Designing Fiscally Sustainable and Equitable Pension Systems in China

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An overview of China's pension system

- Today there are three major social pension programs in China:
  - The pension programs for urban workers and staff (PUWS);
  - The pension program for rural residents (RP), and;
  - The pension program for urban (non-employed) residents (PUR);
  - The last two are quite new in China, while the first one has been evolved from the old program in the planned era.

- Prior to China’s economic reforms in late 1970s, there were two forms of pension programs:
- The labor insurance program for employees of state-owned enterprises (SOE’s) and urban collective enterprises; and
- The public pension for the employees of government and the public institutions (such as public universities and public research institutions).

- In rural areas although there was CMS (collective medical scheme) supported by the rural communes, there were no former pension programs. Children (especially sons) and other family members were the major sources of old-age security for the elderly.
- There were some limited old-age support programs administered by the civil affairs bureaus in urban areas, and some rural programs (such as “five guarantee” program) funded by both rural collectives and the township/country governments.

- China’s transition from a planned to market economy had shaken the foundations of enterprise-based labor insurance pension program.
- During the reform, many SOE’s were bankrupt or acquired by private/foreign investments. The large-scale SOE layoffs also called for new program to provide pension benefits for those laid-off workers when reaching retirement age.

- In addition, some old enterprises had much heavier burden to support there retired workers/staff compared to those newly established younger enterprises. All those changes necessitated the institution of new pension programs based on social pooling rather than individual enterprises.

Social pooling at the locality level

- The State Council decreed three important documents providing the guideline and the framework for the new pension system.
- Following the central guideline, the cities/counties all over the country instituted the new urban pension program featured by "the combination of social pooling with personal saving accounts."
- The new program gradually extended its coverage from employees of SOEs and rural collective enterprises to enterprises of other ownership, employment in the informal sector and self-employed.

- Prior to the reform, rural families were the primary sources of old-age support, with rural collectives providing some relief programs for the needed households/individuals including the elderly.
- The government efforts to initiate some rural pension program funded at the township or county levels in early 1990s failed in most places, due to the inadequate funding, poor management and low participation rate of rural households.

- The central government re-initiated rural pension programs in 2009. In the new program the central and local governments play a major role in the financing of the program, in addition to the rural households and other available resources.
- The most recent program is the pension program for urban residents who do not participate in the labor market.
- However, most government civil workers and employees of public institution continue to receive their retirement benefits from various levels of governments after retirement.

2. The development of PUWS

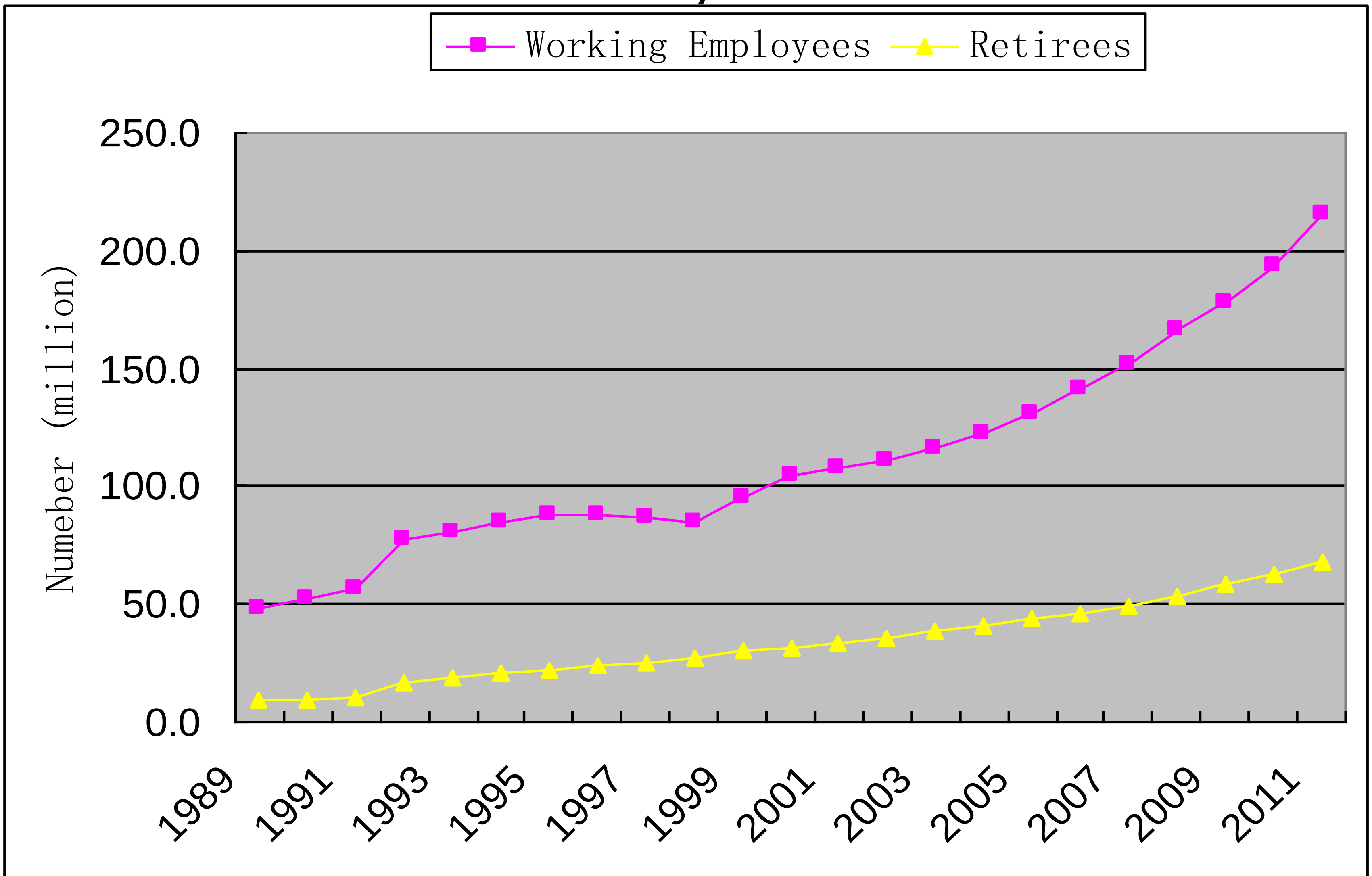
- This compulsory pension program covers the former employment of urban enterprises of various ownership, and to a less degree, the employment of urban informal sectors and peasant workers.
- The program is funded and managed by the local (city of county-level) governments. The pension funds consist of two parts: 1) the social pooling account funded by the employers' contributions (20% of the total payrolls); 2) the personal saving accounts funded by the individual employees' contributions (8 percent of individual salaries).

