF), which covers 5 million active members from the private sector (equivalent to 50 per cent of the working population as of 2012), is by far the oldest and one of the largest pension schemes in the region. As of December 2012, its assets amounted to US$173 billion, or 56.8 per cent of GDP. Mukul Asher has provided one of the most up-to-date and detailed analyses of the EPF with recommendations for enhancement of the scheme (Asher 2012). Compared with some of the other pension schemes in emerging Asian economies, the EPF has massive and growing contributions, and its financial sustainability is being supported by a relatively youthful working population and steady economic growth in the country. However, adequacy is an issue. As a defined contribution scheme with lump sum withdrawal payments upon retirement, previously at 55 and now revised to 60, the EPF is not designed to address longevity, inflation and investment risks. The prolonged period of low interest rates is also not helping to boost the earnings replacement rate of EPF retirees. In preparing for an aging population in the next 20 years, policymakers and the EPF should use this time to consider reforms. Asher suggests four main directions:

1. Promote an integrated pension system to facilitate risk management by beneficiaries at various stages of the lifecycle, ensuring the system is professionally managed with a high level of transparency, accountability and trust. One way to do this is to create a link between formal pension schemes, particularly the EPF, and the existing social pension scheme for the destitute above 60 years of age to achieve better replacement rates by enabling retirees in need of old age support to draw on various sources of pension income (e.g., EPF annuities and social pensions).

2. Reduce the over-concentration of pension assets managed by the EPF. Although the EPF has been allowed to invest up to 20 per cent of its assets overseas, the amount of EPF assets invested in the domestic stock exchange is large enough to influence stock prices. One way to do this is to place a wage ceiling[4] for mandatory contributions to the EPF. This will automatically reduce the growth of EPF assets. At the same time, it will

[4] The level of ceiling can be established relative to a median wage (e.g. three times the median wage) in real terms after an empirical analysis of the wage patterns and the impact of different levels of ceiling on the accumulation of EPF assets over time.

facilitate the establishment of private pension plans by corporations and other institutions that can better meet the risk-return preferences of its members.

3. Address the long-term financial sustainability of the civil service pension scheme. One option is to move this defined benefit scheme into a defined contribution scheme, or better yet, integrate a reformed DC civil service scheme into an EPF scheme that has a wage ceiling. The government can then add on a supplementary pension scheme, if necessary, that achieves a better degree of fairness between the civil service and private sector pension benefits.

4. Address rising long term healthcare needs as the population ages, and examine whether healthcare financing can be integrated with pension financing in a structured way.

**The Philippines** has mandatory defined benefit pension schemes covering about 80 per cent of the labor force that began with the Government Service Insurance System (GSIS) for public sector employees in 1937, followed by the Social Security System (SSS) for private sector employees in 1954 and the Retirement Service Benefit System (RSBS) for the armed forces in 1973. Complementing the mandatory defined benefit schemes is a defined contribution program (PAG-IBIG) that requires employees of the GSIS and the SSS with monthly earnings of at least P4,000 to contribute 2 per cent of their salaries (with matching contributions by the employer) towards an accumulated savings fund withdrawable at age 65, completion of 20 years of active membership, health circumstances or migration. Approved in 2008, Personal Employee Retirement Accounts (PERA) is a voluntary program that offers tax credits to employees and employers to encourage workers to invest savings in approved products that are managed by accredited financial institutions, including banks, mutual funds and insurance companies.

A striking feature of the major mandatory defined benefit pension arrangements in the Philippines is not so much the issue of adequacy, but that of sustainability that has been brought about partly by the unusually high earnings replacement rates that more than double best practice norms of 40-50 per cent. Administrative decisions to grant increases in benefits that were not commensurate with contributions were also raising concerns over sustainability as reflected in a World Bank report in 1999, which showed negative flows for the SSS in 2008 and the GSIS in 2025. This prompted the adoption of administrative reforms that have extended the life of the funds. However, if structural reforms are not undertaken, funds in both the SSS and the GSIS would be depleted by 2031 and 2055, respectively. The direction of reform is to look at ways to prevent the financial deterioration of existing pension systems and ensure their fiscal soundness (Reyes 2012). Amongst the options is to progressively minimize the defined benefit component by shifting to defined contribution systems, a trend that is seen in many countries.

**In Thailand**, the pension system comprises various retirement programs that are targeted at either the formal sector or the large informal sector. The main issues are summarized as follows (Brustad 2012):

- Adequate benefits for long service government staff, who comprise 3 per cent of the workforce benefiting from an average replacement rate of 70 per cent from the Government Pension Fund (GPF);

- Some, but inadequate, benefits for private sector formal workers, who comprise 34 per cent of the workforce contributing toward the Old Age Pension; and

- Seriously inadequate benefits for informal sector workers, who comprise 63 per cent of the workforce.

Widespread inadequacy of pension benefits will become more critical as Thailand's population ages.

The GPF, originally a defined benefit scheme prior to 1997, is currently a budget-financed defined benefit pension complemented by a defined contribution component. As of September 2008, the GPF had 1.2 million members and assets of B391,717 million, currently making it Thailand's largest institutional investor. According to investment policy rules set by the Finance Ministry, more than 60 per cent of the investments must be in low risk assets and less than 40 per cent in higher risk assets.

