Asia-Pacific
Economic Cooperation

Initiative on Ageing Issues in APEC
"Ageing and Financial Markets"
Proceedings

APEC Finance Ministers' Process

December 2008

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APEC Finance Ministers' Meeting
Progress Report on the Initiative on Ageing Issues in APEC
"Financial Markets and Ageing"
November, 2008 Trujillo, Peru

I. Executive Summary

1. Challenges from the financial market

APEC economies face ageing related financial market challenges. In addition to ongoing efforts to deepen the financial market, APEC economies need to develop ageing related financial market products to address these challenges. The diverse economies in APEC call for greater harmonization and cooperation in the development of ageing related financial instruments cross-border transactions/investment, regulatory framework and incentives. Governance and transparency of ageing related financial entities and regulatory bodies need to be addressed. Greater political awareness on ageing related issues including consumer education and protection is considered important.

2. Policy points for discussion:

- Need to encourage a variety of ageing related financial products
- Consider harmonizing and greater cooperation in ageing related financial market development; ensure clear and consistent framework and incentives
- Consider pension funds reforms, including generosity of benefits, retirement age, and facilitating private scheme
- Strengthening governance and management of ageing related financial entities and regulatory bodies
- Enhancing ageing related communication and promoting consumer education in financial planning

II. Background

At the 13th APEC Finance Ministers' Meeting in September 2006 Hanoi, Vietnam Ministers acknowledged the importance of carrying out a project to explore the issues of ageing in the APEC region and derive policy considerations. Ministers stated their commitment to address the challenges and seize opportunities as population age, and welcomed Korea's proposal to continue the study on this issue based on the expert group's work done in the previous year. A core group composed of member economies from China, Korea, Chinese Taipei, Thailand, the United States, ABAC, and the IMF was launched at the end of 2006. The three-year initiative (2007-09) is divided into two primary subjects: "Financial Markets and Ageing" and "Public Finance and Others in Ageing."

III. Progress

1. 1st , 2nd, and 3rd Core Group Meetings

The first meeting was held on March 29–30, 2007, in Seoul, Korea. During the first meeting, experts and government officials from five member economies submitted their project proposals. Through roundtable discussions and review sessions, experts discussed their projects within the group and received valuable comments and inputs for further development of their projects.

The second core group meeting was held on June 21–22, 2007, on Jeju Island, Korea. All member economies except for Thailand and the United States in the core group participated in this meeting to further develop their projects.

The third core group meeting was held on October 19 in Shanghai, China, under the main theme for 2007–2008, “Financial Markets and Ageing”, co-sponsored by the Ministry of Strategy and Finance, Korea, Korea Institute for International Economic Policy (KIEP), MOF, China, and AFDC. All members of the core group except for the United States attended the meeting. The meeting was a time to review the developments of the case studies prepared by each core group member economy.

2. APEC-IMF High Level Seminar

As the final step of the core group meetings, APEC co-hosted a high-level seminar with the IMF. The seminar was divided into seven sessions including an opening and concluding session led by seven speakers and two moderators: “Worldwide Issues on Ageing and Financial Markets,” “Safeguarding Our Nation’s Egg,” “China’s Ageing Security System and Pension System Reform,” and “Population Ageing and Financial Markets in Korea.” In the first part of the seminar, general issues regarding ageing and financial markets were discussed amongst representatives of APEC, IMF, and the OECD. In the second part, member economies, including China, Korea, and Thailand, presented their case studies. The seminar was not only successful in examining the ageing issue within the APEC region, but also in deriving policy considerations. Although Chinese Taipei and ABAC were not able to participate in this last seminar, their contributions will be included in the compendium presented to our Finance Ministers in November 2008, at the APEC Finance Ministers’ Meeting.

2.1 Outcome of the meeting

Session 1 “Worldwide Issues on Ageing and Financial Markets”

Presentation by the IMF

Building on cross country experience, the IMF reviewed key roles of various sectors and institutions, as well as financial innovation, in helping countries to manage ageing-related risks. While the macroeconomic challenges associated with ageing have already been much analyzed, the financial market implications are more complex and uncertain. The risks involved relate not only to overall savings levels, but also to long-term market risks, such as interest rates, inflation, credit and operational risks. Importantly, uncertainties affecting future longevity and health care costs also introduce major challenges in managing ageing-related liabilities. While it is unclear what impact ageing will have on prices across asset classes, the development of capital markets can help to better share and manage the above ageing-related risks across sectors. Three possible and complementary approaches may be considered in this regard, depending on each country's circumstances: using the government's own balance sheet, facilitating the management of these risks by financial institutions, and/or tapping into households to manage or absorb the risks. In many countries, the public sector has (often implicitly) assumed large ageing-related long-term liabilities through pension and health care provision, which will generate increasing fiscal pressures. While such public exposures need to be managed and generally better accounted for, governments may take new roles through targeted, cost-efficient, and possibly temporary interventions to provide solutions where private markets may be unable to. In parallel, pension funds and insurance companies, which have become the largest investor classes in many countries, need to be in a position to better manage ageing-related liabilities, as illustrated by the recent difficulties in the pension fund industry. The further development of financial instruments and markets, including long-term and inflation-linked bond markets or, more hypothetically, longevity bond markets, is needed to support stronger risk management by these institutions. Finally, while households increasingly need to manage themselves the above long-term risks, their ability to do so is generally limited. This raises the need for further efforts to provide households with greater financial education, better financial advice, and retail products that enable them to more easily diversify and improve their long-term savings and investment strategies. For all of the above approaches, financial innovation and techniques to manage and transfer ageing-related risks (e.g., such as developed in the banking sector) can be encouraged, and several areas for policy action can be identified in this regard. For example, the availability of sufficiently reliable and granular data (e.g., on longevity and mortality tables), and clear and consistent regulatory frameworks and incentives, have the potential to allow for significant improvements in the measurement and management of long-term ageing-related risks in all sectors.

Presentation by the OECD

Pressing issues regarding retirement financing are the availability of suitable instruments to cover the payout phase. Although life insurance companies seem adequate in providing deferred annuities, they are reluctant to provide such services due to considerable mismatch between the asset and the liability sides of the balance sheets, which exposes them to longevity, inflation and interest rate risks. To allow financial intermediaries to offer annuities, suitable instruments to hedge these risks must be available. One would think that hedging interest rate risk is relatively straightforward, but upon closer inspection, it turns out that this is not the case.

There is growing consensus that assets-liability matching by pension funds implies a shift of assets allocations away from stocks and into bonds, especially to government bonds, but there are limitations in the supply of suitable investments for financial institutions that have (long-duration) liabilities. Suitable investments would appear to be in particular long-term and ultra-long-term government bonds, given their limited credit risk and long duration. But it seems that there is considerable scarcity for government bonds. For example, it turns out that under a set of not unreasonable assumptions regarding investment demand for government bonds motivated by attempts to generate future regular payment streams to finance retirement incomes, such demand would exceed supply exceeds the supply by three times in the case of bonds with maturities of between 10 and 15 years. So, should the government take any actions regarding this issue? So far, debt managers have not supported this proposal and also, OECD members felt that private-market-based solutions should and will emerge. Private-market solutions to address pension-related interest rate risk are indeed emerging, but they also raise new issues. One of them is that many solutions imply that part of the interest rate risk is transformed into counterparty credit risk. One question is to what extent is credit risk exposure acceptable for institutions providing retirement financing? Ensuring a high degree of pension benefit security is a major policy goal; however, credit risk would seem to be inappropriate for financial institutions designed to ensure a high degree of benefit security. Another question is whether or not government should take any actions in providing investment solutions that would be consistent with the current mandates of government debt managers. There was no support among debt managers when OECD's Working Party began to discuss this question in 2006, as such a strategy would not be within their normal mandates. But, the issue remains relevant, and the question is whether these mandates are sufficiently general to allow governments to address the risks related to pension income adequacy. In this context, there are policy proposal to use soft compulsion to encourage or, perhaps, even to mandate deferred annuitisation of parts of household retirement wealth. Such proposals would appear to require that suitable financial instruments are available so that annuity providers would be able to hedge at least some of the interest rate risks over long horizons.

Presentation by APEC

Population ageing is a global phenomenon and Asia is no exception. The disparity in the stage of development of the member economies of APEC makes it useful to divide the region into five groups according to per capita income before putting the issue of ageing into perspective. Emerging Asia (consisting of China, Thailand, Philippines, Malaysia and Indonesia), especially, is witnessing a dramatic demographic change. The existing social arrangements in Emerging Asia are a mix of defined benefit and defined contribution plans (such as provident funds) for civil servants and the organized sector workforce. These funds are often invested in government securities with low returns. Easy withdrawal rules translate into low terminal balances.

These economies also have substantial unorganized sectors, which are largely uncovered by formal social security. Fiscal stress emanating from the present schemes makes it difficult to extend similar provisions to the unorganized sector, so the path taken in the past by presently developed economies, to provide substantial unfunded benefits to the elderly, is unlikely to be available. This increases the importance of the role of private saving for retirement. Policy measures that motivate and facilitate voluntary retirement savings are necessary, as is promoting financial literacy at a young age. In the accumulation stage, diversifying into equity and imposing rules on early withdrawals are also important. After retirement, the payouts need to be carefully designed and the options that range from phased withdrawals and life annuities to more sophisticated hybrid products and reverse mortgages need to be considered. This will drive policy to more comprehensive support for the operation of private financial markets.