- To avoid financial risks involved in the investment of pension funds by the local governments, the Central government mandates that all the funds be deposited in the state commercial banks or invested in the government bonds. Consequently, the pension funds are financially safe at the prices of receiving very low returns. In some years of higher inflation the real returns were even negative.

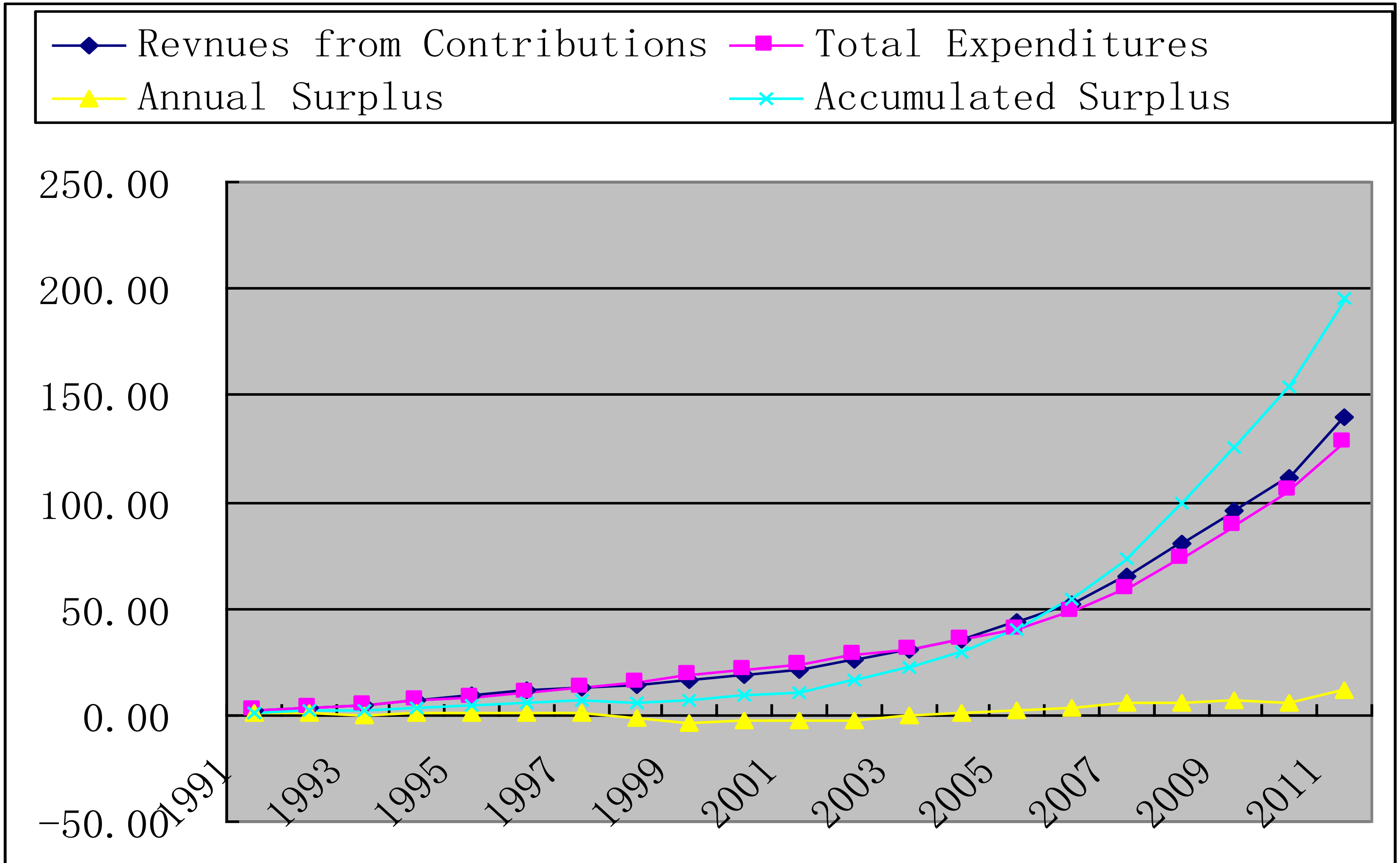
The pension benefits

- The social pooling account provides retirees with pension benefits of 20 percent replacement; the personal saving accounts can provide individual employees with benefits equal to total amount of funds in the account divided by 139.
- The new rules apply only to those who started to work after 1994 (the “new persons”),
- For those retired before 1994 (the “old persons”), they continue to receive pension benefits based on the old system.
- For those who started their job before 1994 but retire after the year (the “mid-aged persons”) will receive benefits in compromise between the old and the new rules.

Number of working employees and retirees, PUWS



Revenues and Expenditures of PUWS, 1991-2011



- **By the end of 2011, the program covered a total of 283.91 million, among which 215.65 million were working employees (including 41.40 million peasant workers) and 68.26 m were retirees. The total revenues of the pension funds amounted to Y1689.5 billion, of which contributions form both employers and employees amounted to Y1395.6 billion, fiscal subsidies from various levels of governments totaled Y227.2 billion. The total expenditures in 2011 were Y1276.5billion, with a total accumulated surplus of Y1949.7 billion.**

- The above somewhat balanced data may cloud the fact of inter-provincial/locality disparities.
- In 2011, of the 32 provincial administration units, 14 were in deficits were there no fiscal subsidies. Their deficits amounted to Y76.7 billion.

Rural pension program

- First initiated in 1992, financed by contributions from individuals with subsidies from rural collectives. The program in most localities failed due to difficulties in financing and poor management of the funds, the low participation rate of rural households.

- A new rural pension program was initiated in 2009. This program was funded by three sources of households, collectives and the government. The participants can choose annual contribution among Y100, Y200, Y300, Y400 and Y500. Local government subsidizes each participant's contribution for at least Y30 per annum. Other organizations are encouraged to provide funding to the program too.