The Old Age Pension (OAP), sometimes referred to as a social security program for the private sector, is a mandatory scheme requiring contributions from all formal sector employees of businesses that employ one or more people. As at the end of 2007, the OAP had 9.2 million members and an accumulated reserve fund of B407,931 million. Established in 1999, the OAP will commence paying pensions in 2014. Current investment guidelines for allocation of the OAP fund are as follows: 24 per cent in state enterprises/commercial banks, 37.2 per cent in government bonds, 10.7 per cent in state enterprise bonds and 6.7 per cent in equity.

Voluntary provident funds are also encouraged to increase private sector employees' savings. These have not been widely implemented despite being given tax incentives. A mandatory provident fund to cover all formal sector workers has also been examined, but has yet to be actively considered by the government.

In the informal sector, there is an Old Age Allowance program that provides the underprivileged elderly with a B500 month relief allowance that is administered by local authorities. A voluntary National Savings Fund has also been introduced nationwide to cover 24 million workers who lack formal long-term retirement savings.

In his assessment of the direction of pension reform in Thailand, Brustad focuses on gradual reform of the formal sector OAP pension scheme:

- Increase benefits of the OAP by improving the replacement ratio for lower paid workers, currently averaging 15 per cent.
- Introduce a mandatory provident fund to enhance the retirement savings of employees in the formal private sector.
- Introduce tax incentives to promote voluntary provident funds.
- Raise contribution levels and/or retirement ages.

Over and above these changes to the OAP, there should be improved pension portability to facilitate change of jobs, including between the government and the formal private sector. Establishing an integrated and independent pension regulator would help to coordinate the various pension schemes, instead of current arrangements of having the Labor Ministry and the Finance Ministry separately exercising their authority.

**Indonesia** has a fragmented pension system that covers only a fraction of the working population extending across different sub-sectors of the public and private sectors.

- In the public sector, the pension system comprises a program for civil servants in central and local governments, and a separate similar program for armed forces. One hundred per cent of civil servants and military personnel are covered by these two programs.

- Formal private sector schemes comprise employer pension funds (including those of state-owned enterprises), financial institution pension funds and the publicly sponsored private sector Jamsostek Program that has grown to become the largest pension fund in the country.

In 2004, Indonesia enacted a National Social Security Law to provide a basic framework for a comprehensive national social security and social assistance system that covers five major policy areas: health insurance, employment injury, old-age, pensions and death benefits. In the area of private pension funds, the legislation aimed to address the disparities in coverage among the various pension schemes, and reduce future dependency ratios by making it mandatory for every person to join the National Social Security (NSS) program. The NSS program did not take off until another Law on Social Security Administrative Bodies was enacted in 2011 to establish two separate bodies: one to take charge of administering the health program of the NSS, and the other to take care of the various NSS employment programs. Much work lies ahead for both of these bodies to make the transition from the existing segmented schemes to a centrally managed system. Implementation of the health program is targeted for January 2014, to be followed later by employment programs in July 2015. Successful reform of the pension system under the NSS program is a key driver of future accumulation of funds for investment in the domestic economy (Muliati, 2013).

**India** currently ranks lowest among the large Asian countries in terms of coverage and size of pension assets in relation to GDP. This situation makes pension reform one of the most difficult challenges for an economy where 80 per cent of jobs are in the informal sector. Since 1947, India has developed a complex pension system that reflects ad hoc attempts over the years to combine defined benefit schemes with a defined contribution component. Basically, there are four main types of schemes within the Indian pension structure:

1. The New Pension Scheme (NPS) for civil servants represented a landmark move in January 2004 to make it compulsory for new recruits at the central and state levels to participate in a defined contribution scheme. This DC scheme runs concurrently with the traditional defined benefit scheme for employees in service prior to the launch of the NPS.

2. The Employees Provident Fund (EPF) and the Employees Pension Scheme (EPS) for private sector employees, both administered by the Employees Provident Fund Organization. The EPF is a defined contribution scheme, whereas the EPS is a defined benefit scheme.

3. Various occupational retirement schemes established by financial organizations in the banking and insurance industries and those of state-owned enterprises.

4. Voluntary savings schemes administered by India's Post Office Savings Bank that come with tax advantages.

Many writers have argued for pension reform in India because of the fragmented nature of the existing system and the distortive effect that disparities between public and private pension schemes and tax advantages have on the labor market. Apart from reforms to address low

coverage rates, a major challenge is to ensure that any new pension system is socially inclusive of the majority of the labor force in the informal sector.

**In Vietnam**, the pension system is a component of the nation's social protection program placed under the social insurance pillar that has been in operation since 1961. It began as a non-contributory defined benefit scheme covering only state sector employees. Since 1995, the scheme became a contributory scheme and was expanded to cover the private sector on a voluntary basis, while remaining mandatory for state workers and contractual workers for the state. The coverage of the scheme remains low because it is inherently limited to state sector workers and there are few participants in the voluntary program. Although the average replacement rate is high, at 72 per cent in 2008, the average pension benefit in absolute terms is even lower than the GDP per capita of US$85 per month, pointing to the inadequacy of retirement income. An aging population also makes a pay-as-you-go defined benefit (PAYG-DB) scheme not sustainable. Up to 2008, the pension fund accumulated D91,522 (or US$4.77 billion) to rank as one of the two largest investment funds in Vietnam. Investments of these funds were largely concentrated domestically in state-owned commercial banks and government bonds, thus yielding low returns.

