National Pension Fund Management in Korea

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Presentation Outline

- Overview
  - National pension plan
  - Asset allocation and Performance
  - Pension fund management and Governance

- Challenges and Directions

- Conclusion
1. National Pension Plan

- Founded in 1988 as defined benefits with partially funded
- Coverage: all workers and self-employed persons excluding government employees, private school teachers, military personnel
- Contributions: 4.5% by employee, 4.5% by employer
  - 5 → 9% in 2005 by the self-employed (increasing 1% per year)
- Benefit formula: 1.8(A+B)(1+0.05n), indexed to inflation
- Single largest pension program
## Public Pension Funds in Korea


<table>
<thead>
<tr>
<th>Contributor</th>
<th>2002</th>
<th>2003(F)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>tril. Won</td>
<td>U$ bil.</td>
</tr>
<tr>
<td>National Pension</td>
<td>12,4</td>
<td>92,8</td>
</tr>
<tr>
<td>Korea Teachers Pension</td>
<td>0,2</td>
<td>5,4</td>
</tr>
<tr>
<td>Government Employees Pension</td>
<td>0,9</td>
<td>4,8</td>
</tr>
<tr>
<td>Military Pension Fund</td>
<td>3,7</td>
<td>3,1</td>
</tr>
</tbody>
</table>

(1U$ = 1,200 Won)

(Source : Ministry of Planning & Budget, National Pension Corporation)
- Total Fund as at Dec. 31, 2002 amounted to 93 trillion won (U$77 bil.)
1. National Pension Plan (continue)

- Plan Changes
  - Decrease income replacement rate from 70% to 60% based on 40 years participation
  - Increase pensionable age by one year every 5 years from 2013 and finally become 65 years old in 2033
  - Contributions(revenue) will exceed benefits(expenditure) for 35 years
  - Mandate five-year actuarial reviews to keep long-term financial stability
2. Asset allocation and Performance

- No obligation of deposit to public sector has been reducing share of economically targeted/social investments since 1999
2. Asset allocation and Performance (continue)

Asset allocation by asset class (2002. 12)

- Bond: 90.9%
- Special Bond: 24.8%
- Financial Bond: 22.2%
- Corporate Bond: 26.1%
- Gov't Bond: 17.7%

(Unit: %)

- MMF: 0.15%
- Notes: 0.12%
- MMDA: 0.08%
- Others: 0.61%
- Equity Internal: 4.76%
- Equity External: 3.37%
2. Asset allocation and Performance (continue)

Historical asset allocation by asset class
2. Asset allocation and Performance (continue)

- Diversification of assets

Old asset class
- Bank deposit
- Fixed income
- Money in trust
- Beneficiary paper
- Equity

New asset class
- KOSDAQ
- Private equity
- International securities
- Derivatives (Future/Option)

- Changes in NPC law related to diversification (July 2001)
## 2. Asset allocation and Performance (continue)

### Long-term asset allocation

**as of Dec. 31, 2012**

<table>
<thead>
<tr>
<th>asset class</th>
<th>Domestic by In-house</th>
<th>8.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>by External</td>
<td>7.2%</td>
</tr>
<tr>
<td></td>
<td>Overseas</td>
<td>4.0%</td>
</tr>
<tr>
<td><strong>sub-total</strong></td>
<td></td>
<td>19.2%</td>
</tr>
<tr>
<td>Bonds</td>
<td>Domestic</td>
<td>72.0%</td>
</tr>
<tr>
<td></td>
<td>Overseas</td>
<td>2.0%</td>
</tr>
<tr>
<td><strong>sub-total</strong></td>
<td></td>
<td>74.0%</td>
</tr>
<tr>
<td>Private Equities &amp; Other</td>
<td>Venture Capitals</td>
<td>0.8%</td>
</tr>
<tr>
<td></td>
<td>Real Estates</td>
<td>5.0%</td>
</tr>
<tr>
<td><strong>Alternatives</strong></td>
<td><strong>sub-total</strong></td>
<td>5.8%</td>
</tr>
<tr>
<td>Welfare lending</td>
<td></td>
<td>1.0%</td>
</tr>
<tr>
<td><strong>Financial assets total</strong></td>
<td></td>
<td>100.0%</td>
</tr>
</tbody>
</table>