- When a participant retires, he/she can receive a government subsidy of Y55/month (or Y660/year). In addition, from his/her own personal account he/she can receive monthly pension benefits equal to the total amount of funds upon retirement divided by 139.

- By the end of 2011, the new rural pension programs were initiated in 31 provincial administrative units, with participants of 326.43 million, among which 85.25 million were recipients of pension benefits. The total revenues of the rural pension programs amounted to Y107.0 billion, of which Y41.5 billion were from rural households' contributions. The total expenditures amounted to Y58.8 billion. The total surplus were Y119.9 billion.

- Pension program for urban non-employed residents started with pilots in some cities in 2007, gradually expanded to cover all urban non-employed residents by 2010. the structure of the program is quite similar to the rural pension program, while the participants can choose one among Y100, Y200, Y300, …,Y900 and Y1000 to contribute annually. Local government subsidizes each participant’s contribution for at least Y30 per annum.

- When a participant retires, he/she can receive a government subsidy of Y55/month (or Y660/year). In addition, from his/her own personal account he/she can receive monthly pension benefits equal to the total amount of funds upon retirement divided by 139.

- By the end of 2011, the new rural pension programs were initiated in 31 provincial administrative units, with participants of 5.39 million, among which 2.35 million were recipients of pension benefits.
- The total revenues of the pension programs amounted to Y4.0 billion, of which Y600 million were from residents’ contributions.
- The total expenditures amounted to Y1.1 billion. The total surplus were Y3.2 billion.

- While the three social pension programs have made great progress in expanding their coverage to the majority of urban and rural households, they are facing new challenges in the more efficient, equitable and sustainable development in future.

2. Problems and challenges facing the pension programs in China

- 2.1 efficiency issues
  - The segmentation of the pension programs by localities and by social groups leads to the small pooling of pension funds, and hence high management costs and low management skills.
  - To avoid any financial risks arising from inappropriate investments, the Central government mandate all pension funds be deposited in state commercial banks or invested in government bonds, and hence receiving low returns.

- Furthermore, the segmentation or fragmentation of pension programs in China also presents barriers to the spatial and social mobility of labor, leading to inefficient labor market and “shallow” urbanization in China.

