27TH INTERNATIONAL CONGRESS OF ACTUARIES

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Un nouveau millénaire, un nouveau défi pour les actuaires

Social Security Reform in China

Yves Guérard
Secretary General
International Actuarial Association

AAI IAA

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Background

- The reform of China's pension system is an important element of China economic reforms
- Very generous pensions but only for a segment of the population: mainly Government, Public Institutions, SOEs urban workers
- Implicit Pension Debt large for the covered segment but manageable as % of growing GNP
- Segmentation of coverage and lack of portability impede labour mobility
- High pension contributions and deficits impede the reform of SOEs and the move to market economy
- The "one child" policy translates into "4-2-1": grandparents, parents, child, accelerates aging

Size and diversity

- The PRC comprises 23 provinces, 5 autonomous regions and 4 municipalities directly under the Central Government
- Multiple Urban Enterprises Pension Systems:
  - 100 m participants; 27 m retirees
  - Mostly SOEs and large urban collective
  - Few in private, foreign-invested, TVE, Self-employed
- Civil Service: 7 m participants; 2,2 m retirees
- Public Institutions: 19 m participants; 5,3 m retirees
  - Government Supported
  - Governement Subsidized
  - Independent

Armed forces: special case as in most countries
Rural workforce and informal sector not covered

Pre-1997 formula

- Very generous Replacement ratios:
  - Civil service: 93+% average (Non-contr.)
  - Public Institutions: 90+% average (Non-contr.)
  - Enterprises: 80+% target but 66.8% average (Contr.)
- NRA: 60M, 50F workers, 55 F salaried but unreduced early retirement pensions
- Eligibility after 15 years
- Indexed to wages
- Death benefit: Cash refund

Variations for Enterprises workers depending on legacy and financial conditions of the pooling unit

Urban Workers Pensions

- Originally a collection of occupational pensions plans administered by each enterprise
- Currently about 2,200 pooling units at variable levels of aggregation: municipalities, regions, provinces administered by Labor Bureaux with some Finance Bureaux collecting contributions
- Compliance variable with leakage both in contributions and benefits
- Local deficits mitigated by subsidies and benefit adjustments. Attempts to pool system deficits regionaly but ultimately supported by Central Government

State Council Document 26
July 1997

- Provided the new design and policy framework for the reform of China's Pension Insurance System for Urban Enterprises workers
- Aims at creating an administratively unified pension system by pooling the Enterprises pension systems into larger units, eventually at the provincial/national level
- Open room for privatization, mergers, downsizing,.. by delinking the financing of workers' security from the finances of SOEs
- Does not target the Civil Sevice, the public institutions, the rural work force nor the informal sector

3 Pillar Structure
(note different numbering)

Basic unified system

- Pillar 1 consist of two mandatory components
  - 1A: Defined benefit 20% average provincial wages (redistributive)
  - 1B: Defined contributions 11% of wages to Individual accounts (earnings related)

Supplemental pensions (To fill the gap)

- Pillar 2: Voluntary Employer sponsored, DB or DC, funded, for own employees
- Pillar 3: Voluntary individual funded DC for employees and self-employed, provided by financial institutions
- Legal, regulatory and market infrastructure under development

Immediate Reform Targets

- Set financing path to liquidate pension debt, eventually fund the Individual accounts and diversify investments
- Reduce benefits, increase contributions, eliminate need for Government subsidies
- Triple coverage of Enterprises urban workers adding 200 m workers beyond the SOEs
- Promote labor mobility, more efficient labor markets and differentiated compensation
- Increased retirement savings help develop capital markets and a modern financial services industry

Logically, Civil service and Public Institutions should be included although there are political difficulties

Prescribed Unified Formula

Source	Total	Social Pool	Individual accounts
Employer	20%	17% *	3%
Employee	8% **	0%	8%
Total	28%	17%	11%