A suitable direction for pension reform in Vietnam is to shift from the PAYG-DB system to a funded type scheme with individual accounts (Gian 2012). Under the PAYG scheme, current employee contributions are used to pay the retirement benefits of current retirees, which has implications on inter-generational inequities. A funded-type scheme encourages long term private savings and during the period of fund accumulation, savings can be invested in domestic financial markets and contribute to the country's development.

**Summary of Direction of Pension Reform:**

There is a strong desire by Asian countries to strengthen their pension systems to prepare for population aging trends within the next 20 years. Current pension systems in Asia face the problem of adequacy of retirement incomes for four reasons:

- Coverage of formal private sector pension systems is relatively low.
- Early withdrawal of savings for various approved reasons has led to dilution of the balance for retirement.
- Pension savings are often taken as a lump sum with the risk of people outliving their resources.
- Pension payments are not automatically adjusted to reflect changes in the cost of living.

In response to these concerns of adequacy and sustainability, individual countries are coming up with their own set of options to reform their pension systems. However, the various country approaches share some common themes in that they:

- Address the long term fiscal sustainability and equity aspect of non-contributory defined benefit pension systems for civil service workers in the public sector. Consider moving public sector defined benefit schemes into defined contribution schemes and unifying them with private sector pension systems.

- Address the problem of longevity and rising dependency ratios by widening coverage, increasing contribution rates and raising the retirement age, making it the same for both men and women.

- Introduce voluntary savings programs with tax incentives to supplement mandatory pension schemes. Ensure that these are regulated and the financial resources are professionally managed to yield reasonably higher returns.

- Address the challenge of the underfunding of pension benefits in an environment of low interest rates and sluggish economic growth by reviewing investment strategies and liberalizing asset allocation policies.

- For social inclusiveness, develop savings and other social security programs for the informal sector, which constitute a major segment of the labor force.

These reforms will take time to evolve in each country, especially policies that are geared towards eventually replacing defined benefit schemes with funded defined contribution systems. As the OECD experience has shown, the design of defined contribution schemes will also be complex because it needs to satisfy the underlying principles of coherence, adequacy and efficiency (OECD 2012b).

## III. Linking Pension Reform to the Future of Finance in Asia

Apart from rebalancing the structure of benefits of pension systems in Asian emerging economies, there is another important dimension of pension reform that should be given more prominence, namely developing mechanisms to mobilize the sizeable accumulated pension savings to support macroeconomic growth and financial market deepening in the region. Subject to further refinement of country statistics on pension fund assets, which tend to differ quite substantially between different sources because of different definitions, Table 3 provides an overview of pension asset estimates in selected Asian countries in comparison with developed countries. The nine Asian countries that have fairly developed pension systems had an estimated combined total of US$663 billion (or 5.3 per cent of 2011 GDP) in private pension assets.

The size of these assets will be growing in coming years indicating the potential of pension funds to become leading institutional investors as is the case in global financial markets. Among the East Asian countries, only Singapore and Malaysia have pension assets-to-GDP ratios that are currently above 50 per cent, which are closer to developed country norms. The other high population countries like China, Indonesia, the Philippines and Thailand have a long way to go to catch up. However, if their pension reform measures can contribute to lifting the size of their pension assets to match the size of their economies, the amount of investible funds coming into the financial markets would be substantial.

**Table 3. Size of Pension Fund Assets in Relation to GDP, 2011**

| Country | GDP 2011 (US$bn) | Pension Assets 2011 (US$bn) | Pension Assets to GDP ratio (%) |
|---|---|---|---|
| China | 7,321.9 | 41 | 0.6 |
| Hong Kong | 248.7 | 80 | 32.2 |
| India | 1,872.8 | 3 | 0.2 |
| Indonesia | 846.3 | 15 | 1.8 |
| South Korea | 1,114.5 | 196 | 17.6 |
| Malaysia | 287.9 | 145 | 50.3 |
| The Philippines | 224.8 | 18 | 8.0 |
| Singapore | 245.0 | 145 | 59.2 |
| Thailand | 345.7 | 20 | 5.8 |
| **Total Selected Asia** | **12,507.6** | **663** | **5.3** |
| | | | |
| **Total OECD** | **43,525** | **30,497** | **70.0** |
| *Of which:* | | | |
| *Australia* | *1,834.1* | *1,377* | *99.5* |
| *Japan* | *4,383* | *1,470* | *33.5* |
| *United States* | *14,991* | *17,578* | *117.2* |
| *United Kingdom* | *2,236* | *3,071* | *137.3* |

Source: OECD, The CityUK estimates.

Assuming the GDP of emerging Asian economies could reach US$29 trillion by 2030 (Sheng 2013), matched by a 30 per cent pension asset to GDP ratio, the region could have US$9 trillion in pension assets by 2030 (see Table 4).