2.2 Equity issues

- Some studies find (e.g. Zhu Ling, 2010) that the redistribution function of social pension programs aggravated income inequality in the country.
- Two tiers of urban pensions: most government civil workers and employees of public institutions do not contribute to any pension program; in the meantime they receive more generous retirement benefits.

- By comparison, the employees of urban enterprises make compulsory contributions to the pension funds, however, their pension benefits are about only half of that of former.

- The portability problems. The peasant workers are required to contribute to urban pension programs, the “social insurance law” taking effect since July 1, 2011 further mandates that all peasant workers participate in the pension program for urban workers and staff. However, they are likely to lose their entitlement to pension benefits they change their jobs or move across locality boundaries.

- The present rural pension program is based on voluntary contributions. However, as most rural households chose to contribute Y100 per annum, they will accumulate a pension assets of Y4,000 over 40 years of working life, assuming a real return rate of zero. Upon retirement, they can receive from their personal account Y4000/139=Y28.80 per month or Y345 per year, which is far too tiny to provide meaningful support the elderly.

- As revealed by China Pension Report 2012, the migration of peasant workers from western and central regions to the coastal regions leads to flow of pension funds in the same direction. In 2010, the inter-provincial migration created pension revenues of Y52.56 billion for provinces of destination, averaging Y3424 per migrant participants in the urban pension program. Consequently, the eastern region gained pension revenues of Y32.37 billion from in-migration, and the central and western provinces lost, respectively, Y23.95 billion and Y8.41 billion.

2.3 Sustainability of Pension Programs

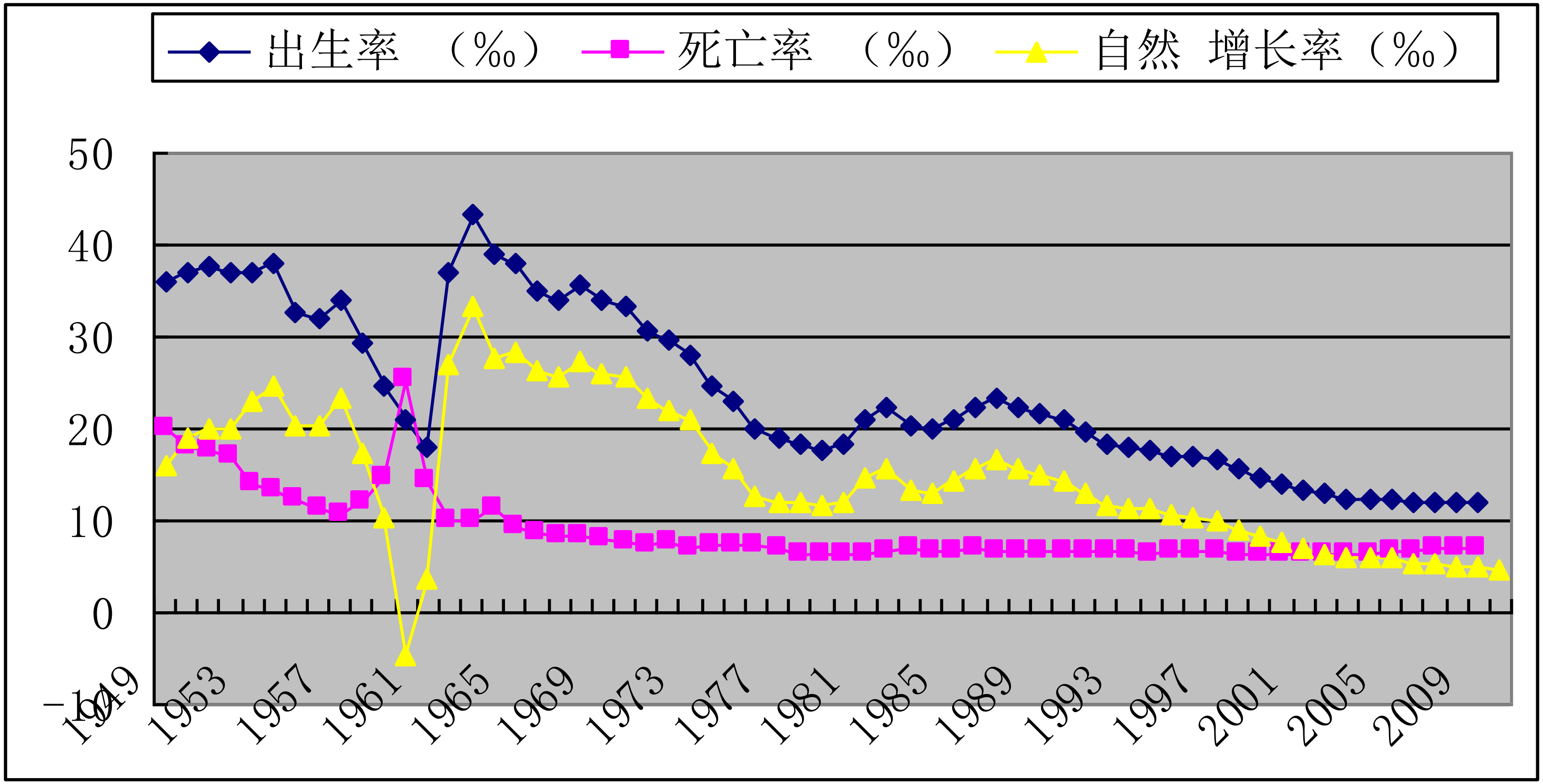
- The “empty personal saving account” as the pension for urban workers and staff is based on the “combination of social pooling with personal saving account” by design, in practice, however, nearly 90 percent of the funds in the personal saving accounts have been used for paying pension benefits, and hence leading to large scale “empty personal saving accounts.”