However, there is a wide disparity in governance and financial market sophistication between the developed group and the emerging Asia group and financial markets and products in emerging Asia are frequently fragile. Cooperation across the APEC region is therefore critical. The APEC community can be used as a crucible for information sharing and inter-jurisdictional co-operation in the domain of retirement support and insurance markets, financial products and regulation. The APEC relationship could be leveraged to underwrite foreign direct investment and international risk diversification in the retirement insurance sector. Governments can also issue a wider range of debt instruments including inflation-indexed bonds, longevity bonds, similar to the co-operative arrangement in the Asian Bond Fund. Household surveys may also be conducted in the region to better understand consumption and retirement preparedness of people.

Session 2 “Safeguarding our Nation’s Egg” (Thailand)

Thailand’s social security system, which was established in 1990, is a relatively young system compared to those in other countries. Currently, the system accumulated more than 430 billion baht, of which roughly 300 billion baht is for the old-age pension system. Since the system is new, there are not many old people in the system, but in 20 years it will start to pay out.

There are four pillars that illustrate the main sources of support for elderly people: own income, savings, immediate family, and government programs. Based on the micro-data, we can draw the conclusion that it will be difficult for Thailand’s elderly to support themselves in the future. Basically, the average rate of elderly participating in the labor force increased, but their wages dropped after they reached age 50. Most people do not save enough for retirement, since living day-by-day is more important to most people than making savings for several decades later. 77% of elderly people say that their main source of income is from their offspring. As overall statistics indicates about the decrease in the proportion of elderly living with offspring, weaker family connections mean it will be difficult for the elderly to receive money from their families. Also, the number of working-age persons per dependent population will drop from 13 in 2000 to 3 in 2050, which means it will be harder for children to support their elders. Thus, it is important to strengthen the current social security system to support elderly people.

In order to revamp the current system, Thailand’s government should reduce the program’s generosity by raising the contribution rate to 10-12% from the current level of 6%. And to ensure adequate support for the elderly people in their retirement, the government should increase benefits to 20% for the first 15 years while maintaining the additional 1% increase for every 12 additional months. Also, fixing the details of the system such as wage indexation, benefit indexation, average wages calculation, incentives for delayed retirement, and the monitoring system is imperative. In the long-run, support through private accounts to supplement the defined benefit system and the implementation of a structural policy on education/savings are important.

Session 3 “China’s Ageing Security System and Pension System Reform” (China)

China’s pension reform witnessed big changes in the past decades. During the planned economy period, enterprise was the main body responsible for the pension system. After 1984, the social pooling system was implemented, and after 1993 China engaged in building up a multi-pillar pension system that combined social pooling with individual accounts. In recent years, the government focused on resolving problems such as establishing a minimum standard of living and the National Social Security Fund.

The current status of China’s pension system follows the model advocated by the World Bank, but with some modification. This five-pillar system only covers urban people partly, especially formal employees, excluding the rural population, which account for 70% of the whole people in China.. The rural pension reform is acknowledged as an urgent problem by the Chinese government. During the 1990s, efforts to establish a rural pension program were launched, but they were unsuccessful due to high management cost, the uncertain level of income among rural people, and small coverage due to local system support.

Another important factor in China's pension system is the National Social Security Fund (NSSF). Its reserve is pooled by the central government acting as the fund of last resort. It is funded by various sources and can be invested for appreciation according to the regulation. The NSSF's portfolio is becoming diversified and investments in equities are expanding rapidly. In recent years, direct investment, equity investment, and overseas investment became major tasks for the NSSF.

China's pension system experiences difficulties such as low coverage, financial risks, and management problems. It order to tackle such problems, the coverage of the social pooling fund should be expanded to benefit more people, set up a first pillar of the pension program with national pooling, low contribution rate, and inclusive coverage of different groups. More financing channels should be found to fund individual accounts to make up for implicit pension debt. Also, the government should encourage enterprise to establish enterprise annuities and encourage people to build individual retirement saving plans. Finally, the government should strengthen the operation and management of pension fund.

Session 4 "Population Ageing and Financial Markets in Korea" (Korea)

Population ageing is expected to have noticeable effects on the financial markets. Initially, financial markets may benefit from the larger savings and asset demands of the people who try to provide for elongated retirement life. There are data on the lifecycle theory of consumption and other data to support this. The aggregate savings rate, however, will eventually decline, possibly putting downward pressure on asset prices. This is further complicated by a few unique Korean traits, such as the strong preference for real estate and the depletion of the National Pension Fund (NPS). The advantages of pension funds is that they help market development in terms of size and scope, enhance market efficiency, and reduce volatility. They also serve to enhance corporate governance. However, the funds may also be a destabilizing factor, as they are often large relative to the size of financial markets. The policy implications and recommendations drawn up in the paper include reforming the public pension system, and supplying financial products tailored to the needs of the elderly, fostering the financial market, and developing the asset management industry and institutional investors in the local sphere. Looking outside of Korea, there need to be stronger international financial market linkages.

Session 5 "Concluding Session"

One of the objectives of the core group was to develop practical policy recommendations to address the issue of population ageing and its link to financial markets for consideration by the Finance Ministers' Meeting November 2008. The different levels of financial market development of the APEC member economies challenge the work of drawing up policy recommendations; yet, there is some common ground. There are probably similar macroeconomic impacts related to ageing. The decrease in population size would stimulate an economy to strive for larger improvements in labor productivity to maintain the level of economic growth, but there are limitations to this. There are many approaches to addressing the economic implications of a shrinking labor force; some of these may include considerations of new policies on migration and importing labor. Ageing also impacts the population's savings rate and the variety of instruments in which assets are held over time.

There needs to be increased political awareness regarding the macroeconomic issues from aging. Economies with a young population will experience a more benign impact, assuming they have the fundamentals right. On the other end of the spectrum, there are economies that are already burdened with the impact of ageing. One important policy is to ensure that the population is sensitized to the importance of addressing this matter, which will serve as an important basis for galvanizing the political will to act on these issues.

Another general policy recommendation is for governments to expand financial education, to include elements of financial planning for retirement and old age care. There is a wide range of education to offer, from the basics that will be necessary in developing and emerging markets to investor education for those who are more sophisticated but still lack knowledge about the different investment products and their associated risks.

A specific policy recommendation relates to making an economy's pension system perform better by working towards more effective interactions with the financial markets to support the ageing process. This would involve both the investment framework for savings during the accumulation stage through to the array of instruments available at the payout or draw-down stage. Action plans should be developed to address each of the different issues that arise depending on where one is in the spectrum of ageing and the state of development of a country's financial market. In this sense, access to data and information is important. Above all, many economies would need to be more transparent about issues relating to the sustainability and the sufficiency of coverage of the public pension system. Issues to be addressed would include actions needed to preserve the actuarial value as well as enhancing the returns of already accumulated pension funds.

It is clear that different sets of policy recommendations are needed to be acted upon by governments, the individual, the market, and the corporate sector. Some economies may wish to assert that the government's role should be confined to that of a last resort or safety net. Its principal role would relate to developing regulations and oversight to ensure competitive market conditions and appropriate risks management. At the same time for developing and emerging economies, governments also have liabilities in the form of existing pension obligations and they would need to work to mitigate the fiscal impacts from these obligations. Another element of ageing other than pension income is old age health costs. Economies will need to deal with how financial markets can mitigate the risks from providing adequate health care, through the development of insurance products and other instruments. Individuals and institutional investors also have important roles in the financial market for pension and health insurance products. They could ensure proper governance and management of pension funds.

A few member economies would need to quickly put in place regulatory and supervisory measures consistent with international standards for this purpose. Government policy should make savings for retirement mandatory and also allow the management of these funds either by the individuals or by other regulated entities. Government and the private financial markets should interact to ensure that these funds are well managed and sufficient to cover the ageing-related needs of the population.

Cross-border cooperation among APEC economies is also important in broadening financial markets and instruments to support ageing related investments. There are already a number of the good regional financial cooperation mechanisms involving some APEC economies where some good experiences could be drawn for cross-border cooperation in developing the market for ageing-related financial products and financial markets.

It is crucial to develop an array of instruments in ageing-related and financial market products. Some of these instruments may be complex and not well understood, which also makes them challenging to regulate. But on the other hand, excessive regulation may hinder market development. This requires a delicate balance of policies.

2.2 Core Group Members not present at the seminar

"Ageing Issues and Insurance Products Development in Chinese Taipei" (Chinese Taipei)

The presentation mainly focused on the ageing issues in Chinese Taipei and the possible solutions offered by the insurance sector-primarily in the form of insurance products-to satisfy individuals' financial and medical needs in old age. It also addressed Chinese Taipei's recent major reforms in the Labor Pension Scheme and National Pension Plan and analyzed the possible role of insurers to fill the gap of the social security protection. Finally, it drew some policy recommendations to ensure sound insurance product development to cope with the needs of the ageing society.

In Chinese Taipei, the ageing pace of the society is much faster than many other countries. The government predicts that the old-age dependency ratio will increase from 13% in 2001 to 34% in 2036. The fertility rate was reduced to 1.1 children by 2007. Despite of these demographic trends, demands for the annuities and long-term care insurance products, which have long been regarded as proper vehicles for better old-age protection, remain insignificant. On the other hand, opportunities lies in the growing ageing population as consumers require more retirement and annuity products. Given such background, the presentation suggested certain potential insurance products for the ageing society, such as foreign currency denominated annuities, variable annuities with guaranteed features, annuity house or reverse mortgage. Moreover, it identified key challenges, including inadequate product pricing, asset-liability matching issues, impacts on solvency and unpopularity of insurance literacy, to insurance companies on how to deal with longevity risks and looked at the supervisory mandates that regulators should be focused.