**Table 4. Projected Pension Assets in a Gradual Growth Scenario to 2030**

| IMF Classification in World Economic Outlook | GDP (US$ trillion) | | | Pension Asset Estimates (US$ trillion) | | |
|---|---|---|---|---|---|---|
| | 2010 | 2020* | 2030* | 2010 @5% of GDP | 2020 @15% of GDP | 2030 @30% of GDP |
| **Emerging Market Economies (EMEs)** | 23.5 | 30.1 | 45.5 | 1.2 | 4.5 | 13.7 |
| **Of which: Emerging Asia** | 11.4 | 17.0 | 28.8 | 0.6 | 2.6 | 8.6 |

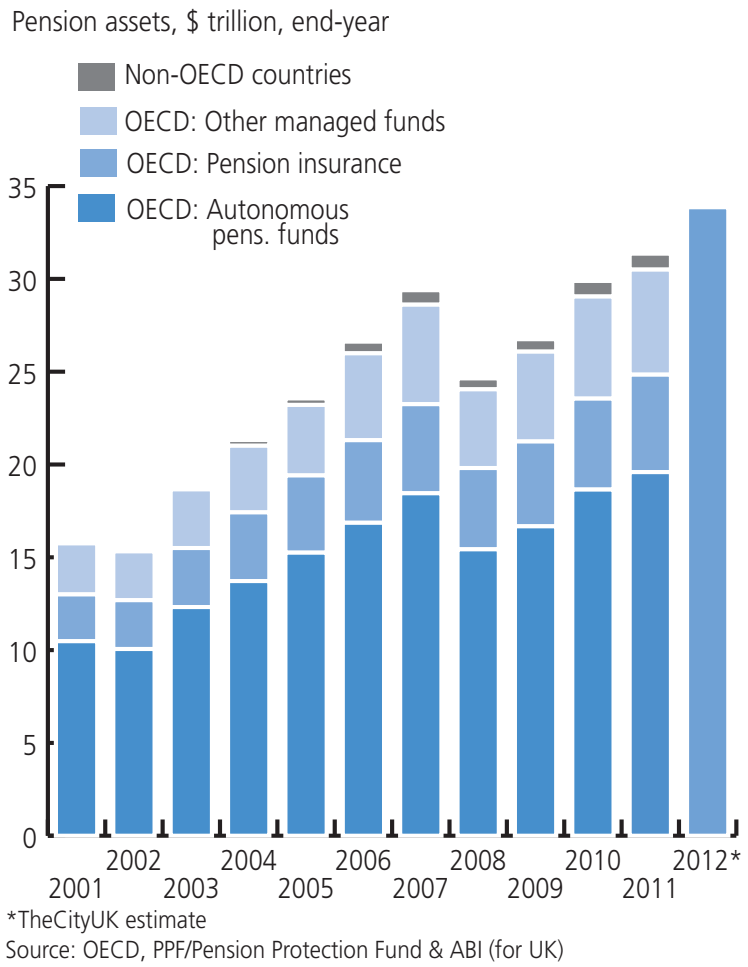
*Estimates by Sheng (2013).

**International Pension Markets**

Pension funds and insurance companies have been central to the development of capital markets in the United States and the United Kingdom. In both of these countries, institutional investors were historically less restricted by regulations and therefore became the driving force for the establishment of liquid and sophisticated equity and corporate bond markets. In most of continental Europe, where pension systems were dominated by extensive PAYG schemes, the accumulation of pension assets was not as significant as in the U.S. and the UK. Hence, Europe's financial system remained bank-dominated and that curbed the development of the capital markets. Now that countries in Europe are moving away from their PAYG pension systems to defined contribution schemes, the resultant growth in pension assets, together with relaxation in regulations, are facilitating the expansion of equity and bond markets. The different approaches to pension system development are reflected in the uneven size of pension funds among developed countries.

According to estimates by TheCityUK, global pension assets rose further by 8 per cent to US$33.9 trillion by the end of 2012 from US$31.4 trillion at the end of 2011 (TheCityUK 2013). Compared with the level a decade ago, the value of pension assets has doubled from US$15 trillion in 2001 (see Figure 9).