- At the end of 2011, the empty accounts totaled Y2.2 trillion, equal to nearly 90 percent of the total funds recorded in personal saving accounts, and equivalent to 114 percent of the total balance of the overall pension funds.

Recorded and Saved Funds in the Personal Saving Accounts, 2006-2011

Year	Re-corded	Actually Saved	Empty	Empty Accounts as %Recorded	Total Balance	Empty Accounts as %Total Balance
2006	9994				5489	
2007	11743	786	10957	93.3	7391	148.2
2008	13837	1100	12737	92.1	9931	128.3
2009	16557	1569	14988	90.5	12526	119.7
2010	19596	2039	17557	89.6	15365	114.3
2011	24859	2703	22156	89.1	19497	113.6

Growth, births and deaths, 1949-2010



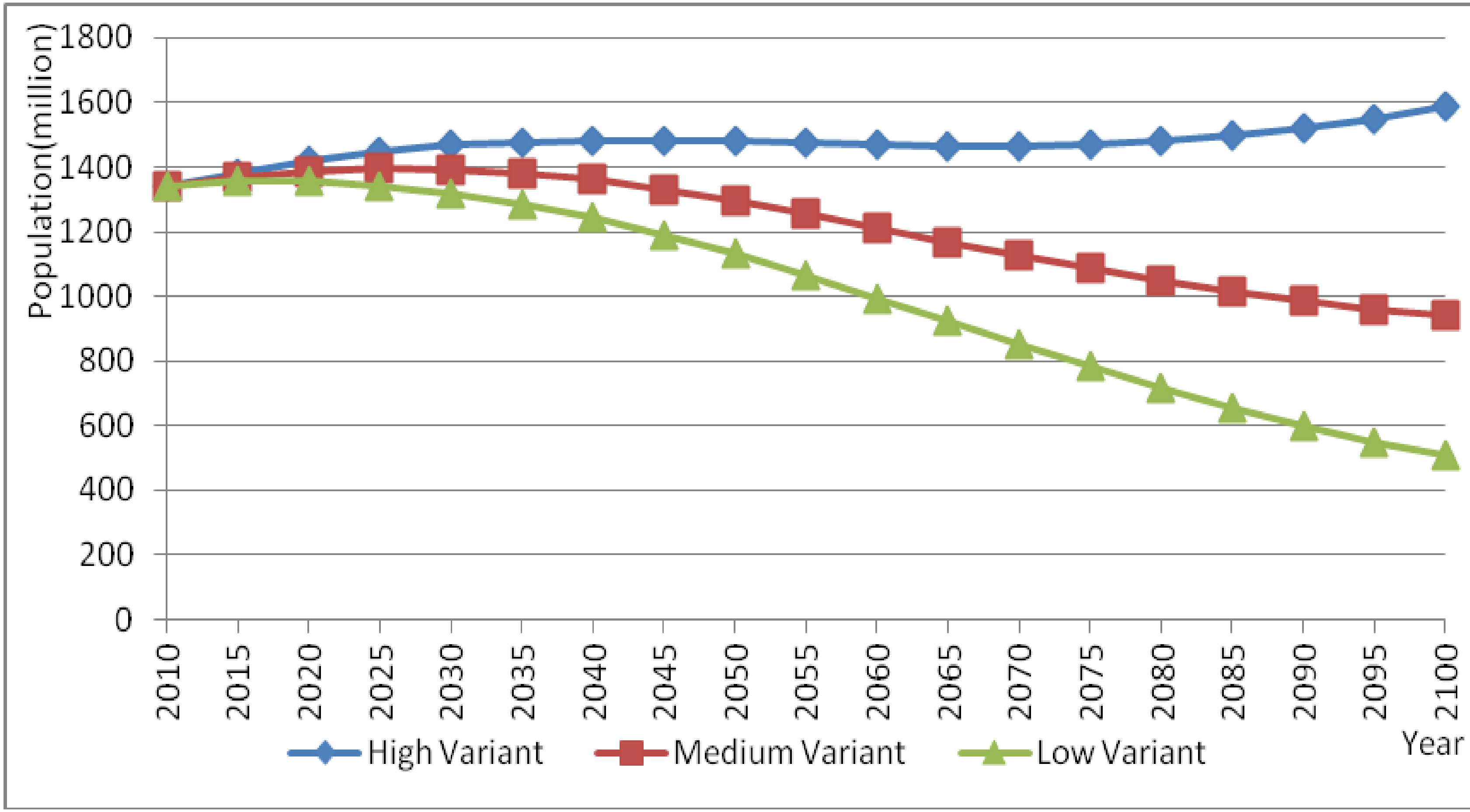
Total population as projected by UN: Medium Variant

- UN *World Population Prospects (the 2010 Revision*) projects that China's population will start to decline in 2026 at the peak of below 1.4 billion.
- At the end of this century, China's total population will shrink to 941 million.

