

Challenges of Longevity Risk to Pension Systems and Financial Markets in Taiwan

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Outline

- Changing population structure
- Impacts of demographic ageing on pension systems
- Impacts of demographic ageing on financial markets
- Solutions and future developments



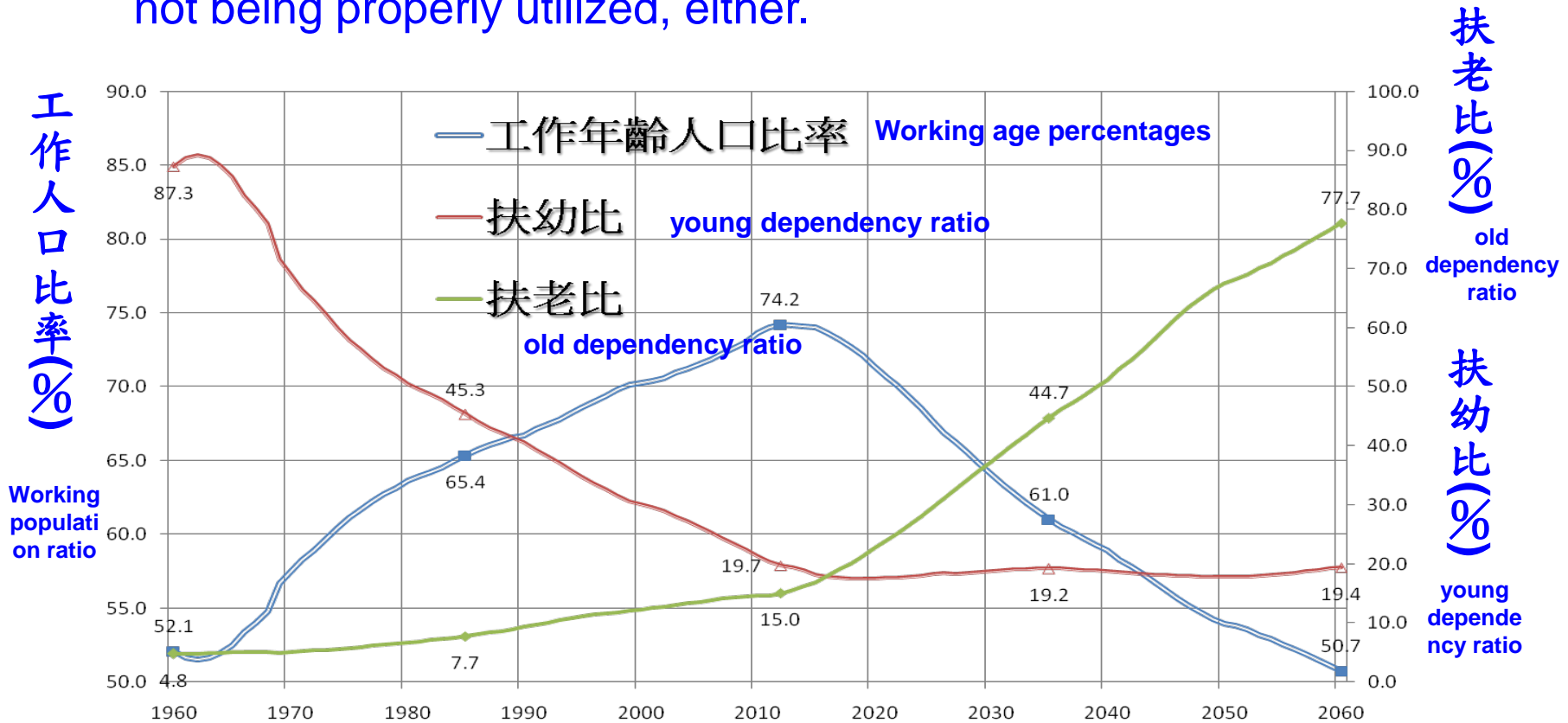
Taiwan's changing population structure

- ❑ According to statistics from Taiwan's Ministry of the Interior, seniors accounted for 9.74 percent of the total population in 2005. This figure is expected to rise to 20% in 2031, and 38% in 2050.
- ❑ Taiwan's fertility rate has dropped from 4.1% in 1971 to 1% in 2011. Taiwan currently has the lowest fertility rate in the world.
- ❑ The Council for Economic Planning and Development expects Taiwan's population to begin declining in 2022.
- ❑ By 2030, every 2.7 working persons will have to support one elderly person, which is triple the burden of working persons today.