**Figure 9: Global Pension Assets Growth**



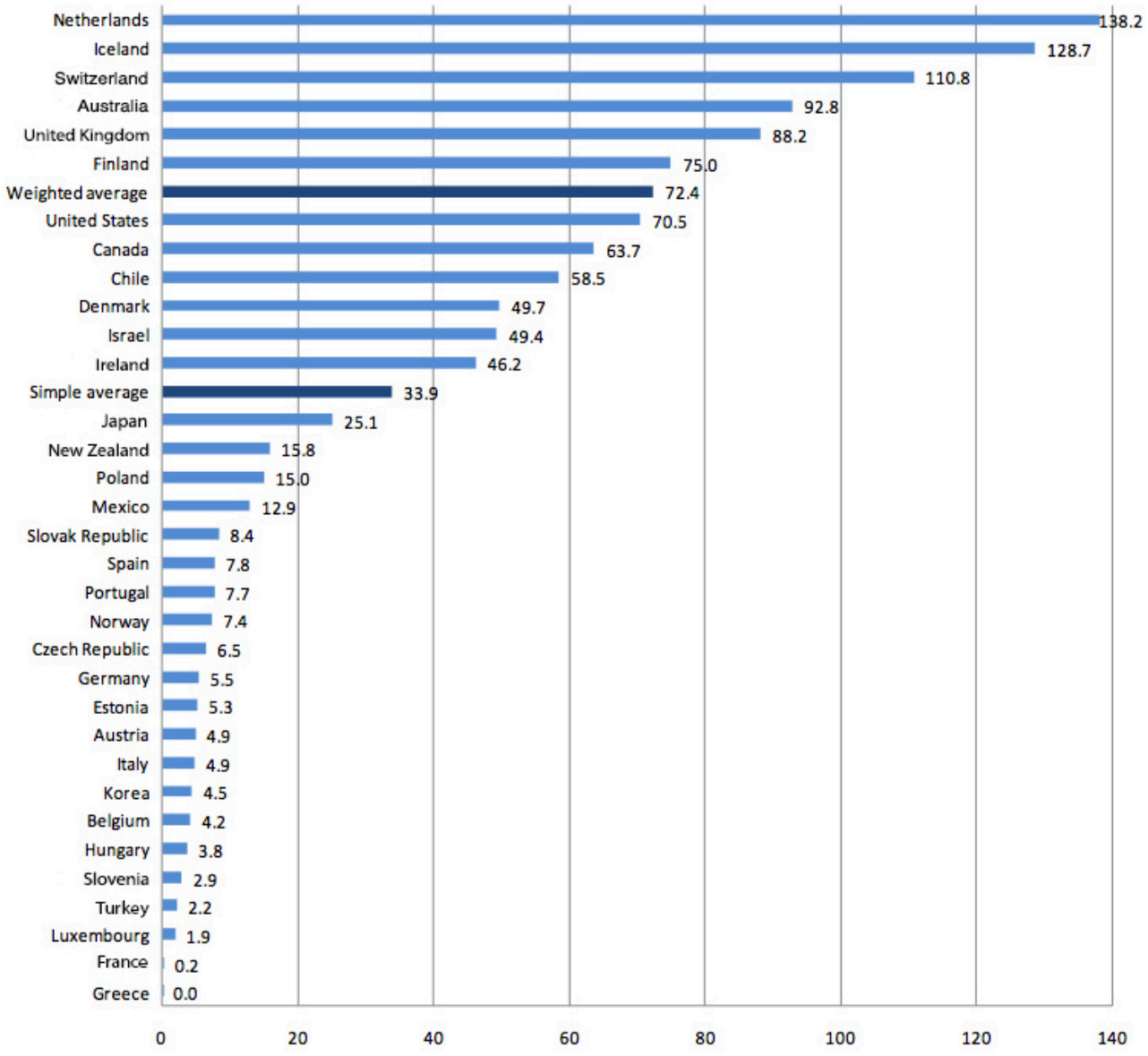

Source: TheCityUK, Pension Markets March 2013, Financial Market Series.

These global pension assets primarily refer to autonomous pension funds, but also cover book reserves, pension insurance contracts, company-managed funds, bank-managed funds and other pension funds. The United States accounts for 56 per cent of global pension assets, followed by the United Kingdom, Canada, Japan and Australia accounting for a combined share of 25 per cent, OECD Europe with a 12 per cent share, other OECD countries with 4.3 per cent and non-OECD nations amounting to 2.7 per cent.

Countries with well established pension systems also have well developed financial and capital markets. A common measure of the importance of private pension systems is to look at the market value of assets relative to the size of the economy (or the pension assets-to-GDP ratio). The OECD weighted assets-to-GDP ratio for pension funds had increased from 67.3 per cent in 2001 to 72.4 per cent in 2011, with only three countries having achieved ratios exceeding 100 per cent: the Netherlands (138 per cent), Iceland (129 per cent) and Switzerland (111 per cent). Only three other countries exceeded the OECD weighted average assets-to-GDP ratio of 72.4 per cent, namely Australia, the United Kingdom and Finland. The United States, despite having the largest share of global pension funds, has an asset-GDP ratio of 70.5 per cent that falls

below the OECD weighted average. Japan trails with a ratio of 25.1 per cent. A pension asset-to-GDP ratio of 20 per cent is considered as the minimum for meeting the OECD's definition of a mature pension funds market, and 40 per cent of OECD countries fall below this minimum (see Figure 10).