Low Variant

- According to the low variant， China’s population will start to decline in 2017 at the peak of 1.36 billion, falling to merely 506 million at the end of this century, smaller than in 1949.
- Either variant projects that turning point of china’s population from positive to negative growth will occur in the next 5 to 14 years.

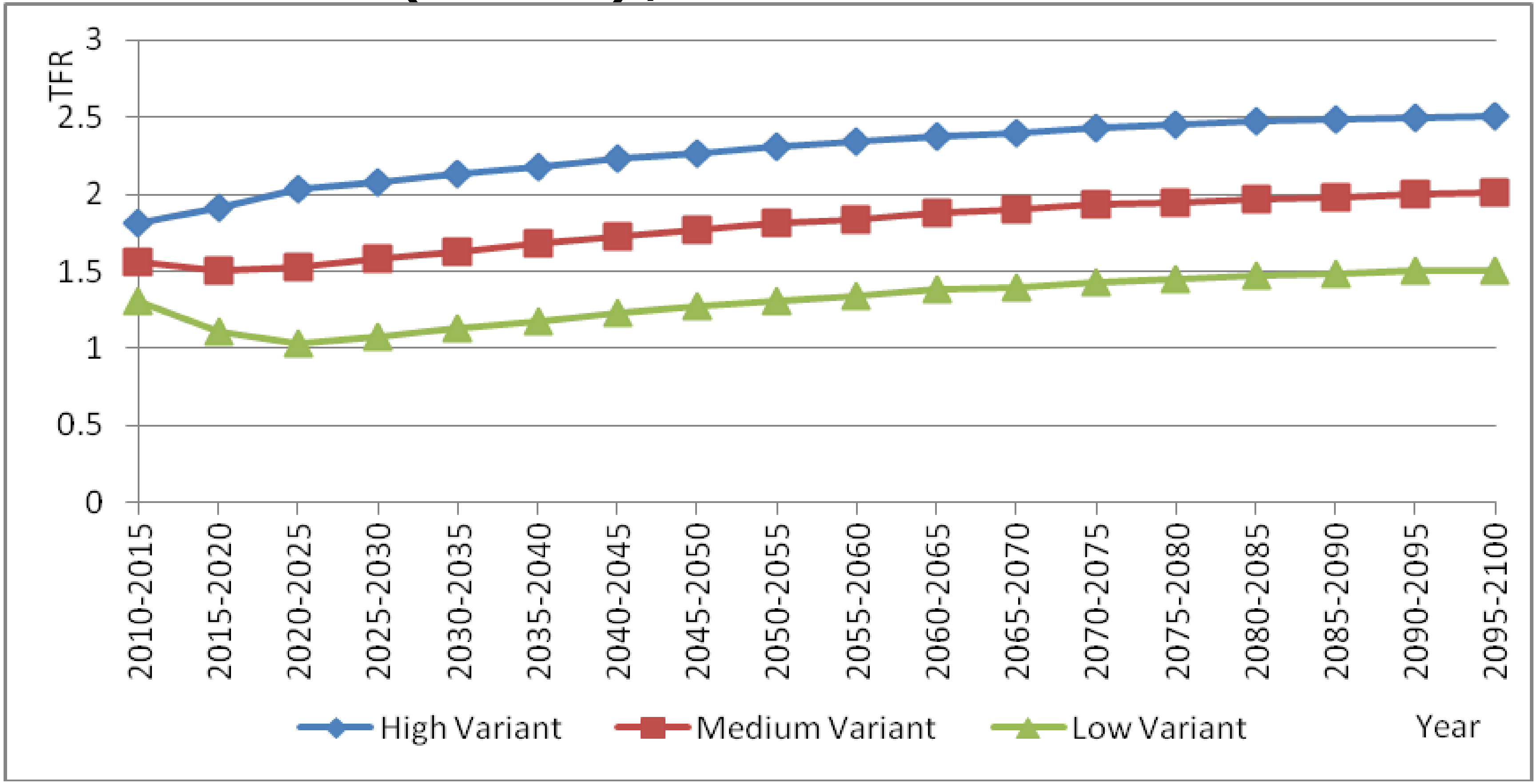
China's Projected Total Population, 2010-2100 (million)



Assumption on Fertility

- The main cause of population decline is low fertility.
- I did not show you the high variants, only because its fertility assumption seems too high.