Working age percentages, child dependency ratios, aged dependency ratios

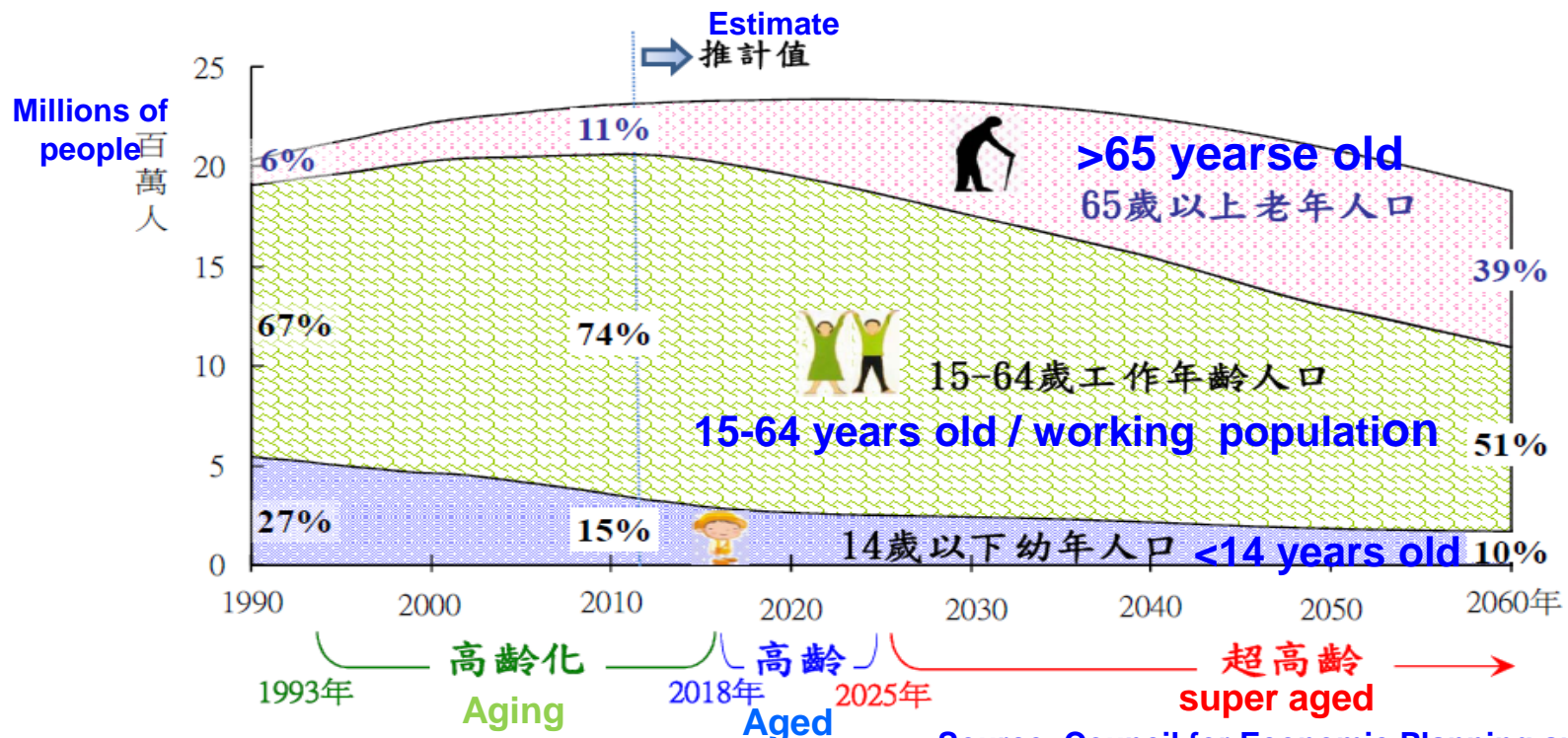
- With people delaying marriage and childbirth, Taiwan has too few births and a rising elderly population, while the working age population continues to fall. Middle-aged persons and women are not being properly utilized, either.