"Financial Effects of Ageing in Society" (ABAC)

The presentation from ABAC first looked at demographic trends in the APEC region. According to the presentation, societies are ageing rapidly, cost of health and long term care are likely to be significant. Pension liabilities may currently be underestimated though reform is more urgent in some APEC economies than others. Better managed flows of income in retirement and replacement levels are necessary and unfunded liability is another major issue. The government must make the lead and the private sector will provide solutions.

2.3 Discussions on policy recommendations

APEC-wide policy considerations

- Boost regional communication
- Enhance communication about regulation of financial products
- Increase membership of the International Organization of Pension Providers (IOPS)
- Conduct household surveys in the region
- Encourage government debt issuance

- Inflation-indexed bonds
- Longevity bonds
- Asian bond fund
- Enhance flows of FDI and international financial transactions
- Encourage bilateral trade and investment in the financial sector
- Document tax and other financial market idiosyncrasies in APEC member economies
- Risk sharing through wholesale products such as swaps
- Globalization of insurance flows, similar to the globalization of capital flows over the last century

Economy specific policy considerations

- Short run: Address the excessive generosity of the scheme promptly before further expansion
- Medium run: Fix the details of the pension fund

  - Wage Indexation
  - Benefit Indexation
  - Average wages calculation
  - Incentive to delayed retirement
  - Monitoring system

- Long run: Move toward a private-account system to supplement the defined benefit
- system and actively implement structural policy on education/savings.
- Postpone the compulsory retirement age
- Expand coverage of the social pooling fund
- Fund individual accounts and make up for implicit pension debt with more financing channels
- Encourage enterprises to establish enterprise annuity
- Promote people to build individual retirement saving plans
- Improving macroeconomic and financial sector preconditions necessary for multi-pillar reform
- Strengthen operation and management of pension funds
- Domestic policy reform
- Reform the public pension system
- Supply financial products tailored to the needs of the elderly
- Foster financial markets
- Develop the asset-management industry and institutional investors
- Greater international cooperation
- Enhance international financial market linkage
- Encourage product Innovation and development
- Enhance insurance companies’ asset liability management efficiency
- Strengthen solvency requirements for insurance companies
- Promote product information disclosure and consumer education
- Ensure clear and consistent regulatory framework and incentives
- Capital relief influences the ability to attract more capital and innovative solutions
- Examples: Switzerland (insurance supervision), the Netherlands (pension fund supervision)
- Secure the availability of data for risk management
- Reliable and sufficient data to support pricing and trading of risk-transfer instruments, develop risk assessment models, and construct benchmarks or indices

- Lack of data on mortality in higher age categories increases the uncertainty associated with longevity risk, resulting in higher capital requirements
- Low-cost method of supporting market-based solutions

IV. Further work: “Ageing and Public Finance and Others”

The three-year Initiative on Ageing Issues in APEC (2007-09) is divided into two primary subjects: "Financial Markets and Ageing" and "Public Finance and Others in Ageing." The first part implemented under the theme of "Financial Markets and Ageing"(2007-2008) constituted of three workshops and a high-level seminar. Seven member economies including, China, Korea, New Zealand, the United States, Chinese Taipei, Thailand, and ABAC, IMF, and OECD participated in this initiative to derive policy considerations to the region. The results will be combined with the outcome of the second part of the initiative "Public Finance and Others in Ageing" which will launch in November 2008. The final result, including policy recommendations regarding financial markets, public finance and others in ageing issues in the APEC region will be presented to the Finance Ministers at the 2009 FMM.

APEC-IMF High Level Seminar
"Ageing and Financial Market"
Grand Intercontinental Hotel, Seoul, Korea
May 21-23, 2008
Agenda

Wednesday, May 21

17:00-18:00 **Registration**

18:00- **Dinner Reception**
Mr. Jeong Eun Bo *(Deputy Director General MOSF Korea)*
Intercontinental Hotel (Camellia Room)

Thursday, May 22

08:45-09:15 **Registration**
Carnation Room (B1)

09:15-09:30 **Welcoming Speech**
Dr. Chae Wook *(President, Korea Institute of International Economic Policy)*

09:30-11:30 **Session I. Worldwide issues on Ageing and Financial Market**
Moderator: Dr. Junkyu Lee
Presenter: Mr. Nicolas Blancher (*IMF)*
Presenter: Dr. Sebastian Schich *(OECD)*
Presenter: Professor John Piggott *(APEC)*
Discussion:

11:30-11:45 **Coffee Break**

11:45-12:45 **Session II. Safeguarding our Nation's Egg**
Moderator: Dr. Doo Yong Yang
Presenter: Dr. Kobsak Pootrakool *(Thailand)*
Discussion:

12:45-15:00 **Luncheon hosted by the IMF**
Rose Room (B1)

15:00-16:00 **Session III. China's Ageing Security System and Pension System Reform**
Moderator: Dr. Doo Yong Yang
Presenter: Dr. Rui Ji *(China)*
Discussion:

16:00-16:15 **Coffee Break**

16:15-17:15 **Session IV. Population Ageing and Financial Markets in Korea**
Moderator: Dr. Doo Yong Yang
Presenter: Dr. Daekeun Park *(Korea)*
Discussion:

18:00- **Dinner hosted by the KIEP**
Rose Room (B1)

Friday, May 23

09:00-10:00 **Session V. Ageing Issues and Insurance Products Development in Chinese Taipei**
Moderator: Dr. Junkyu Lee
Presenter: Ms. Li-Chun Chen *(Chinese Taipei)*
Discussion:

10:00-10:15 **Coffee Break**

10:15-11:15 **Concluding Session VI.**
Moderator: Dr. Junkyu Lee
Presenter: Mr. Chee Sung Lee *(IMF)*
Discussion:

Demographic shift and financial markets in APEC

John Piggott and Renuka Sane
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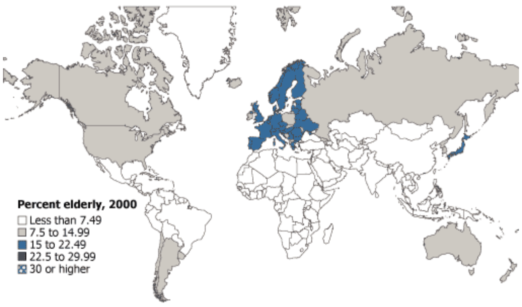
APEC-IMF high level seminar on “Ageing and Financial Markets”, Seoul, May 2008

Outline

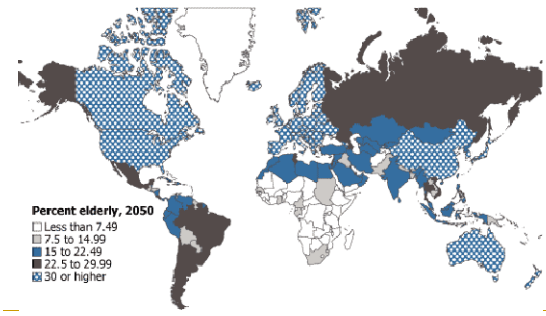
- Ageing in a global context
- APEC economies: similarities and differences
- Retirement savings and incomes: products and possibilities
- Broad policy recommendations

Percent 65+, 2000



Toshiko Kaneda http://www.prb.org/images3/PercentElderly2050.gif

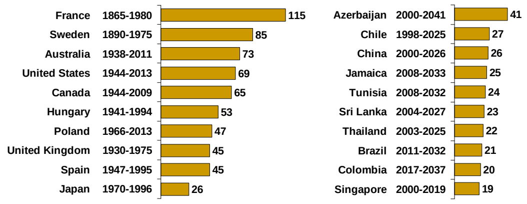
Percent elderly, 2050



Toshiko Kaneda http://www.prb.org/images3/PercentElderly2050.gif

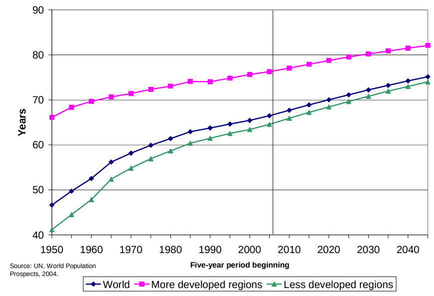
Speed of population ageing in selected countries

- Number of years for percent of population age 65 or oder to rise from 7% to 14%



* Dates show the span of years when percent of population age 65 or older rose (or is projected to rise) from 7 percent to 14 percent.
Source: K. Kinsella and Y.J. Gist, *Older Workers, Retirement, and Pensions: A Comparative International Chartbook* (1995) and K. Kinsella and D. Phillips, "The Challenge of Global Aging," *Population Bulletin* 60, no. 1 (2005).