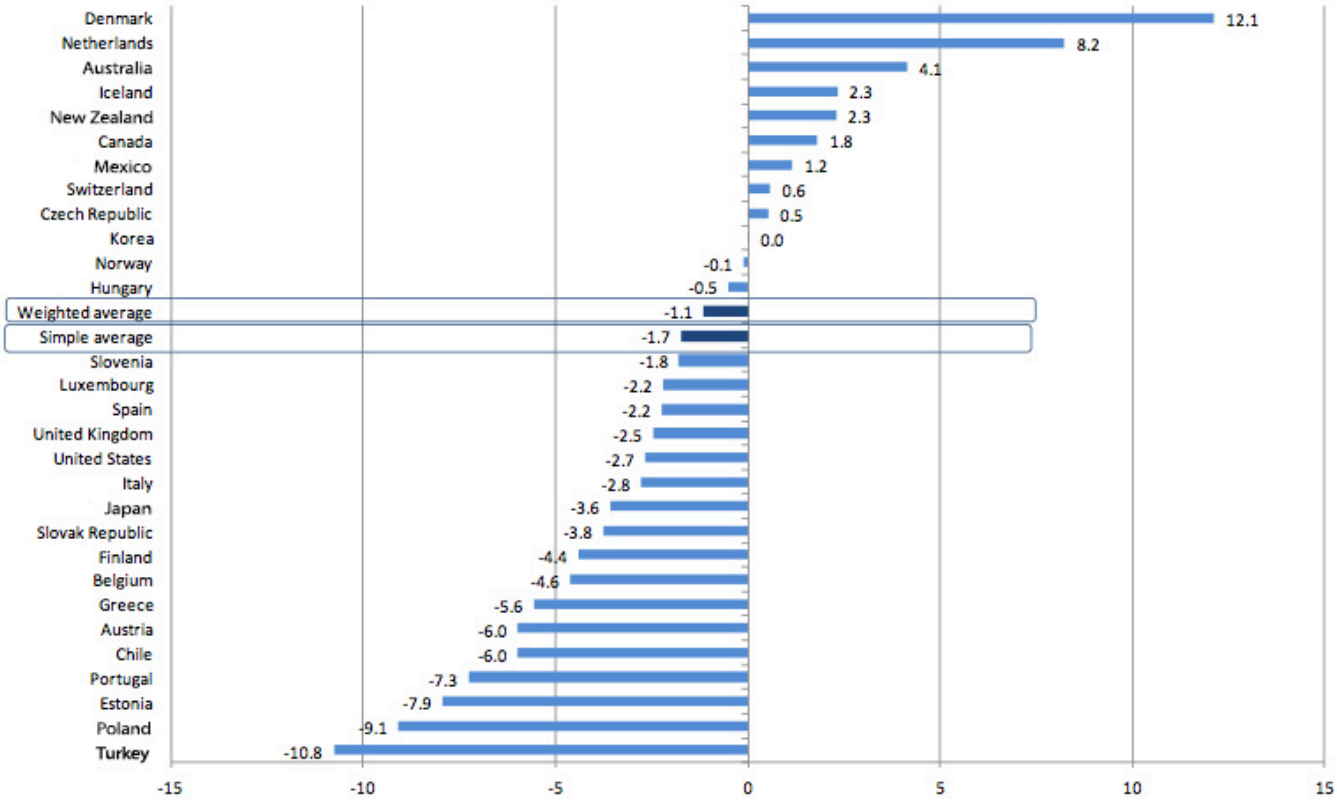
**Figure 10: Private Pension Assets-to-GDP Ratio in OECD Countries, 2011**




Source: OECD, Pension Markets in Focus, September 2012.

In the OECD, most of the pension funds are invested in bonds and equities. The high exposure to equities, at the height of the global financial crisis in 2008, had resulted in a steep decline in returns on pension funds. Despite the subsequent recovery of stock markets in 2009 to 2010, renewed uncertainty in the world economy in 2011 once again subjected a majority of OECD pension funds to experiencing negative returns on their investments that ranged from - 0.1 per cent for Norway to -10.8 per cent for Turkey. In real terms, even Japan, the United Kingdom and the United States had negative net investment returns of -3.6 per cent, -2.5 per cent and -2.7 per cent in 2011, respectively. Among the countries that maintained higher returns in 2011 were Denmark (12.1 per cent attributed mainly to gains on bond investments and interest hedging operations), the Netherlands (8.2 per cent) and Australia (4.1 per cent) as shown in Figure 11.

**Figure 11: Pension Funds Real Net Investment Rate of Return (Year Ended December 2011)**




Source: OECD Pension Markets in Focus Sep 2012.

### Investment Trends of Large Global Pension Funds

In 2011, the main institutional investors in the OECD (pension funds, insurance companies and mutual funds) held over US$71 trillion in assets. Traditionally, these investors serve as sources of long-term capital because of the long-term nature of their liabilities with investment portfolios mainly concentrated in bonds and equities. However, in recent years, the pressure on these pension funds to generate higher investment returns in the face of a repressed interest rate environment and volatility in equity markets are driving them to alternative investments, such as

private equity, real estate, commodities and infrastructure. The first-ever OECD Annual Survey of Large Pension Funds 2011, published in September 2012 (OECD 2012a), confirmed that large pension funds' (LPFs) asset allocation policies differ significantly across countries with the main influencing factors being country specific regulations, plan type (DB or DC), and liability considerations for DB plans and default investment allocation in DC plans. The average LPF portfolio comprises 44 per cent of total assets in fixed income, 37 per cent in equity, 6 per cent in cash and 16 per cent in alternative investments.

Although the majority of the funds surveyed stated that they were actively investing in infrastructure as a separate asset class (up to 20 per cent of their total portfolios), these allocations were not comparable as they relate to different forms of infrastructure investments, such as unlisted equity (i.e., infrastructure funds or direct investment) and fixed income (infrastructure project bonds or loans). There is also a growing trend among pension fund investors in aging developed markets to allocate some of their assets to more youthful emerging markets, capturing the benefits of higher economic growth. The OECD 2011 survey of LPFs observed that the highest returns in 2010 were recorded by funds exposed to emerging markets equity, as reflected in the double digit returns that accrued to LPFs in Latin America (Peru, Colombia and Chile) as shown in Table 5.