Taiwan becomes an ageing society

- ❑ An **ageing** society is where persons aged 65+ make up **7%** of the total population. For **aged** societies and **superaged** societies, the figures are **14%** and **20%**.
- ❑ Taiwan became an ageing society in **1993**. It is expected to become an aged society in **2018** and a superaged society in **2025**.

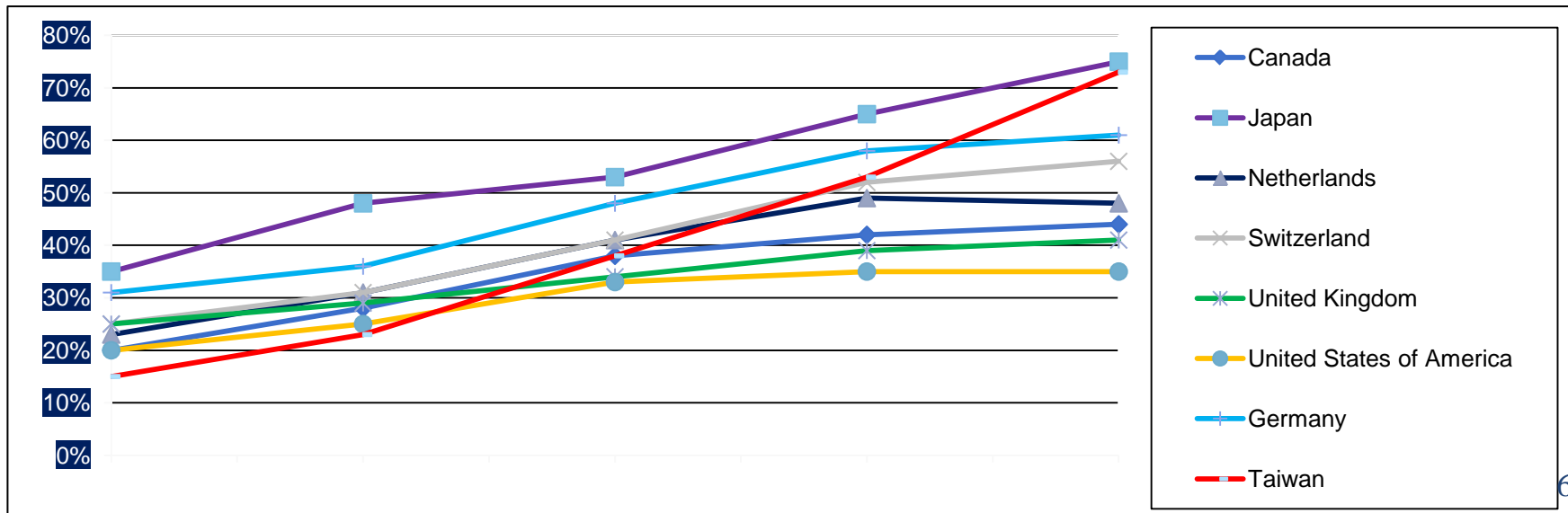


Source: Council for Economic Planning and Development



Dependency ratios in selected countries

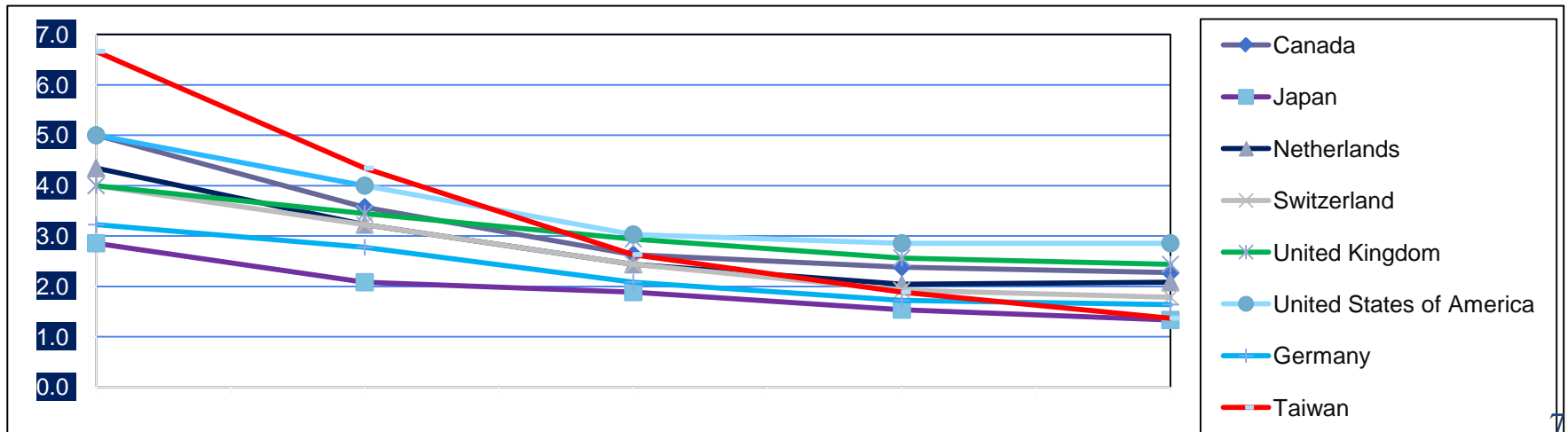
Year	2010	2020	2030	2040	2050
加拿大 Canada	20%	28%	38%	42%	44%
日本 Japan	35%	48%	53%	65%	75%
荷蘭 Netherlands	23%	31%	41%	49%	48%
瑞士 Switzerland	25%	31%	41%	52%	56%
英國 UK	25%	29%	34%	39%	41%
美國 USA	20%	25%	33%	35%	35%
德國 Germany	31%	36%	48%	58%	61%
台灣 Taiwan	15%	23%	38%	53%	73%





No. of young persons per dependent elder

年份	2010	2020	2030	2040	2050
加拿大 Canada	5.0	3.6	2.6	2.4	2.3
日本 Japan	2.9	2.1	1.9	1.5	1.3
荷蘭 Netherlands	4.3	3.2	2.4	2.0	2.1
瑞士 Switzerland	4.0	3.2	2.4	1.9	1.8
英國 UK	4.0	3.4	2.9	2.6	2.4
美國 USA	5.0	4.0	3.0	2.9	2.9
德國 Germany	3.2	2.8	2.1	1.7	1.6
台灣 Taiwan	6.7	4.3	2.6	1.9	1.4





Impact of demographic ageing on Taiwanese society

Longer life

- The average lifespan in Taiwan increases by an average of 0.13 years annually.

Higher medical costs

- Average annual medical expenses for the elderly in Taiwan (NT\$80,000-100,000) are triple the national average.

Higher dependency ratios

- Dependency ratios in Taiwan are rising steadily, placing an increasingly heavy burden on the young.

Greater need for long-term care

- Disabled population rising by 20% per year. Long-term care will become increasingly important.



Funding shortfalls in Taiwan's social insurance funds

項目	破產預估年限
勞保	116 年
健保	目前二代健保僅能確保未來 2~3 年不會破產
軍職人員退撫基金	107 年
教育人員退撫基金	116 年
公務人員退撫基金	118 年

Sources:

1. 2012 Labor Insurance Actuarial Estimates of Premium Rates for Ordinary Insured Events, and Financial Evaluation Report (in Chinese)
2. Actuarial estimates by Mercer Consulting (contract by the Public Service Pension Fund Management Board)

Item	Year of expected insolvency
Labor Insurance	2027
National Health Insurance	2nd-generation National Health Insurance system insures solvency for next 2-3 years.
Military category of the Public Service Pension Fund	2018
Education category of the Public Service Pension Fund	2027
Public Service Pension Fund	2029