Increasing longevity

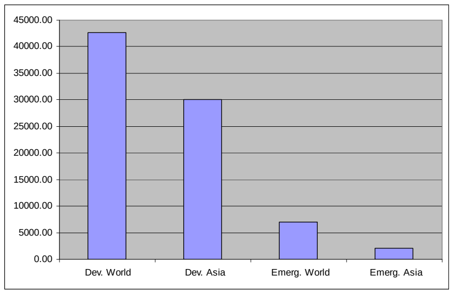


APEC in perspective

We divide APEC into five groups

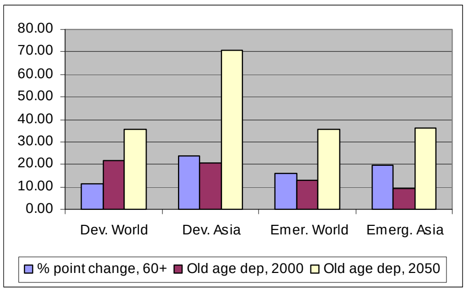
- Developed world: United States, Canada, Australia, New Zealand
- Developed Asia: Japan, Singapore, Hong Kong, South Korea, Chinese Taipei
- Emerging world: Mexico, Russia, Chile, Peru
- Emerging Asia: Malaysia, Thailand, China, Indonesia, Philippines, Vietnam
- Developing: Brunei Darussalam, Papua New Guinea

APEC economies: Weighted per capita incomes



Source: UN per capita GDP and World population indicators

APEC economies: ageing trajectories (weighted by population)

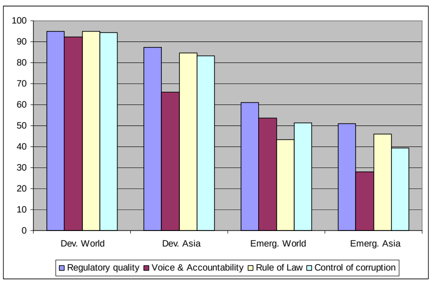


Source: The 2006 revision population database, UN

Existing social security arrangements in Emerging Asia

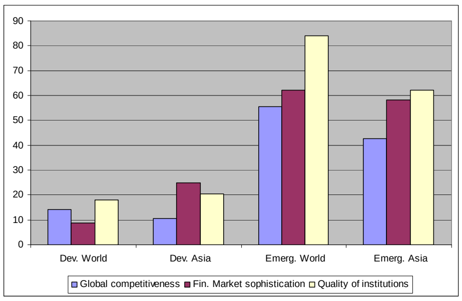
- PAYG, DB schemes for civil servants
- Provident funds for the organised sector
- Over investment in government securities: low returns
- Easy withdrawal rules: low terminal balances
- Patchy coverage: large part of the unorganised sector not covered
- Concern about fiscal stress

Governance indicators: average percentile rank



Source: World Bank Governance Indicators, 2006

Global competitiveness: average rank



Source: World Economic Forum, Global competitiveness report, 2007-08

What do we therefore know about the APEC region

- Different rates of change at dramatically different per capita incomes
- In the emerging Asia group, not much exists in terms of social security to deal with population ageing
- Fiscal stress does not allow going the developed-world or the OECD way
- Wide disparity in governance and financial market sophistication

Saving for retirement: accumulation stage

- Design of policies to motivate and facilitate voluntary retirement savings
- Distribution channel, administrative costs
- Promoting financial literacy
- Diversification into equity; International diversification; index funds.
- Phase-out of equity exposure with age
- Withdrawal rules while in the workforce

But what after retirement: designing payouts

- Phased withdrawals
- Life annuities
- Hybrid possibilities
- Other risk sharing products:
  - Variable annuities
  - Group self annuitisation
  - Reverse mortgages

Phased withdrawals

- Allow intermittent access to capital within preset maximum and minimum limits based on life expectancy at retirement
- However little or no flexibility when near the exhaustion of resources
- Half of the retiree cohort may live longer than that predicted by the life expectancy at retirement

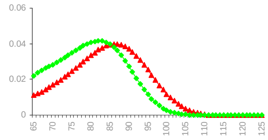
Annuities

Reasons for annuities being a small market are standard

- Asymmetric information => adverse selection
- Bequests
- "Crowding out" by age pension/safety net
- Myopia
- Other supply side issues

Example of adverse selection

Annuity purchasers live LONGER → asymmetric information. Insurers price accordingly: Money's worth



	UK	US	Australia	Italy
Pop	.90	.81	.91	NA
Ann	.97	.93	.99	.96

Problems with mandatory annuitisation

- Genuine competition difficult to guarantee in a captive market; Loadings likely to be higher
- Buyers face unpredictable risks around the annuity factor prevailing at the point of retirement, stemming primarily from interest rate variations
- Does not address the other negatives

Hybrid possibility

- Phased withdrawal, combined with deferred annuity.
- Example 1: Mandatory annutisation in the UK, but after age 75.
- Example 2: Temporary withdrawal and deferred annuity in Chile

Risk sharing

- Variable annuities
- Group self annuitisation
- Reverse mortgages

Risk sharing: variable annuities

- Variable Annuities
  - Allow adjustment of investment portfolio after retirement
  - Two Tier Annuities: pay more if need nursing care

Risk Sharing: GSA

- Assign idiosyncratic risk to the insurance company and leave the systematic risk with the annuitant.
- Example: TIAA-CREF
- New cohorts to be admitted into the insurance pool.
- Payout formula must guarantee that new entrants face an ex ante expectation of an actuarially fair payout

Risk sharing: Unlocking home wealth

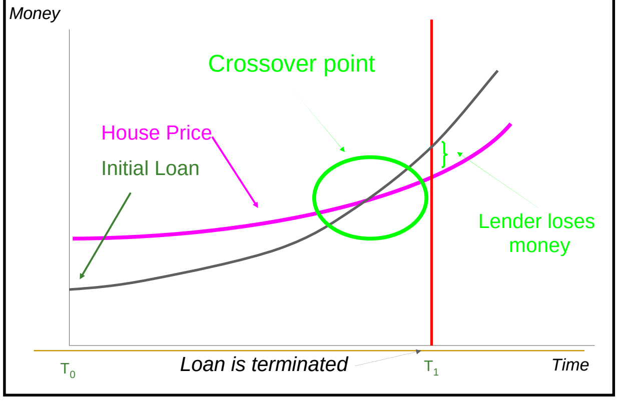
What is a reverse mortgage?

- Non-recourse loan, repaid with interest when home surrendered (e.g., at death)
- Costs: Loan origination, inspection to set home equity value
- Reinsurance: lender needs liquidity, risks slow growth in home value, mortality risk

Comparing conventional and RM annuities: RM like a "family" annuity

	Conventional Annuity	*RM Annuity*
Premium	Premium due up front	Premium due on closure
Bequest	Once for all reduction	Gradual reduction
Payment	Higher	Lower

Crossover Risk in RMs



Some examples: Reverse mortgages

- Programs like Home Equity Conversion Mortgage (HECM) in the US, could be encouraged elsewhere.
- Innovations by Bluestone ('protected equity option') and Xcapital (incorporates eventual accommodation in a retirement home and long term health care) in Australia.
- Securitisation of RMs. Two so far: Lehman Brothers (1999) and Citibank (2001)

Institutional support for RMs:

- Real estate market not transparent
- High transaction costs
  - Commissions, closing fees
  - Transactions taxes
- Model uncertainty: mortality, turnover, equity growth, moral hazard
- Tax uncertainty: Income, capital gains, remaining estate tax treatment
- Legal Uncertainty:
  - Requires homeowner insurance, upkeep, etc
- Demand will grow!

Popn Ageing and Financial Integrity

- Financial integrity challenged by increasing longevity in several markets
  - Annuity, life insurance, reverse mortgage, health insurance, aged care insurance, liability, auto
- Popn Aging means more longevity risk around:
  - which eventually markets and new products will move to insure, increasing risk management issues

Products and policies for APEC: Communication

- Enhance communication about regulation of financial products
- Increase membership of the International Organisation of Pension Supervisors (IOPS)
- Household surveys in the region

Products and policies for APEC: Government Debt issues

- Inflation indexed bonds
- Longevity bonds
- More issues such as the Asian bond fund

Products and policies for APEC: FDI and international financial transactions

- Encourage bilateral trade and investment in the financial sector
- Document tax and other financial market idiosyncrasies in APEC member economies
- Risk sharing through wholesale products such as swaps
- Globalisation of insurance-flows, similar to the globalisation of capital flows over the last century

New areas that APEC can focus on

- System that does not require dramatic reversal of asset allocation pre and post retirement
- Development of longevity insurance products
- Stronger longevity protection markets
- Opportunities for accessing home equity
- Evidence based regulation

- Thank you

- Questions?