(Source: National Pension Corporation)
### 2. Asset allocation and Performance (continue)

#### Restriction of assets

<table>
<thead>
<tr>
<th>Type</th>
<th>Limit/Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial bonds</td>
<td>BIS ratio of banking institution: 8%</td>
</tr>
<tr>
<td></td>
<td>Credit rate of issuing company: A grade</td>
</tr>
<tr>
<td>Corporation bonds with warrant</td>
<td>Credit rate of warrant authority: A grade</td>
</tr>
<tr>
<td></td>
<td>Credit rate of issuing company: BBB grade</td>
</tr>
<tr>
<td>Corporate bonds without warrant or ABS</td>
<td>Credit rate of issuing company: A grade</td>
</tr>
<tr>
<td>Equities</td>
<td>Limit: 10% of issuing equity</td>
</tr>
<tr>
<td></td>
<td>Limit: maximum 10% of NPC holding equities</td>
</tr>
</tbody>
</table>
## 2. Asset allocation and Performance (continue)

### Historical rate of return by sector

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate of Return</th>
<th>Economic Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Public</td>
</tr>
<tr>
<td>1991</td>
<td>12.76</td>
<td>11.00</td>
</tr>
<tr>
<td>1992</td>
<td>12.68</td>
<td>11.00</td>
</tr>
<tr>
<td>1993</td>
<td>11.99</td>
<td>9.67</td>
</tr>
<tr>
<td>1994</td>
<td>12.10</td>
<td>10.25</td>
</tr>
<tr>
<td>1995</td>
<td>12.11</td>
<td>11.64</td>
</tr>
<tr>
<td>1996</td>
<td>10.75</td>
<td>10.30</td>
</tr>
<tr>
<td>1997</td>
<td>8.84</td>
<td>10.32</td>
</tr>
<tr>
<td>1999</td>
<td>12.80</td>
<td>8.45</td>
</tr>
<tr>
<td>2000</td>
<td>4.69</td>
<td>8.57</td>
</tr>
<tr>
<td>2001</td>
<td>8.74</td>
<td>6.62</td>
</tr>
<tr>
<td>2002</td>
<td>6.35</td>
<td>6.47</td>
</tr>
<tr>
<td>Average Return</td>
<td>11.33</td>
<td>10.25</td>
</tr>
</tbody>
</table>
2. Asset allocation and Performance (continue)

Historical rate of return relative to GDP growth and CPI

(Unit: %)


Rate of Return

- Financial sector
- GDP
- CPI

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2. Asset allocation and Performance (continue)