Assumption on Total Fertility Rate (TFR), 2010-2100



East Asian is the region with the lowest fertility in the world

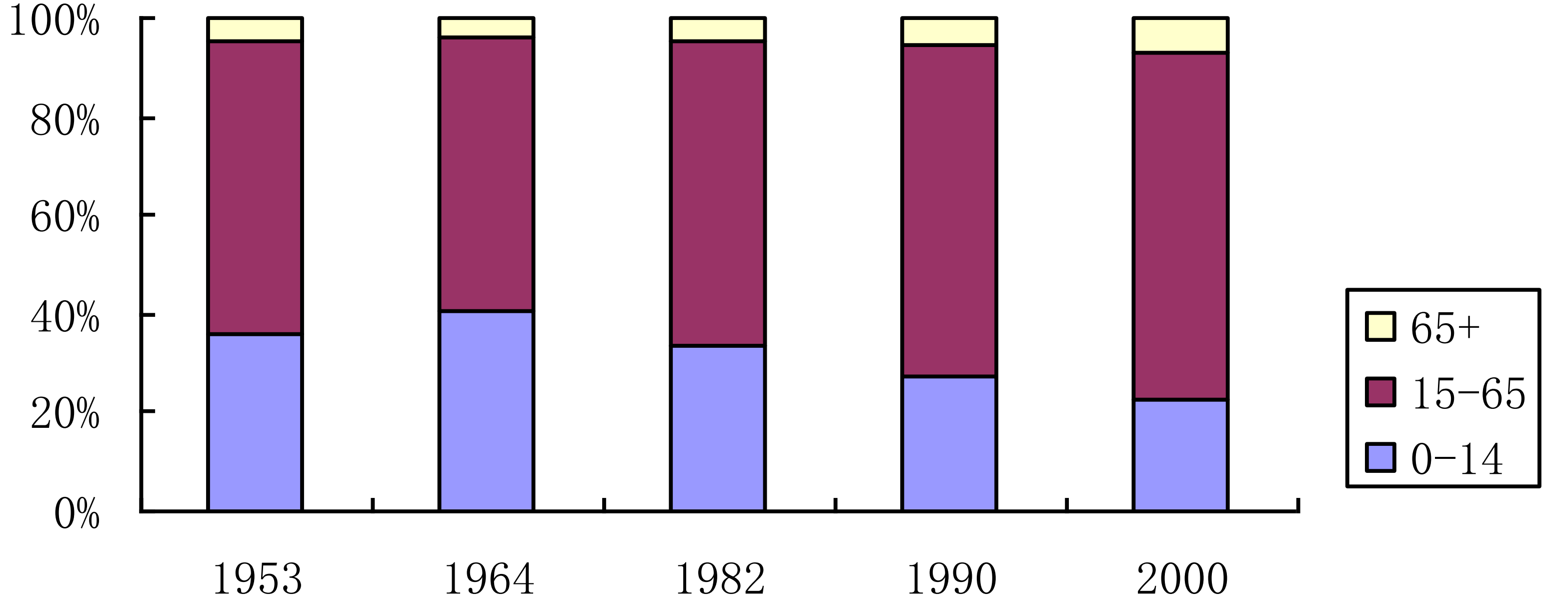
- An observation of the fertility changes in the neighboring countries/regions can provide some hints for the direction of China’s future fertility change.
- In arround 2011，TFR was 1.39 in Japan, 1.23 in Korea.
- The four countries/regions with the lowest TFR in the world is Taiwan (1.16), Hong Kong (1.09), Macau (0.92) and Singapore (0.78), although these countries/regions have pro-natal policies to encourage higher fertility.

China’s TFR might be lower than the medium-variant assumption

- The UN medium variant assumes that China’s TFR would increase from 1.51 in 2015-20 to 2.01 in 2100 might overstate the future fertility, if compared with the real changes in the above-mentioned neighboring countries/regions.
- By analyzing the data from the 6th Census Guo Zhiang (2012) found that the China’s real fertility were below 1.5 in the past decade, and even below 1.4 for some years.

- The general trend is that the size of the “empty account” will continue to grow with population aging and declining system support ratio.

Trend in Population Aging: census data



Impact of population aging on pubic pension programs: The first pillar

- The impacts of population the social pooling account (first pillar). Assuming that the accounts' revenues equal to the pay out benefits, it can be derived that

$$\text{replacement rate} = \text{contribution rate} \times \text{system support ratio}$$

- In a recent study on China’s national balance sheet, Ma Jun, Zhang Xiaorong, Li Zhiguo and et al (2012) conclude that in the base-line scenario, were there no any reforms, the huge deficits in the pension program for urban workers and staff will create heavy burdens on fiscal expenditures.
- In 2050 the deficits would account for 30 percent of the fiscal expenditures in the same year;
- the present value of the total deficits over 2013-50 would sum to 83 percent of GDP in 2011. If taking into account of the deficits in rural pension programs, the burden on fiscal expenditures would be heavier.