Worldwide Issues on Ageing and Financial Markets

APEC-IMF High-Level Seminar
Seoul, Korea
May 21-23, 2008

Nicolas Blancher
Monetary and Capital Markets Department
International Monetary Fund
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The IMF's Perspective

- Macroeconomic and financial stability
- Surveillance: multilateral and bilateral; policy recommendations
- Monetary and Capital Markets Department's *Global Financial Stability Report (*risk transfer series)

Outline

- Managing ageing-related risks
- Cross-sectoral risk sharing and market implications
- New markets for ageing-related risks
- Wrap up

Ageing-related challenges & risks

- Macroeconomic and financial impact in all countries
- Macroeconomic challenges already much analyzed
- Financial market implications are complex and uncertain
  - Potential impacts on financial markets
  - Need for new (or more developed) markets and instruments
- Risks involved in managing ageing-related liabilities…
  - Overall savings level & performance
  - Market risks (e.g., interest rate, credit,…)
  - Inflation risk (benefit indexation)
  - Operational risk
- … and uncertainties
  - Longevity risk (increases in longevity have consistently exceeded actuarial forecasts)
  - Health care costs (rapid and difficult-to-predict growth)

Strategic long-term risk sharing

- Proactively addressing long-term risks
  - Engineering the desired cross-sectoral risk-sharing
  - Influencing the allocation and management of risks in the system
  - Dispersing risks where they can be best managed
  - Ensuring that each sector is well equipped
- Three possible approaches
  - Use governments' own balance sheet
  - Encourage market-based solutions (more "complete markets")
  - Households best positioned to manage or absorb risks
- Each approach has various implications for capital markets

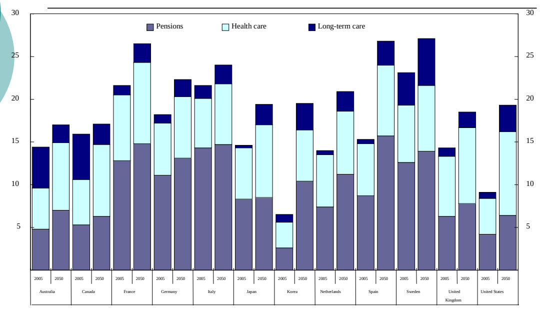
5

Public sector

- In many countries, the public sector has assumed or warehoused many long-term risks
  - Explicitly and implicitly ("insurer of last resort" role)
- Pension & health care provision are expected to put further pressure on public finances in the medium term
- Better accounting for risk exposures in the public sector
  - Government accounting often does not provide for the quantification and reporting of all long-term obligations
  - Stronger public accounting and reporting may lead to more robust long-term fiscal frameworks
- The role of the state ("welfare state") may be re-thought
  - Managing down the public liability (e.g., parametric reforms)
  - From retirement income provision to safety net role?
  - Very different starting points across countries

6

Figure 1. Ageing-Related Government Expenditures
(In percent of GDP)



Source: Standard & Poor's.

7

New roles for the public sector

- Targeted interventions, as part of a comprehensive risk management strategy
  - Cost/benefit analyses
  - Potential for financial market solutions
- Providing solutions where private markets may be unable ("incomplete markets")
  - Already a recognized role in areas where risks (or related costs) are deemed too great or undiversifiable in the capital markets
- Catalytic or transitory roles
  - E.g., insuring *extreme* catastrophe risk to attract private capital
  - Temporary interventions (e.g., Mexico's *Sociedad Hipotecaria Federal* to improve mortgage market liquidity)

8

Financial sector

- Pension funds and insurance companies
  - Already the largest investor classes in many countries
  - Major global players
- Expected to grow further
  - Many countries moving toward increased funding of pension liabilities
- PFs are increasingly relevant to global financial stability
  - Can move markets through changes in their asset allocation strategy
  - May enhance financial stability by acting as a stable, long-term investor base

Assets Under Management by Institutional Investors

	1990	1995	2000	2005	2006
(In trillions of U.S. dollars)					
Institutional investors	**11.4**	**21.3**	**38.1**	**55.2**	**63.6**
Insurance companies	4.9	9.1	10.1	15.3	17.4
Pension funds	3.8	6.7	15.7	20.7	22.6
Investment companies[1]	2.6	5.5	11.9	17.8	21.8
Hedge funds	0.0	0.1	0.5	1.4	1.8
(In percent of GDP)[2]					
Institutional investors	**63.6**	**88.2**	**148.1**	**157.4**	**172.3**
Insurance companies	27.6	37.6	39.2	43.7	47.2
Pension funds	21.1	27.6	61.0	59.1	61.3
Investment companies[1]	14.8	22.6	46.1	50.8	59.1
Hedge funds	0.1	0.4	1.8	3.9	4.7

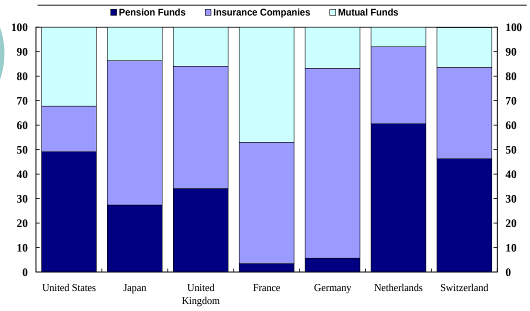
Sources: International Financial Services, London; OECD; and IMF staff estimates.

[1]Investment companies include closed-end and managed investment companies, mutual funds and unit investment trusts.

[2]Total GDP of OECD countries.

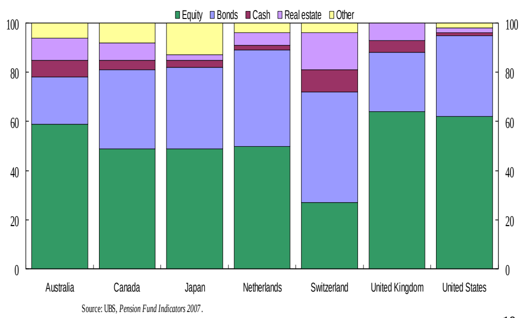
Sources of Global Assets Under Management, 2006

(In percent of total assets under managements)



Source: International Financial Services, London.

Asset Allocation of Pension Funds (in percent of total assets, 2006)



Changes in pension fund risk management

- 2000-2002: the "perfect storm"
  - PFs worldwide became significantly underfunded (equity prices and long-term interest rates)
- A wake up call for PF risk managers
  - Regulatory policies (e.g., "straight jacket" vs risk-based)
  - Taxation (impact primarily on quality of savings)
  - Accounting (FVA, P&L volatility and PF behavior)
  - Overall, much greater focus on ALM
- Towards stronger risk management and asset allocation
  - Beyond "equity vs bond": diversification (asset classes, countries)
  - Growing interest in alternative asset classes (commodities, hedge funds, …)

PF holdings compared with the size of domestic markets

(in percent, 2006)

	Equities[1]		Bonds[2]	
	Domestic	International	Domestic	International
Japan	6.6	3.8	2.6	1.5
Netherlands	8.8	54.2	5.9	40.3
Switzerland	4.6	5.7	70.3	22.8
United Kingdom	16.2	16.2	32.7	4.7
United States	22.9	7.9	13.8	0.4

Sources: OECD Institutional Investors Yearbook; BIS; Bank of Japan, Flow of Funds; World Federation of Exchanges;Datastream; UBS Global Asset Management; and IMF staff estimates.

[1]Holdings of equities as a percentage of total domestic market capitalization.
[2]Holdings of securities over one year in maturity as a percentage of total public and private domestic debt securities outstanding.

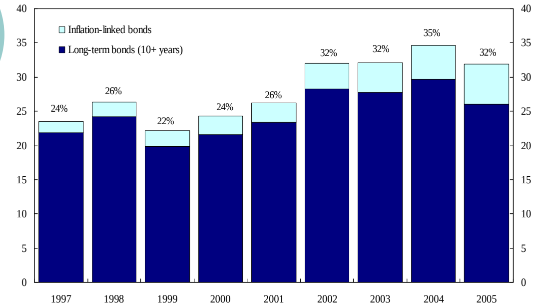
PF asset allocation and capital markets

- Literature inconclusive on "asset price meltdown" scenario…
- … but impact already material (e.g., the long-term yield "conundrum")
- An abrupt asset reallocation would have significant impact on financial markets and asset prices
  - In the US, reduction in equity prices of up to 15 percent, or flattening of the government bond yield curve of up to 150 bp
- However, such a shift seems unlikely
  - Slow asset allocation process (only at the margin?)
  - Reluctance of PF managers to "fully match"
  - Toward more complex risk and portfolio management
- A stabilizing force for financial markets?
  - Support capital market development in many EM countries
  - PFs as liquidity sellers in the current credit turmoil?

The need for more instruments/markets

- At present, relatively short supply of
  - LT bonds (>20 years)
  - Inflation-indexed bonds
  - Derivatives (long term inflation and interest rate swaps)
  - Even a relatively modest reallocation of pension assets into these markets would overwhelm them
- New instruments/markets
  - Longevity bonds
  - "Macro-swaps" (e.g., PF and health care industries swapping their exposures to longevity)
  - Housing indices and markets (saving and hedging)

Global Long-Term and Inflation-Linked Bond Markets
(in percent of global pension fund assets)

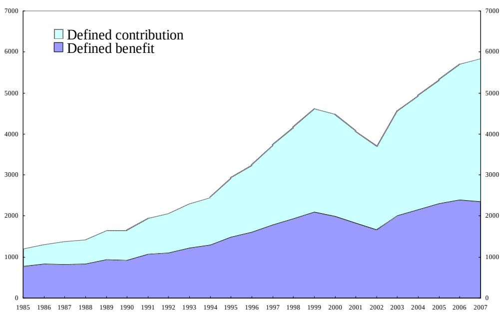


Sources: Merrill Lynch; Barclays; Watson Wyatt; OECD; IFSL; and IMF staff estimates.

Household sector

- Changing household risk profile
  - Reduced public pension benefits
  - Flow of risk in the financial system
  - Future reductions in healthcare benefits
- Household risk management capacity part of financial stability
- Households need to manage larger and more complex risks, but:
  - Surveys show a substantial lack of knowledge of households' own arrangements for retirement savings
  - They generally do not take a comprehensive, strategic approach to long-term savings
  - They are slow to adjust their asset allocation as needed
  - They underestimate required level of savings and risks (long-term investment underperformance a key risk?)