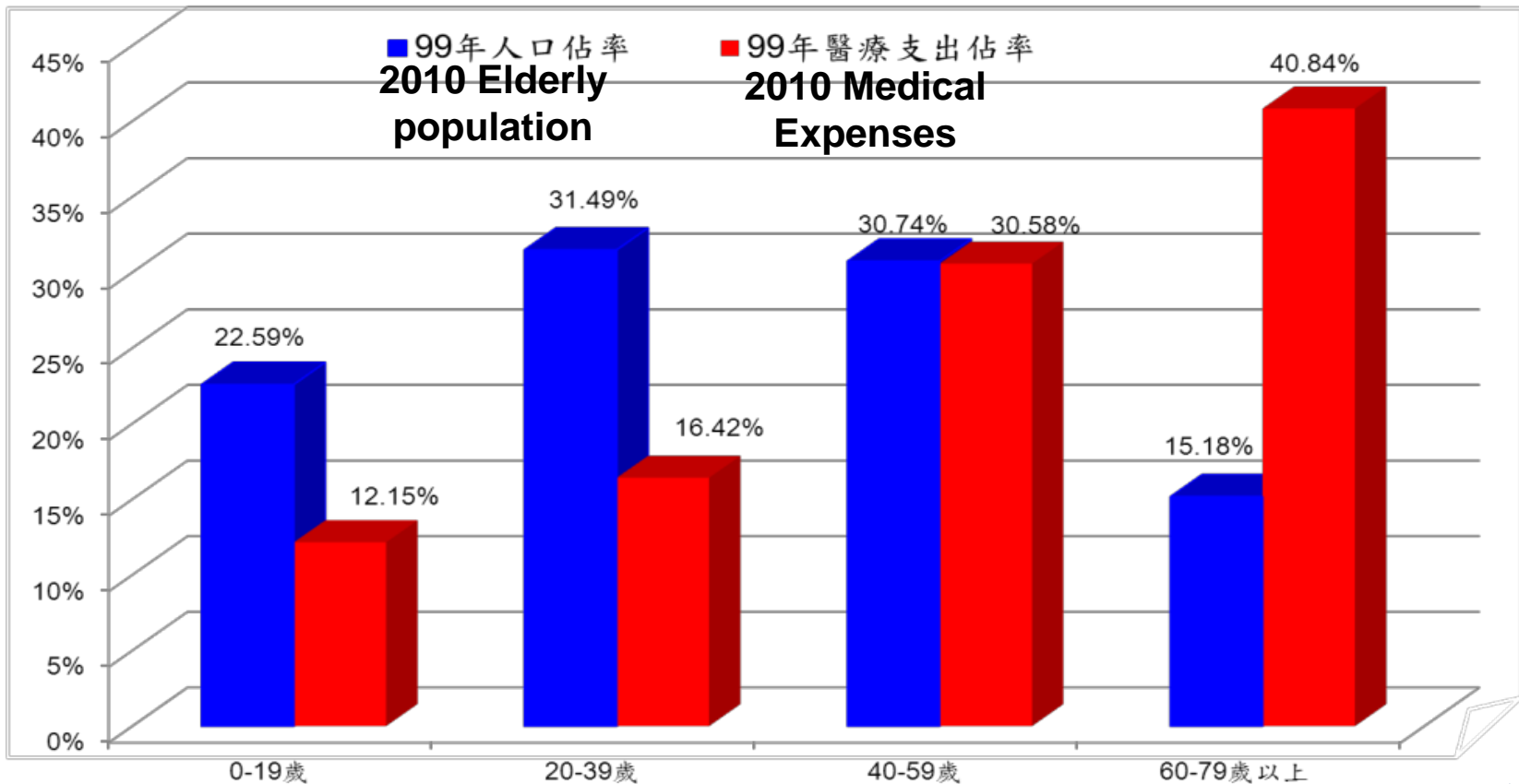
Taiwan establishes "Annuity System Reform Taskforce"

- ❑ Taiwan's Cabinet responded by establishing the Annuity System Reform Taskforce in October 2012.
- ❑ Discussions have focused on following topics: lower social insurance replacement rates, increase insurance premium, increase pension fund investments return, and encourage insurance products `ns retirement savings.
- ❑ National health insurance has been established in 1995 but did not provide enough long-term care protections.
- ❑ Long-term care social insurance will be implemented within 3 years.
- ❑ Government bear most of the longevity risk.