3. Previous and Current Reform Efforts

- 3.1 Expansion of Coverage of Pension Programs
- The expansion of the coverage of pension program for urban workers and staff from state to non-state sectors, and from formal to informal employment
- Mandatory participation of peasant workers in the pension program for urban workers and staff
- The institution of pension programs for urban and rural residents. The substantial government financial support to both programs plays a critical role in the development of the programs

3.2 Enhancing the portability of pension funds with spatial and social mobility

- Government’s efforts to make the funds in social pooling accounts portable when people move cross the locality boundary
- Measures to transit the entitlement between urban and rural pension programs are under discussion.

3.3 Efforts to enhance the financial sustainability of PUWS

- The increased government subsidies to the urban pension program
- The efforts to pay-back to empty accounts
  - The pilot to pay-back to the empty personal saving accounts in Liaoning Province since 2001.
  - The pilot extended to Jilin and Heilongjiang in 2004,
  - Further extended to eight provinces of Tianjin, Shanghai, Shanxi, Shandong, Henan, Hubei, Hunan and Xinjiang. The central government provided fiscal aids to the central and western provinces.

- However, the provincial/local governments may have difficulties to allocate continuously adequate fiscal resources to pay-back to the empty personal saving accounts.
- Also the local government might have not incentives to pay back, given the fact that the funds in personal saving accounts received low returns.

- In 2009 Liaoning stopped government subsidies to urban pension and began to diversify the funds in personal saving account to paying pension benefits. This event symbolizes the failure of pilots to reduce/eliminate empty personal saving accounts.

- In 2011, the first three provinces involved in the pilot, Heilongjiang, Liaoning and Jilin, ranked by the size of pension deficit the first, second and the fifth among the 31 provinces. Their deficits in the urban pension amounted to, respectively, Y18.28 billion, Y15.60 billion and Y5.69 billion.

3.4 Efforts to upgrade the level of social pooling and toward national pooling

- The several government documents issued by the state council during 1991-2012 emphasized the importance to upgrade the level of social pooling, with final target at the national pooling. However, little progresses have been made so far.

Several explanations for the failure

- The absence of the blue prints about design and implementation of national pooling,
- Given the inter-provincial and inter-locality disparities in average wage rates, the contribution rate and replacement rate, the better-off provinces/localities are concerned with the possible re-distribution role of national pooling, and hence have little motivation to promote national pooling.
- The central government might be concerned with the possible “moral hazard” of the local governments intending to re-direct the pension debts to the central government.

3.5 The efforts to develop multi-pillow pension system

- Relocating the management of voluntary pension funds from the local governments to the specialized institutes.

4. Further reforms needed to achieve a more equitable and sustainable pension system

- 4.1 The government's principles for further reform of social pension programs: "to broaden the pension coverage, to ensure the basic needs, to establish a multi-pillar pension system and to enhance sustainability" are very correct. The question is how to implement. These principles should be supported by feasible operational reform measures:

- 4.2 national pooling based on a lower compulsory contribution rate
- The current contribution rate of 20%+8% is too high by any international standard. The too high contribution rate tend to exclude the low-income workers including informal employment and peasant worker from participating in urban pension program.
- The compulsory contribution can be reduced to 12% + x%.
- What we can do with a low contribution rate?

- Assuming system support ratio of 2.5 (it is about 3 today), 12% contribution rate can provide 30% substitution rate. In future, when the system support ratio falls below 2.5, the central government can subsidize the differences with central fiscal revenues and collected profits from the state sector.
- The central government is in a good position to promise to the local governments that the national pooling provides replacement rate of 30 percent with contribution of 12 percent. In the present, the central revenues accounted for over half of the total fiscal revenues, while accounting for only less than 20 percent of the total fiscal expenditures.
- Other measures the central government can take to increase support ratio include later compulsory retirement age, and in the long term, reverse fertility control policy to pro-natal policies.

- To re-design the formula for determining the pension benefits to encourage longer years of working/contribution, and the partial association between the level of individual contribution (relative to the national average) and level of pension benefits.
- To mandate the compulsory participation of civil workers and employees of public institutions in social pension program

- In the period of transition from the old toward the new pension system, the local governments can continue to collect contributions after 12% contributions to the national pooling, in the meantime sharing the responsibilities to provide benefits beyond 30% replacement rate.
- To transfer the management of personal saving account funds from local governments to specialized pension funds management institutes, so that the funds can be invested/operated nationwide and the improve the returns. The empty accounts should be gradually paid back in the next 20 years.

- To set up survivor benefits in the current urban pension program with the central government subsidies, so that most non-working urban residents can be protected. The inefficient pension programs for urban residents and rural residents can be replaced by such benefits. Only a small number of rural/urban residents who have no working family members need income support from relief programs run by the civil affairs bureaus.
- To strengthen the zero pillar support to the rural elderly.
- To develop other forms of voluntary pension programs and individual savings for old-age security.

Thank you very much!