**Table 5. Annual Investment Rate of Return in Selected LPFs**

| Country | Name of the fund | Investment rate of return 2010 | |
|---|---|---|---|
| | | Nominal | Real |
| Perú | AFP Horizonte - Perú | 19.4 | 17.6 |
| Colombia | AFP Horizonte - Colombia | 18.8 | 16.2 |
| Canada | OTPP | 14.3 | 12.3 |
| Netherlands | ABP | 13.5 | 12.1 |
| Netherlands | PFZW | 12.6 | 11.2 |
| Mexico | Afore Bancomer - Mexico | 12.6 | 8.1 |
| Brasil | PREVI | 12.4 | 7.0 |
| South Africa | GEPF | 12.2 | 7.8 |
| Chile | AFP Provida - Chile | 12.0 | 10.5 |
| UK | USS | 11.7 | 8.1 |
| Netherlands | PMT | 11.6 | 10.2 |
| Canada | OMERS | 11.4 | 9.4 |
| Australia | Sunsuper | 11.0 | 7.9 |
| Denmark | PFA | 8.0 | 5.6 |
| Australia | AustralianSuper | 6.1 | 3.2 |
| Australia | UniSuper | 5.1 | 2.2 |
| Portugal | Banco BPI | 3.1 | 1.7 |
| Italy | FONCHIM | 2.4 | 0.9 |
| Italy | COMETA | 2.1 | 0.5 |
| Spain | CAJA MADRID | 1.7 | -0.1 |
| Spain | Fonditel | 0.5 | -1.3 |
| Spain | Endesa | 0.3 | -1.5 |
| ***Simple average*** | | ***9.2*** | ***6.8*** |

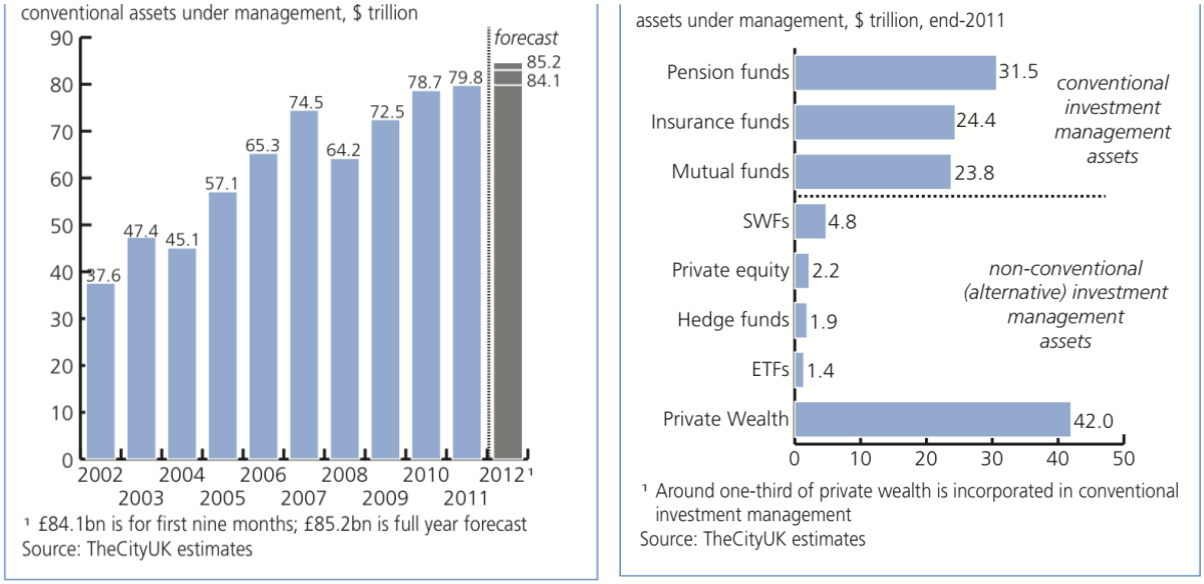
Source: OECD, Annual Survey of Large Pension Funds 2011, September 2012.

The growing interest of developed pension funds to invest in alternative assets and in emerging equity markets that have strong growth potential is suggesting that emerging market economies

are on the cusp of a global financial rebalancing trend that is moving in their favor. For emerging economies to take advantage of this phenomenon, regulators and policymakers will have to develop their financial markets and improve their competitiveness in order to capture these inflows of long term capital. A second, and equally important, suggestion that is coming out of these investment flows is that if developed pension funds are finding emerging markets attractive, pension funds of the emerging economies should also be looking inward for investment opportunities instead of diversifying their portfolios abroad.

Pension funds that are still small in non-OECD developing countries have the greatest potential to grow faster than those of OECD countries. The size of pension assets currently stands at 5.3 per cent of GDP for nine Asian emerging economies for which data is available. In light of the pension reforms that are underway in these countries, pension assets can be expected to grow as coverage and defined contribution plans move forward. If by 2030, pension assets in emerging Asian economies can at least gain maturity and reach the OECD threshold of 30 per cent of GDP, there could be an estimated US$9 trillion of funds to be mobilized for long-term investment in domestic capital markets and the real sector, including real estate, infrastructure, green technology and SMEs. In fact, if the asset portfolio of the global fund management industry is any guide, pension assets account for the highest share of total conventional assets under management (nearly 40 per cent in 2011), with the balance of 60 per cent split almost equally between insurance and mutual funds.

**Figure 12: Global Fund Management Industry**




Source: TheCityUK, Fund Management, Financial Market Series, November 2012, London.