United States: Assets Under Management of Private Pension Schemes (in billions of U.S. dollars)



Need for more retail products

- A sufficiently broad range of saving, investment, and payout products are needed to enable households to appropriately diversify and manage their long-term financial challenges
  - Life-cycle products
  - Structured products (e.g., capital and performance guarantees)
  - Mutual funds (lower cost funds allowing diversification benefits)
  - Annuities (under-utilized although longevity risk may be greatest retirement risk)
  - Home equity withdrawal (housing a major share of household assets; reverse mortgages as annuity-like income stream)

Going forward—New risk transfer markets

- Need to promote market solutions to manage and transfer ageing-related risks
- Using financial innovations and techniques developed in the banking sector to measure, manage and transfer risks
- Lessons from recent experience in developing of insurance risk management tools
  - Capability to define, isolate, and measure risk exposures precisely
  - Ability to model and project the evolution of risk
  - Ability to mitigate moral hazard in the reporting of risk events and data construction
  - Regulatory and rating agency recognition of risk mitigation strategies and techniques
  - Structuring of risks to meet global investor requirements

Obstacles to long term risk transfer

- Instruments to manage such risks have proven difficult to develop
  - A very small fraction of the underlying exposure is transferred in the capital markets (e.g., through life insurance securitization)
  - "Peak mortality" exposures primarily related to pandemic-type risks ("mortality bonds" akin to catastrophe risk)
- Legal uncertainties
  - Public sector pension and health care benefits are often not legally-binding commitments
  - Subject to changes by subsequent legislation (e.g., degree of indexation, eligibility criteria...)
- General lack of familiarity with insurance-type risks
  - More difficult to develop a broad and diverse investor base despite portfolio diversification benefits

Potential areas for policy action

- Clear and consistent regulatory framework and incentives
  - Capital relief, for example, greatly influences the ability to attract more capital and innovative solutions, as in the banking sector
  - Should insurers and pension funds be ultimate holders of risks?
  - Examples: Switzerland (insurance supervision), Netherlands (pension fund supervision)
- Data availability for risk management is critical
  - Reliable and sufficiently granular data are key to support pricing and trading of risk transfer instruments, develop risk assessment models, and construct benchmarks or indices
  - E.g., lack of quality data on mortality in higher age categories (e.g., 85 to 90+ years) increases the uncertainty associated with extreme longevity risk, resulting in higher capital requirements
  - Low cost method of supporting market-based solutions

Wrap up

- The implications of population ageing for financial markets receive greater attention
  - Governments: pension and health care reforms are increasingly high on the policy agenda
  - Pension funds: the recent underfunding has triggered important regulatory reforms
  - Households: rising public awareness of new savings and investment needs
- Financial markets can play a key role
  - Portfolio diversification and improved long-term risk management
  - Promoting the development of new risk transfer markets
- No "one size fits all" solution
- Various approaches to risk sharing are complementary and sometimes mutually reinforcing (e.g., annuity markets)

ORGANISATION DE COOPÉRATION ET DE DÉVELOPPEMENT ÉCONOMIQUES

Suitable Investments for Financing Retirement Incomes: Developments Regarding Government Debt

APEC-IMF HIGH LEVEL SEMINAR "AGEING AND FINANCIAL MARKETS"

Seoul, May 21-23, 2008

Sebastian Schich
Principal Economist
OECD Financial Affairs Division

1

Motivation

What prevents financial institutions from offering (deferred) annuities?

Mismatch between the asset and the liability sides of the balance sheets of institutions with such liabilities, exposing them to interest rate, inflation and longevity risks.

Current presentation focuses on interest rate risk.

2

Overview

Financial market developments at the beginning of this decade and accounting and regulatory changes have put the spotlight on the important role of interest rate risk.

There is growing consensus that asset-liability matching by (defined benefit) pension funds implies a shift of asset allocations away from stocks and into bonds, especially to government bonds, given their limited credit risk.

Some argue that the shift is already happening, citing low yields on long-term government bonds.

But another possibility is that a shift into bonds has not happened because these instruments are too scarce.

3

Overview continued

This presentation illustrates that there could indeed be very significant "scarcity" of suitable investments for financing retirement incomes.

If there is scarcity in suitable investments for pension funds, should governments take any steps to respond?

The answer, at least from the perspective of debt managers, appears to be "No".

The question remains valid and relevant, however.

4

Sharper focus on asset-liability matching

Financial market developments between 2000 and 2002 highlighted the importance of the financial risks for (defined benefit) pension schemes.

Pension funds are increasingly replacing their traditional focus on producing an asset portfolio return defined in relation to a benchmark by attempts to better match assets with liabilities (ALM).

5

Suitable investments are in particular long-duration government bonds

There seems to be growing consensus that the sharper focus on ALM typically involves -- supply permitting -- a shift of pension fund assets away from equity to bonds.

Suitable investments would appear to be in particular long-term and ultra-long-term government bonds, given their limited credit risk and long duration.

6

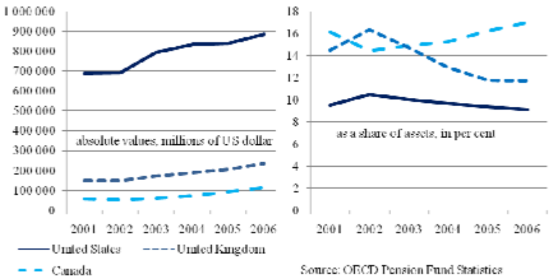
Has the shift in asset allocations already happened?

Before current turbulence, heightened demand from pension funds for long-term government bonds was regularly cited as one of several explanations for low levels of long-term interest rates.

Nonetheless, it is not clear whether pension fund asset allocations have already significantly changed in favour of a greater share of bonds across major OECD markets.

7

Pension fund investments in public bonds



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Selected developments regarding the supply of long-term and ultra-long-term government bonds

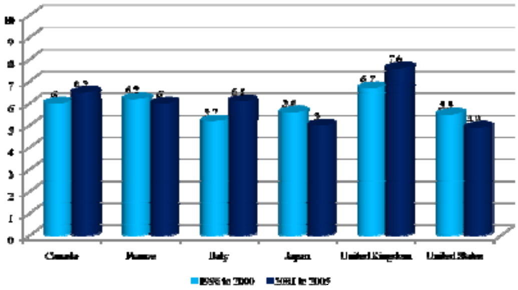
Governments in several OECD countries have started issuing or re-introducing the issuance of very long (20 to 30 years) and ultra-long (30 years and longer) bonds in recent years.

- **February 2005: 50-year nominal bond issued by France**
- **May 2005: 50-year gilt issued by United Kingdom (UK)**
- **September 2005: 50-year inflation-linked bond issued by UK**
- **February 2006: 30-year bonds re-issued by the United States**

As a result of these changes, more long-duration government securities have become available.

9

Change in average term of maturity of outstanding government debt



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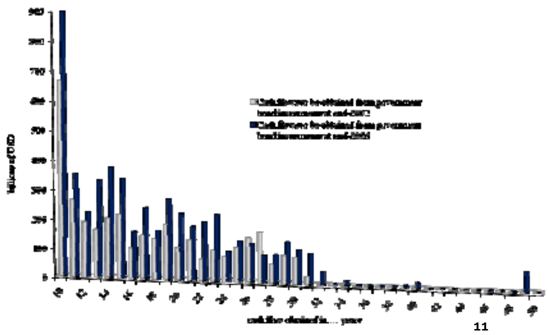
Cash flows from investments in G-10 government bonds



11

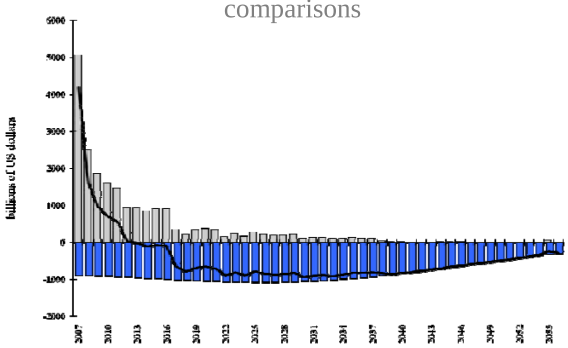
The hypothesis of "scarcity" of suitable investments

Pension fund managers may have difficulty implementing asset-liability matching because there are insufficient quantities of suitable assets (e.g. Group of Ten, 2005).

How scarce are high-quality government bonds?

12

A simple measure of "scarcity": Cash flow comparisons



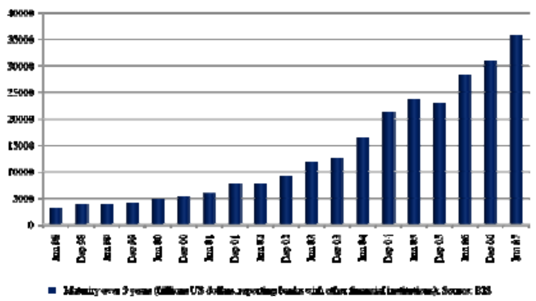
Public debt management considerations

If a scarcity emerges, what steps, if any, should governments take in response?

Should, for example, government debt managers shift the weight of their issuance toward the long-end of the maturity spectrum in order to help pension fund managers match assets and liabilities?

Thus far, this proposal has not received any support among debt managers.

Interest rate derivatives outstanding with maturities over 5 years



Some lessons from the Danish experience

Through the use of derivatives, pension institutions can achieve closer matching of projected revenue and payment patterns, thus reducing exposure to interest rate risk.

Such strategies can be costly to execute, however, and markets may not be as liquid as some commentators suggest.