National Health Insurance

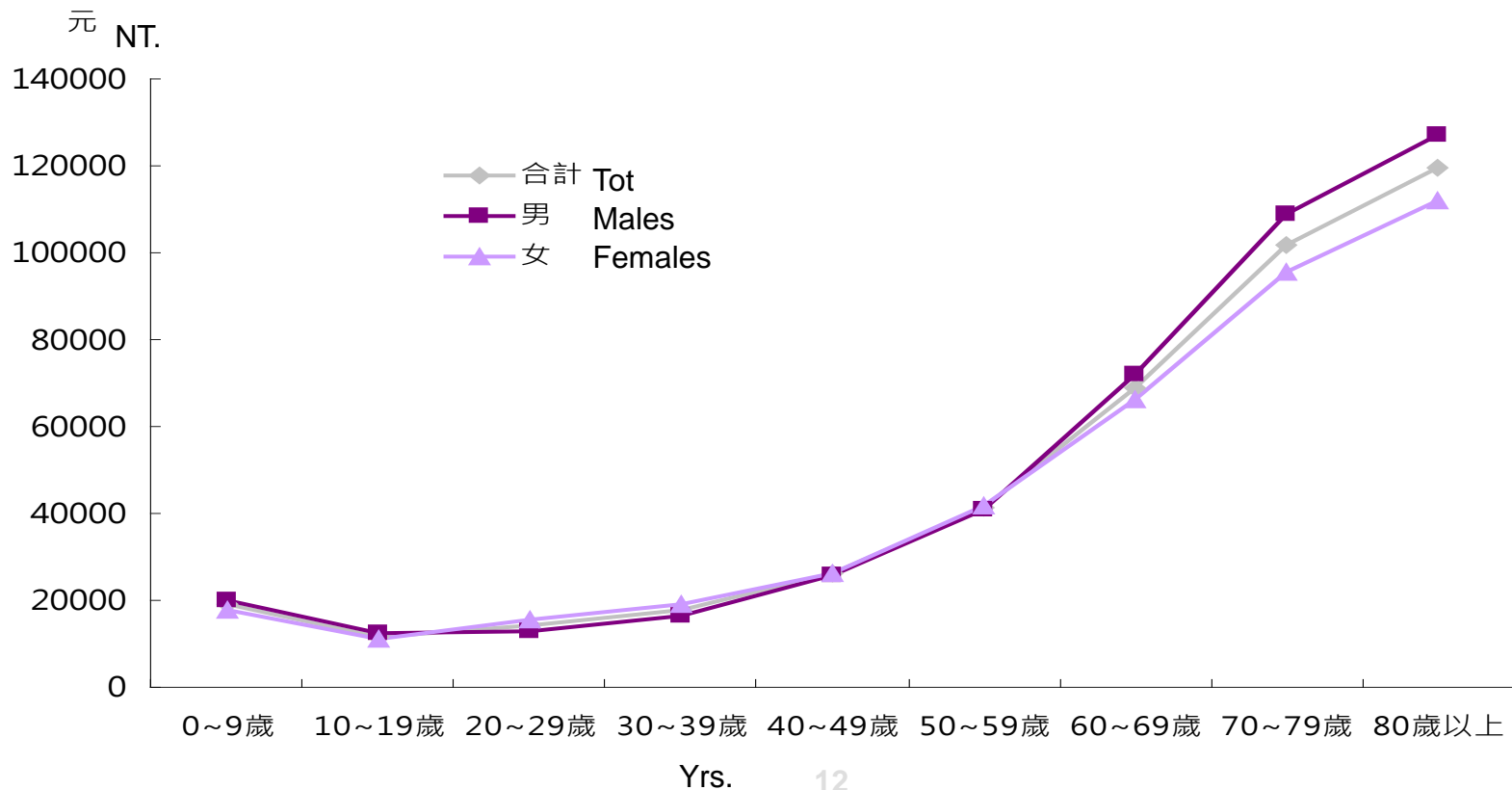
- Elderly cohort is small in 2010, but accounts for largest share of medical expenses.





Avg. per capita medical expenses in Taiwan

- Avg. per capita medical expenses for persons aged 60+ are roughly NT\$70,000 to NT\$120,000
- Medical expenses for the elderly are 3-4 times those of other people.





