Structure of presentation

- Overview on recent developments
- Key issues
- Ongoing initiatives
- Looking forward
Retirement benefits in China

- **Dibao (Minimum Living Standard Guarantee)**
- **Tier 1 Social Pool**
- **Tier 2 Individual Accounts**
- **Enterprise Annuity/Supplementary pension plan**
- **Voluntary personal pillar III**
- **Voluntary employer pillar III**
- **Mandatory social insurance pillar I**
- **Government provided pillar 0**

Mandatory social insurance pillar I

Voluntary personal pillar III

Dibao (Minimum Living Standard Guarantee)

Enterprise Annuity/Supplementary pension plan

Tier 2 Individual Accounts

Tier 1 Social Pool

Voluntary personal pillar III

Voluntary employer pillar III

Mandatory social insurance pillar I

Government provided pillar 0
Coverage in 2002

- 14.2% Special occupational schemes
- 30.7% Rural pension
- 55.1% Enterprise old age insurance

- 91.98 million Enterprise workers
- 10.47 million Institutions & State Organizations
- 5.35 million Others
A brief history

- SOE workers get pensions from two official sources: basic pension (aka social pooling) and individual account – intended to be partially funded
- Social pooling is PAYG and in deficit in most provinces/municipalities
- Contribution revenues from individual accounts are being diverted to pay for the deficits in the social pooling leaving the individual accounts empty
- Some also covered by Supplementary Pension Plan (SPP)
## Evolution of pension provisions

<table>
<thead>
<tr>
<th></th>
<th>Doc 26</th>
<th>Doc 42</th>
<th>Doc 35/36</th>
<th>Doc 38</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social pooling</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CR</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
</tr>
<tr>
<td>Accrual formula</td>
<td>20%</td>
<td>20% + 0.6% for each add’l year</td>
<td>1% p.a. x ratio of own wage to AEW</td>
<td>1% p.a. x ratio of own wage to AEW</td>
</tr>
<tr>
<td>Wage base</td>
<td>Last year’s AEW</td>
<td>Last year’s AEW</td>
<td>Last year’s AEW</td>
<td>Last year’s AEW</td>
</tr>
<tr>
<td>Post retire increase</td>
<td>up to 60% AEW growth</td>
<td>Up to 60% AEW growth</td>
<td>Up to 60% AEW growth</td>
<td>Some linkage to AEW growth</td>
</tr>
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<td></td>
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<td></td>
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<tr>
<td><strong>Vesting</strong></td>
<td>10/15 years</td>
<td>15 years</td>
<td>15 years</td>
<td>15 years</td>
</tr>
<tr>
<td><strong>Individual Account</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CR</td>
<td>11% empty</td>
<td>8% FF</td>
<td>5% FF 3% empty</td>
<td>?% FF ? % empty</td>
</tr>
<tr>
<td>Benefits</td>
<td>1/120</td>
<td>1/120</td>
<td>Proxy of LE at retire</td>
<td>Proxy of LE at retire</td>
</tr>
</tbody>
</table>

*CR represents the personal pension account.*

*AEW stands for Average Earnings at Work.*

*LE stands for Lifetime Earnings.*

*FF stands for% for each year.*

*% empty stands for% empty*
How sustainable is the system?

RMB in billions

[Graph showing 2004 contributions + transfers and 2004 payments]

[Graph showing assets and liabilities in RMB billions]
### Fiscal requirements – Doc 26 & 42

<table>
<thead>
<tr>
<th>Scenarios</th>
<th>Financing Gap (in US$)</th>
<th>IPD (in US$)</th>
<th>Sustainable CR as % of wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doc 26</td>
<td>$1.1 trillion</td>
<td>$1.6 trillion</td>
<td>37%</td>
</tr>
<tr>
<td>Doc 42</td>
<td>$0.7 trillion</td>
<td>$1.5 trillion</td>
<td>35%</td>
</tr>
</tbody>
</table>
Understanding the liabilities

- Matured system: IPD = 85% of GDP
- Transition cost: IPD = 9%
- Legacy cost: IPD = 32%
- Systemic flaws: IPD = 26%

Liaoning's pension debt is estimated to be 152.6% of its GDP in 2001.
High dependency rates

34% → 50% in 7 years, → 100% in 30 years

Under PAYG, CR = system dependency rate \times RR

<table>
<thead>
<tr>
<th>System Dependency Rate</th>
<th>RR</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>34%</td>
<td>60%</td>
<td>20.4%</td>
</tr>
<tr>
<td>50%</td>
<td>60%</td>
<td>30.0%</td>
</tr>
<tr>
<td>100%</td>
<td>60%</td>
<td>60.0%</td>
</tr>
</tbody>
</table>
## Population viz. System Demographics