Against this backdrop, regulators and policymakers should place importance on transforming Asian pension funds to becoming leading institutional investors in Asia's future financial architecture, and major catalysts for economic growth and employment in the region.

**An Appreciation of the Challenges Ahead for Pension Funds**

Emerging market economies will be growing faster and saving more than developed economies for the next 10 to 15 years before population aging and lengthening of the years in retirement change the economics and the costs of providing income security for the aged and for future generations. Within this time period, policy action will have to be taken across several fronts to prepare Asian pension funds for their dual role as protectors of social security and drivers of the deepening of capital markets in Asia.

To realize their potential as institutional investors, pension funds in Asia will require policy initiatives to overcome challenges across five major fronts, including: maximizing the coverage and the funded component of their pension systems; deepening capital markets; providing regulatory support for pension system reform; raising the professionalism of the pension fund management industry; and improving data availability and transparency.

First, ongoing and new initiatives to strengthen the defined contribution component of pension systems will have to be pursued within a tight timeframe. Wider coverage of urban and rural sectors and the self-employed, voluntary private savings through what is commonly referred to as the “third pillar” of pension systems and postponement of the retirement age are among the measures that would contribute to higher accumulation of pension funds for mobilization within the domestic financial system.

Second, emerging Asian countries will have to deepen their capital markets to provide long-term institutional investors like pension funds and insurance companies an array of investment options to ensure higher returns. Pension funds are now diversifying into alternative assets like real estate and infrastructure, and if this is in the form of REITs (real estate investment trusts) and infrastructure bonds, capital markets in Asian countries must be able to ensure the liquidity of these new assets.

Third, pension reform requires proactive regulatory support in the form of tax incentives for voluntary savings schemes and liberal asset allocation policies that are currently quite conservative, as reflected in large portfolios of government bonds and cash deposits, caps on equities and limited proportions, if allowed, for investments overseas. By liberalizing asset allocation guidelines, long-term pension funds can be matched to the long-term funding needs of the real sector, such as infrastructure, housing, health, education, food production and other socially inclusive development projects that involve SMEs and the rural sector. Ensuring good governance in pension asset management is also important. Regulation should be primed towards ensuring alignment between investment strategies and risk management practices to protect the long-term interests of beneficiaries.

Fourth, raise the level of professionalism and administrative expertise and efficiency in pension fund management to maintain the trust and confidence of contributors and other stakeholders in the governance of the industry.

Fifth, foster connectivity between pension fund management and stakeholders through better data availability and transparency. Data availability and cross-country comparability for research, analysis and policy design are currently a challenge. Pension systems in each country are a hybrid of defined benefit and defined contribution schemes with little to no clear-cut rules and regulations. This complicates the definition of pension assets and different sources quote different numbers, making it difficult for interested parties to monitor and analyze developments.

As a suggestion for improvement, the OECD already maintains an excellent database on pension funds of OECD countries but only selected data for about 38 non-OECD countries. Not all of the Asian countries are covered by the OECD. Asian pension fund authorities should therefore participate in OECD surveys so that comprehensive and up-to-date Asian pension data are readily available in OECD's annual publication of Pension Markets in Focus and its Annual Survey of Large Pension Funds. The latter Survey of Large Pension Funds was published for the first time in 2012 and is part of a recently launched OECD project on "Institutional Investors and Long Term Investment", a topic that is of much relevance to the future of Asian finance.

Over time, as more pension funds, countries and other institutional investors (such as insurance companies and sovereign wealth funds) participate in this project, the survey will provide invaluable insights on the flow of funds and detailed investment information to complement the administrative data gathered at the national level. Regulators and policymakers will better understand global investment trends and practices, and be in a position to respond to the demands of institutional investors.

## IV. Conclusion

There is worldwide interest in improving pension fund systems and the tremendous amount of literature written on this subject is testament to heightened concerns in developed countries about the adequacy and sustainability of their pension systems. Many countries in Europe, in particular, are facing the prospect of large funding shortfalls and this has driven many pension fund schemes to adopt a more aggressive approach in generating higher returns on their investments by seeking new assets in new sectors and in emerging markets that have stronger growth potential. Venturing into lesser known territories has its risks and this has led to a suggestion (Monk, and Dixon 2013) for the introduction of a "governance budget" as a "concept that seeks to quantify the investment a pension fund makes … to determine the level of investment risk they can take" within their internal capabilities. Another line of approach that is being widely discussed in the UK is how to create a new platform for more equitable sharing of risks between the employer and the employee, necessitated by the trend towards displacement of the defined benefit pension system with defined contribution pension schemes. Currently, beneficiaries of defined contribution schemes bear all of the risks of investment, inflation and longevity.

Most developing countries have another 10 to 15 years before being confronted with issues of pension system sustainability and adequacy. The Asian Development Bank has been at the forefront of studying pension systems in Asia, highlighting their concerns and suggesting approaches to early reform so as to avoid the pitfalls of funding gaps and the socio-economic repercussions of such an occurrence. Fung Global Institute (FGI) shares these concerns and concurs that reform of Asian pension systems is imperative. From the macro perspective, pension systems in most of Asia currently occupy the lower end of the global scale in terms of size, but with the focus on increasing coverage, pension funds have the potential to become major institutional investors, thus contributing to the deepening of capital markets in the region. In this context, FGI considers pension systems as an integral component of the future financial framework of Asia.

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