Also, other risks arise, such as operational and credit risks.

Thus, there is a greater need for sound risk management practices on the part of pension funds.

Open issues

One question is to what extent is credit risk exposure acceptable for institutions providing retirement financing?

- High degree of pension benefit security is a major policy goal
- Financial turbulence has put spotlight on credit risk

Another question is whether or not governments may need to become more involved in devising investment solutions than would be consistent with the current (rather narrow) mandates of government debt managers?

- Mandates sufficiently general to allow governments to address risks related to pension income adequacy?
- Issue relevant in view of number of risks accumulating risks in medium to long term

17

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THANK YOU

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18

China's Pension System Reform and Development of Capital Market

Rui Ji

Asia-Pacific Finance and Development Center ,China

1

Outline

- ◆ Overview of China's Pension System Reform
- ◆ Current Status and Challenges of China's Pension System
- ◆ Future is Still Promising
- ◆ Further Measures

2

Overview of China's Pension System Reform

- Pension system during the planned economy period
- 1984-1993, social pooling system was implemented in China
- Since 1993, China engaged in building up a multi-pillar pension system which combined social pooling with individual account
  - –In 1997, constructed a unified urban pension system
  - –In 2005, parametric reform to make the system sustainable

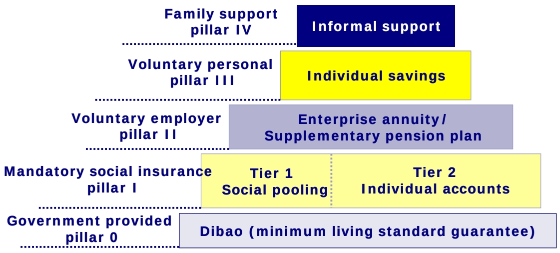
3

Government's Further Actions

- ◆ Set up the minimum living standard guarantee system
- ◆ Promote enterprise annuity
- ◆ Establish National Social Security Fund (NSSF)
- ◆ Gradually make individual account funded
- ◆ Promise to develop a social security system for both urban and rural residents

4

Current Status of China's Pension System



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Mandatory Social Insurance

- Social pooling
  - The enterprises are the main contributor
  - Generally pooled and managed at the provincial level
  - Pay-as-you-go system
  - Permissible investment are government securities and bank deposit
- Individual accounts
  - A part of the basic pension fund, accounts for 8% of the individual salary
  - The fund come from individual contributions
  - Managed by the government currently
  - The individual accounts in most regions are not funded (empty)

6

Enterprise Annuity (EA)

- Not mandatory in China
- EA fund is privately managed
- There is a restriction on investment

Asset categories	Limits
Liquid assets	≥20%
Fixed income	≤50%[1]
Equities[2]	≤30%[3]
Total	100%

1.At least 20% in government T-bonds
2.Include unit trust and insurance products
3.No more than 20% of assets in direct stock purchases

7

Rural Pension Program

- The rural people accounts for 70% of the whole population mainly depend on family support
- Most county-level programs initiated in 1990s unsuccessful
- New rural pension program commenced in 2006, featured by government contributions to the program
- Financial difficulties in poor counties, fiscal transfer from higher level government seems necessary

8

National Social Security Fund (NSSF)

- Act as the fund of last resort
- Injection from various sources
  - –Fiscal allocation from central government
  - –Capital and equity assets from reduction of SOE shares
  - –Funds transferred from MOF
  - –Other sources
- Can be invested for appreciation according to the regulation
- Promise to provide a minimum return guarantee of 3.5% per year over any five-year period

9

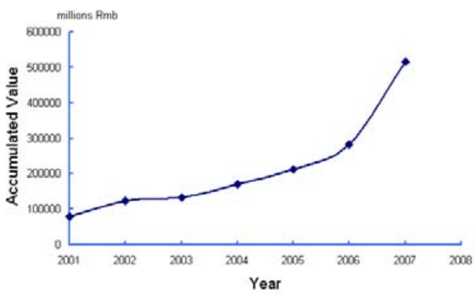
- NSSF's investments in the capital markets

Asset Categories	Bank deposit &T-bond [1/]	Enterprise bond	Equities[2/]	Total [3/]
Limits	>=50%	<=10%	<=40%[3/]	100%

1/ at least 10% in bank deposit
2/ includes stock and stock investment fund, no more than 5% in one stock
3/ fiscal allocation from central government limited to bank deposit &T-bond during initial period
4/ the regulation can be revised according to the situation change

10

- NSSF's size is expanding rapidly



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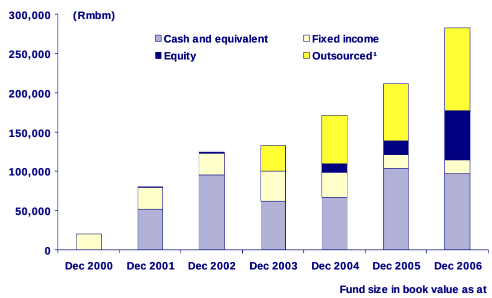
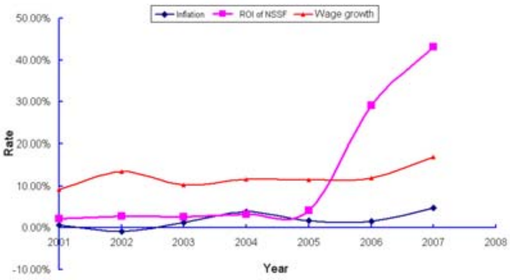
- NSSF's asset allocation



¹ includes domestic and international investments in fixed income and equities
Source: Sin(2007)

12

- Dramatic rise of return on investment



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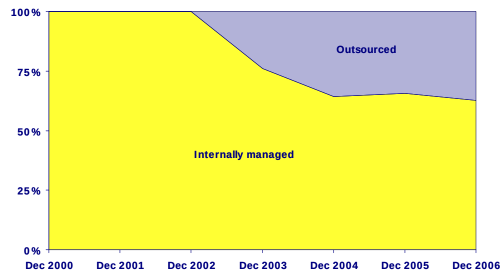
- Internal versus external



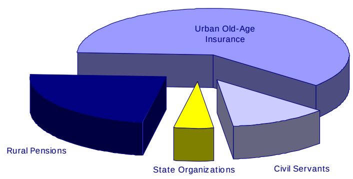
14

- New areas for investment
  - –Direct investment and equity investment
  - –Overseas investment
  - –Other areas
- The challenges faced by NSSF
  - –Public funds have often been constrained by mandates and restrictions
  - –Governing boards typically lack investment and other relevant professional competence
  - –Difficulty in retaining the few experienced staff and investment talents

15

The Challenges of China's Pension System(1)

- Low coverage, lack of diversity in pillar system



In 2006, China had 764 million workers; 233 million workers were covered by one of the four government sponsored pension schemes; 531 million workers had no pension coverage.

16

The Challenges of China's Pension System(2)

- Financial risks
  - –Serious population aging problem, increase demand for pension
  - –With the rise of salary and pension level, the pressure of pension provision is much bigger
  - –The transition cost is huge in pension system
- The challenges of the management
  - –Small risk pools, higher financial risks and management costs
  - –Dilemma faced by the Central government: "lack of vitality with tight control, and chaos with decentralization"

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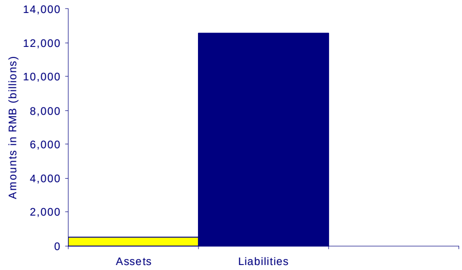
Financial Risks



Source: Extrapolated from Sin (2005)

18

Future is Still Promising(1)

- Government has been paying great attention to social security system
- The macro economy and financial market of china is growing rapidly in a healthy way
  - – Rapid financial market growth in different dimension
  - – Financing structure is improved
  - – The step of innovation quickened and financial products and tools diversified
  - – Improved awareness of financial planning among common people and investor education
  - – Steady policy building and market operation mechanism improved
  - – Further opening up and more internationalized

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Future is Still Promising(2)

- Huge governmental and private reserves
  - – Enormous national savings
  - – Bulky state-owned assets
  - – Large scale foreign exchange reserve

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Further Measures(1)

- Postpone the compulsory retirement age
- Expand coverage of social pooling fund
- Fund individual account and make up for implicit pension debt by more financing channels
- Encourage enterprises to establish enterprise annuity
- Promote people to build individual retirement saving plan

AFDC 21

Further Measures(2)

- Improving macroeconomic and financial sector preconditions necessary for multi-pillar reform
- Strengthen operation and management of pension fund

AFDC 22

Thank You!