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2010</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population</strong></td>
<td>29%</td>
<td>37%</td>
<td>64%</td>
</tr>
<tr>
<td><strong>System without expansion</strong></td>
<td>35%</td>
<td>55%</td>
<td>100%</td>
</tr>
<tr>
<td><strong>System with expansion</strong></td>
<td>35%</td>
<td>52%</td>
<td>65%</td>
</tr>
</tbody>
</table>
Rapid aging and demographic dividend

Share of working age population
Share of old age population
Share of young population
Population Old Age Dependency Rate

Year
2001 2011 2021 2031 2041 2051 2061 2071
Long drawn out transition

- Operating parallel systems granting pension amounts that are the greater of two systems for the “middle men” and even the “new men” in some locations
- Existence of a large stock of pensioners with high replacements rates
Prevalence of early retirement

From 15% in 1999 to over 20% in 2001

- 20% of male pensioners < age 60
- 30% of female pensioners < age 55
- 55% qualify under special occupation
- 28% qualify under disability or sickness
- Average retirement age – men 56, women 50
Non-unified system

- Discretionary policy making → fragmentation → regional differences in:
  - contribution rates
  - transition pension rules
  - perverse incentives of non-compliance and false reporting to maximize subsidies
- Impossible to practice risk pooling
Actuarially unfair amortization factor

![Graph showing annuity factors and life expectancy for male and female populations.](image-url)

- **Doc 26 & 42**: Indicates data sources.
- **Doc 35/36**: Additional reference data.
- **LE of Female**: Life expectancy for females.
- **LE of Male**: Life expectancy for males.
ROI, wage growth and replacement rates

Target replacement rate
CR=11%
CR=8%

Difference between ROI and wage growth (in real terms)

Replacement Rate (as % of own final wage)
Wage, inflation and bank deposits

Accumulated value


wage growth 580 yuan
inflation 200 yuan
credited interest 203 yuan
Migration

- Rapid expansion from urbanization
- Social pooling entitlements not transferable
- Migrant workers pay but many do not (or cannot) collect
What difference does it make?

- High mandatory contributions crowd out room for voluntary savings, create incentive to evade and workers to move to the informal sector
- High tax on labor will ultimately affect China’s competitiveness in the global market
- An actuarially unsound system creates perverse incentive for workers to game the system and render it even more unsustainable (a vicious cycle)
- A restrictive investment regime yields low return on investments (viz. wage growth) and in turn discourages savings for retirement
Ongoing initiatives

- “Double low” policy in a number of provinces
- Desire to fund albeit gradual and low level
- Compensation for lost of land for farmers
- Rural pension
- Public Service Units and Civil Service pension reform
- Enterprise annuity (EA); replaced the previous supplemental pension plan (SPP)
Plan design of EA

- EA introduced by MOLSS Doc 20
- Effective: May 1, 2004
- Fully funded
- Covers all enterprises
- Maximum contributions limited to no more than 1/12 of previous year’s wage from each of employer and employee
- Tax exemption on contributions and benefits determined by provincial governments (most around 4-5% of wages)
- Cannot receive lump sum or monthly benefit until statutory retirement age
- Termination benefit: accumulation transfer to new enterprise or remain in previous enterprise
- Permissible investment: subject to prescribed limits
### Assets allocation of EA funds

<table>
<thead>
<tr>
<th>Asset categories</th>
<th>Liquid assets</th>
<th>Fixed Income</th>
<th>Equities&lt;sup&gt;2/&lt;/sup&gt;</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limits</td>
<td>&gt;= 20%</td>
<td>&lt;=50%&lt;sup&gt;1/&lt;/sup&gt;</td>
<td>&lt;=30%&lt;sup&gt;3/&lt;/sup&gt;</td>
<td>100%</td>
</tr>
</tbody>
</table>

1/ at least 20% in government treasury bonds
2/ includes unit trust and insurance products
3/ no more than 20% of assets in direct stock purchases
Looking forward

- Regardless, parametric reform is a must
- A more sustainable financing strategy is needed
- Better investment returns on individual accounts
- Can China capitalize on the demographic dividend?
- To fund or not to fund?
- With the many pilots and experiments, how best to merge and converge over time?
- Is there one model that works better for China than others?
- Should there be a unified national system?
- Can EA provide old age income security?
Key to success

Robust Pension System

Efficient Capital Market & Financial Sector

Effective Pension Fund Management

Old Age Income Security
Thank you

www.worldbank.org/pensions