Impact of demographic ageing on financial markets

- **Impact on labor markets and financial markets**
 - Falling fertility will cause future labor shortages, which will reduce production and GDP. Declining wages and a falling savings rate will mean insufficient savings for the elderly to meet the costs associated with longevity risks.
 - Demographic ageing will also affect the stability of financial markets. Government fiscal deficits will cause government bond interest rates to fall, and may even trigger financial troubles, leading to low interest rates and low investment returns.
 - The interest rate and long term bond yield have been very low in Taiwan.



Pension fund solutions and financial markets

- Taiwan has NT\$2.8 trillion in its social insurance and pension funds. We try to use this capital to spur stronger economic growth and financial market development.
- Defined-benefit pensions: we encourage pension funds to invest in domestic infrastructure projects and high-quality growth industries and enterprises (by creating corporate social responsibility and corporate governance index) order to effectively spur faster economic growth and bring about better investment returns.
- **Defined-contribution personal accounts: develop more DC investment scheme to enable high-quality financial institutions to engage in pension fund management business, and spur stronger financial market**



Development of insurance products

- ❑ Total life insurance premium income in Taiwan in 2012 came to approx. NT\$2.48 trillion, which breaks down as follows: life insurance (77.97%); health insurance (10.97%), personal injury insurance (2.37%); annuities (8.69%).
- ❑ Annuities currently account for less than 10% of total life insurance premium income in Taiwan.
- ❑ Total long-term care insurance premium income in 2012 only account for 0.41% of total life insurance premium income.
- ❑ The Financial Supervisory Commission and with the Ministry of Finance have established a Joint Task Force on Financial Sector Taxation to devise suitable tax incentives to encourage consumers to make use of commercial insurance to plan for retirement.



Encouraging insurers to invest in long-term care infrastructure and services

- ❑ We encourage insurers to invest in domestic infrastructure projects to effectively spur faster economic growth and bring about better investment returns.
- ❑ The Financial Supervisory Commission in January 2013 amended the regulation to ease restrictions on investments by insurers to social services industries. This measure was taken to increase the supply of long-term care services and improve the social safety net.
- ❑ How insurers can invest:
 - Long-term care industry: we allow insurers to invest in long-term care industry, and to use such investments to support development of their long-term care insurance products.
 - Long-term care infrastructure: Insurers can invest in the infrastructure (including both physical facilities and systems) needed by long-term care industry, and can lease such infrastructure to long-term care institutions.



Innovative products for an ageing society

Recently new insurance products in the market

- ❑ Foreign currency interest-sensitive annuities
- ❑ Variable annuities with guaranteed benefits
- ❑ Enhanced annuities
- ❑ Variable-benefit long-term care products
- ❑ Reverse mortgages

Encourage Longevity Hedging for life insurance companies

- ❑ Development annuity table
- ❑ Internal longevity risk management system
- ❑ Longevity bond
- ❑ Life settlement related security product
- ❑ Longevity swaps and forward contracts



Cross-strait collaboration and longevity risks

- ❑ Investing in China's insurance market could yield higher returns, which in turn would help mitigate the negative margins faced by Taiwanese insurers.
- ❑ Invest RMB bonds and Chinese equity markets can enable Taiwanese life insurers to improve asset management performance and achieve higher investment returns.
- ❑ We encourage more cross-strait joint venture investment between finance institutions so they can help with the resolution of troubled insurance companies.
- ❑ We allow investment-linked insurance policies to link to RMB-denominated investment products.
- ❑ We encourage life insurers Taiwan to underwrite Chinese corporate annuities, medical insurance for the elderly, microinsurance products.



Conclusion

The most important objective of reform is to improve Taiwan's population structure and enhance the financial market investment environment.

We improved investment efficiency and required more internal risk management controls on both interest rate risk and longevity risk for government pension funds and life insurance companies.

Gov pension funds and insurance capital will invest toward public infrastructure projects, longutern care industry and high-quality enterprises to help spur Taiwan's economics.



Conclusion

We will establish a platform for incorporating more investment products into defined-contribution pension plan in order to spur domestic financial and insurance markets.

We will stress the importance of personal retirement planning and commercial insurance, and will raise public awareness of the need to plan for retirement and purchase insurance protection.





***Thank you for
your attention!***