AFDC 23

Ageing issues and Insurance Products Development in Chinese Taipei

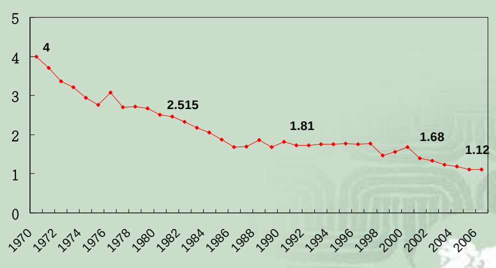
1

Outline

- Ageing Issues in Chinese Taipei
- Current Pension System in Chinese Taipei
- Potential Market Opportunities
- Challenges for Insurers Caused by Ageing Issues
- Product and Market Trends
- Policy Implications and Recommendations

2

Decreasing Total Fertility Rate



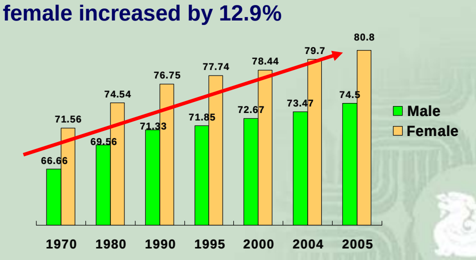
Note: *Total fertility rate* is the estimated average number of children a woman would bear in her lifetime at current age specific fertility rates

Source: http://www.ris.gov.tw/

3

Increasing Lifespan

- **For the last 35 years (1970~2005), the male life expectancy increased by 11% while the female increased by 12.9%**



Source: http://www.moi.gov.tw/stat/

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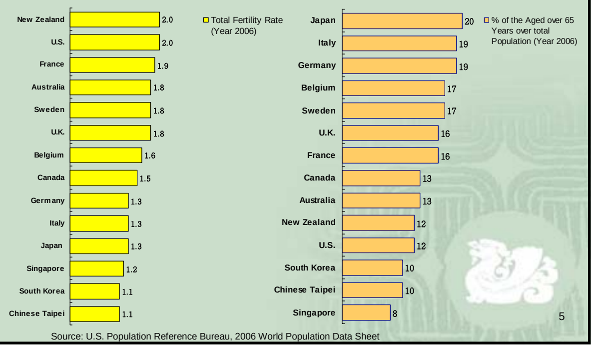
Low Fertility Rate Leads to Faster Pace of Population Ageing

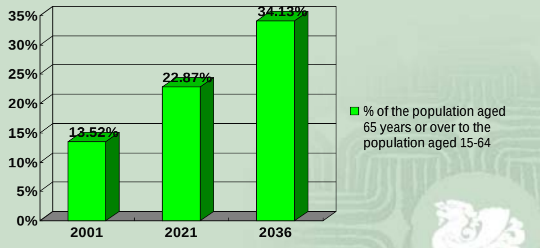


Source: U.S. Population Reference Bureau, 2006 World Population Data Sheet

5

Rising Old-Age Dependency Ratio

Impact: Future problem of social insurance pension fund insolvency



Source:http://www.moi.gov.tw/stat/

6

Current Pension System in Chinese Taipei

First Pillar: Old-Age Benefit of Social Insurance

1. Labor Insurance (LI)
2. Government Employees' and School Staffs' Insurance (GESSI)
3. National Annuity Pension Plan (will be scheduled to implement in 2008)

Second Pillar: Occupational/Employer Pension

1. Pension Provisions of Labor Standard Law (old scheme) (DB)
2. New Pension Scheme for Labor Workers (DC)
3. Public Service Pension Plan (DB)

Third Pillar: Private Retirement Savings Plan

1. **Commercial Insurance products**
2. Other financial products

7

□ □ □

A Quick Look at the Old Pension Scheme v.s. the New Pension Scheme for Labor Workers in Chinese Taipei

	Fund Ownership	Employer Contribution	Employee Contribution	Type of Plan
Old Pension Scheme	Government Owned	Employer's choice of contribution from 2% to 15% of employee's salary	No employee's contribution	Defined Benefit
New Pension Scheme	Employee Owned	Mandatory Employer Contribution at least 6% of employee's salary	Voluntary contribution up to 6% of monthly salary	Defined Contribution

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Retirement Replacement Ratio of Labor Workers Remains Relatively Low

Replacement Rate= average pension income / average wage at retirement

Civil Service Employee	Employer pension	Lump-sum payment	Male	24.6
			Female	23.0
		Annuity	Male	71.4
			Female	72.0
	Social insurance		Male	19.7
			Female	18.4
Labor Worker	Employer pension		Male	24.6
			Female	23.0
	Social insurance		Male	24.6
			Female	23.0

Note: Replacement Rate= average pension income / average salary at retirement
Assumed Interest rate =4%
Source: Jennifer Wang (2005), Analysis of Pension Replacement Ratio in Taiwan

9

Potential Market Opportunities

Demand Side	Supply Side (private sector)
Ageing population shift consumer focus to retirement planning	Annuities, pension and wealth management service
Greater health costs and loss of ability to live independently	Medical Insurance and long-term care insurance
Needs for growth and security	Annuities, pension and other financial products

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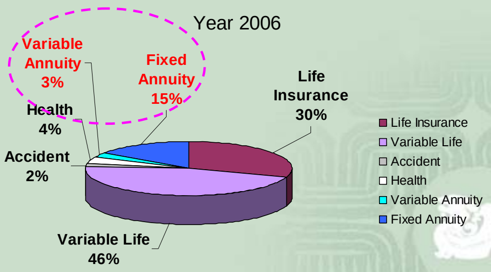
Awareness for Annuity Has Not Been Prevalent in Chinese Taipei

Market Share of First Year Premium



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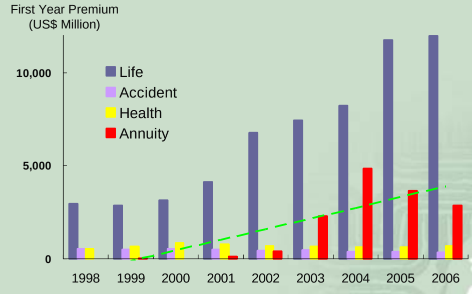
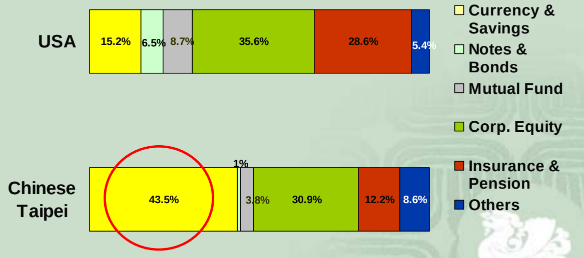
Rising Demands for the Annuity



Source: http://www.tii.org.tw

12

Assets Allocation of Families in US and Chinese Taipei in 2003



Source: Central Bank of the Republic of China

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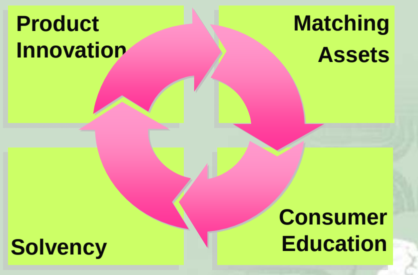
Challenges to Insurers Caused by the Ageing Issues

- Product pricing problems
- Asset and liability matching issues: lack of long-term investment vehicles in the financial market
- Impacts on solvency for insurers
- Complexity of Insurance products and consumers' lack of understanding
- Less tax incentives for insurance products

14

Policy Implications and Recommendations



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Policy Implications and Recommendations

- Encourage product Innovation and development
- Enhance insurance companies' asset liability management efficiency
- Strengthen solvency requirements for insurance companies
- Promote product information disclosure and consumer Education

16

Encourage Product Innovation and Development

Implementation Measures

- Promotion of annuity insurance and long-term care insurance
- Reforms on the product review process
  - Significantly reducing the scope of insurance products that are subject to approval system
  - Setting the specific deadline of product reviewing
  - Strengthening the internal control mechanism for product development and management within insurance companies
  - Putting more responsibilities on insurers and professionals
  - Enhancing consumers protection
- Provide protection period for innovative insurance products
- Consult with the Ministry of Finance to provide more tax-incentives for insurance products

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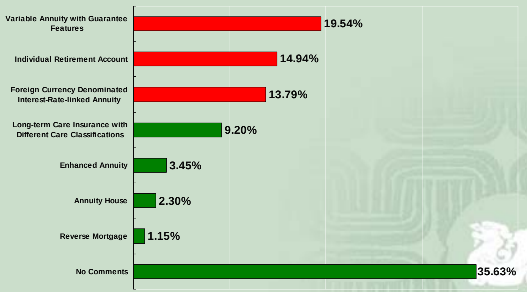
Potential Insurance Products for Better Old-age Protection

Existing product types

- Group Annuity Products for New Pension Scheme
- Variable Annuities with Guarantee Features (GMDB, GMWB, GMIB…)
- Interest-rate-linked Annuities
- Guaranteed Issue Life Insurance Products
- Long-term Care Insurance

18

About 20% of our Life Insurers Want to Develop "VA with guarantee features"



Source:A survey of 29 life insurance companies conducted by Insurance Bureau, FSC, Taiwan.

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Enhance Insurers' Asset Liability Management Efficiency

Implementation Measures

- Relax the limits on overseas investment of insurers to enhance fund management efficiency.
- Allow insurers to operate discretionary investment business.
- Allow insurers to introduce foreign-currency denominated traditional life insurance.
- Strengthen risk management of derivative investments to enhance hedging benefits and investment returns

20

Strengthen Solvency Requirements for Insurance Companies

Implementation Measures

- Plan to explore adopting Solvency II to enhance the solvency standards
- Set up a taskforce to research on performing cash flow testing in reserve adequacy regime to better ensure solvency of insurance companies.
- Strengthen the accountability and independence of appointed actuary system.

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Promote Product Information Disclosure and Consumer Education

Implementation Measures

- Strengthen product information disclosure
- Promoting insurance literacy programs
- Establishing insurance product information database
- Integrating media, NGOs and volunteers to promote insurance literacy

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THANK YOU！

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