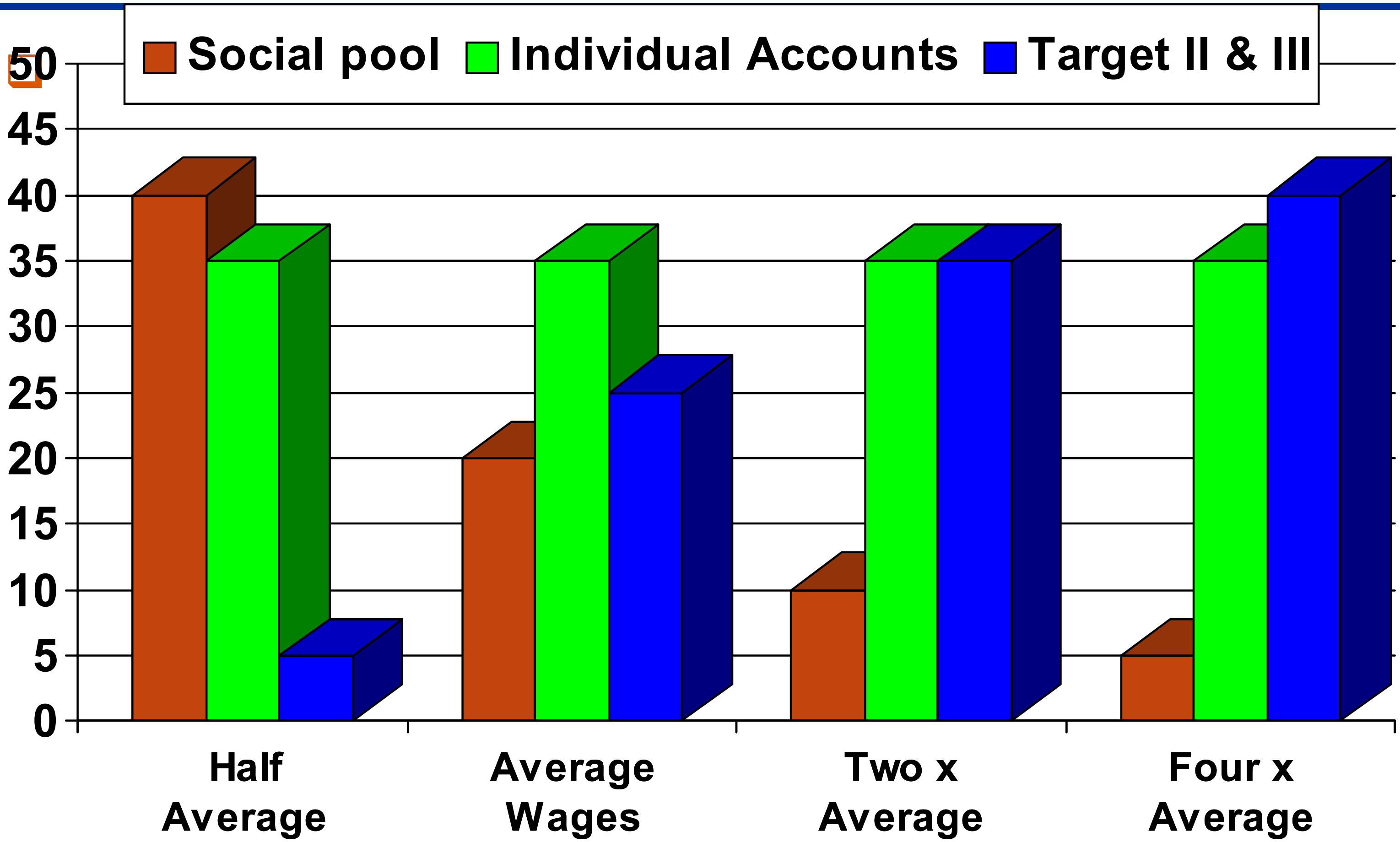
Benefit Replacement ratio	ñ 58.5% At average wages	20% of Provincial average	ñ 38.5% of own earnings

*About 50% needed to service implicit pension debt; many new enterprises come in at ñ 9%

**Target for 2002+; up from ñ 3% pre-reform

China Pillar I, II, III

(Ultimate Benefits in % of participants wages)



The transition

- Major reform replacing a
  - 80+% final pay DB formula

  by
  - 20% of provincial average wages (DB)

    plus
  - 11% DC projected to yield a 38.5% replacement at average wages
- An average reduction of ñ22% of average wages
- A shift from 100% DB to 1/3 DB : 2/3 DC
- Pensions for pre–1997 service maintained
- Required contributions high because of low funding, low returns on assets, low retirement age and leakage

Structure for Basic Pillar

- Pillar 1A operates as a Social Pool to receive Employer contributions financing basic benefits and transition (Pre-1997) benefits for retirees and middlemen
- Pillar 1B designed as funded DC individual accounts but operates as Notional Accounts providing DB benefits equal to 1/120 of the accumulated account at fixed rate of return with financial support from Social Pool

Partial Shift to DC and to market return on assets yet to come

Financing the Socialpool

- Social Pool not sustainable by a 17% contribution rate from current participating enterprises
- Cash flow needed to pay current benefits force diversion of contributions from Individual Accounts
- Employer contribution of 17% % for a 20% flat benefit not attractive for new enterprises
- Enforcement and compliance difficult to achieve for what is perceived as unfair subsidy to some workers
- Higher contribution rate excessive for enterprises: coverage expansion needed to generate margin to liquidate the IPD and fund the Individual Accounts
- Need to cristallize implicit pension debt and finance it from other sources to make expansion saleable

Policy options

- Lower Social Pool costs by financing externally part of the IPD to facilitate extending the coverage to all urban workers thus enabling the gradual funding of the IA
- Reduce excess cost of annuitizing the Individual Accounts by combination of
  - Changes to rule of 120
  - Higher retirement age
  - Reduced inheritance benefits
  - Higher investment returns
  - Lower indexation formula
  - Reduction of replacement ratio to 38.5%
- Increase funding and returns on assets

The impossible 11% DC

- The 120 conversion factor: simple, unisex, uni-age, predictable benefit, facilitates the transition but overshoots the DB target and requires financial support from Social Pool, aggravating the shortfall
- Actuarial life annuity conversion factors would vary from 140 to 300 (age, sex, interest, mortality)
- Lower conversion factor compensates for low notional interest returns during working life but ignores real life expectancies and costs, thus IA cannot operate on a market basis, negating the DC concept
- Uniage factor allows SOEs to shift cost of downsizing and restructuring to the pension system through induced early retirement

Reform Options for NDC accounts

- Maintain low return on NDC but increase post-retirement returns to mitigate cost deficiency
- Associate 120 to higher NRA and differentiate factor by age to achieve more equity and control costs but maintain unisex approach; continue to subsidize remaining differentials
- Move towards actuarially sound factors to gradually eliminate cost differentials; in the meantime use Social Pool to maintain financial equilibrium on paygo or single premium basis
- Move to a real DC with market investment of assets and actuarial conversions to life annuities: value of benefits adjusted to cost 11% on average, including expenses/