Rate of return on Investments by Asset Class

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bonds 13,8%</td>
<td>13,8%</td>
<td>13,4%</td>
<td>15,0%</td>
<td>12,5%</td>
<td>11,0%</td>
<td>8,7%</td>
<td>7,4%</td>
<td>11,9%</td>
</tr>
<tr>
<td>Income 14,0%</td>
<td>13,1%</td>
<td>12,9%</td>
<td>15,4%</td>
<td>17,1%</td>
<td>10,3%</td>
<td>11,6%</td>
<td>-15,2%</td>
<td>9,4%</td>
</tr>
<tr>
<td>Bank Trusts 11,0%</td>
<td>11,8%</td>
<td>12,9%</td>
<td>15,2%</td>
<td>16,0%</td>
<td>9,2%</td>
<td>5,1%</td>
<td>10,0%</td>
<td></td>
</tr>
<tr>
<td>Deposits 11,0%</td>
<td>11,8%</td>
<td>12,9%</td>
<td>15,2%</td>
<td>16,0%</td>
<td>9,2%</td>
<td>5,1%</td>
<td>10,0%</td>
<td></td>
</tr>
<tr>
<td>Cash 13,7%</td>
<td>12,1%</td>
<td>12,3%</td>
<td>13,0%</td>
<td>5,9%</td>
<td>6,2%</td>
<td>4,8%</td>
<td>4,0%</td>
<td>8,9%</td>
</tr>
<tr>
<td>3yr. Treasuries 12,2%</td>
<td>15,0%</td>
<td>7,0%</td>
<td>9,0%</td>
<td>6,7%</td>
<td>5,9%</td>
<td>5,1%</td>
<td>8,6%</td>
<td></td>
</tr>
<tr>
<td>3 yr. Corporates 12,6%</td>
<td>29,0%</td>
<td>8,0%</td>
<td>10,0%</td>
<td>8,1%</td>
<td>7,0%</td>
<td>5,7%</td>
<td>11,3%</td>
<td></td>
</tr>
<tr>
<td>Equities 4,4%</td>
<td>3,6%</td>
<td>-33,6%</td>
<td>60,8%</td>
<td>137,3%</td>
<td>-52,1%</td>
<td>36,8%</td>
<td>-0,5%</td>
<td>7,5%</td>
</tr>
<tr>
<td>by In-house Man</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>by External Manager</td>
<td>41,9%</td>
<td>63,0%</td>
<td>-7,2%</td>
<td>29,0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit Trusts 11,4%</td>
<td>5,6%</td>
<td>5,6%</td>
<td>10,9%</td>
<td>14,2%</td>
<td>-45,7%</td>
<td>30,4%</td>
<td>6,8%</td>
<td>2,2%</td>
</tr>
<tr>
<td>Venture capital</td>
<td>1,4%</td>
<td>3,5%</td>
<td>2,4%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

KOSPI 882,94 651,22 376,31 562,46 1028,1 504,62 693,70 627,55

* Compounded Annual Growth Rate

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2. Asset allocation and Performance (continue)

Historical rate of return (Equity) compared to KOSPI

(Unit: %)

- Equity-NPC
- KOSPI
Summary of background

- National pension plan is partially funded with DB
- Yearly inflows will exceed yearly outflows for next 35 years
- Excess funds are invested in capital markets
- Large exposure to fixed income assets
- Share of public sector investment has been declining since 1999
- Starting to invest 1.700 trillion won of funds outside Korea in 2003
- Average return of financial investment is 12.4% since 1988
3. NP fund management and Governance

- Objectives of fund management
  - Managing the funds in the best interest of contributors and beneficiaries
  - Investing the funds to achieve a maximum rate of return, without undue risk loss
  - Making loans for public/social purposes, if needed
3. NP fund management and Governance

- Governing body of fund management
  - Investment policies are decided by NP Fund Management Committee (Board)
    - chairperson of the Committee is Minister of Health & Welfare
    - 21 members consisting of representatives from Government(6 persons), Employers(3), Employees(3), Self-employed(6), and Professionals(3)
  - NPFMC is more independent and democratic
  - Investment decisions are made for the best interest of all participants
3. NP fund management and Governance

- Governed body of fund management
  - NPC investment management (NPCIM) was established as a separate investment operation unit in November 1999, with “arms-length” to the ordinary NPC functions
    - create independent corporation to manage reserve assets
  - Focus on contribution to value added in the operational management given investment mandate and restrictions
    - responsible for “value added” against the benchmark
  - Private fund managers hired by NPC
    - 8 teams and 65 persons (43 in-house fund managers)
    - compensating fund managers according to their performance
3. NP fund management and Governance

- Division of responsibilities

NPFMC (Governing body)

- ? Investment Policy Statement
- ? Strategic asset allocation
- ? Benchmark
- ? Risk limits
- ? Reports to Congress

NPCIM (Governed body)

- ? Achieve as high return as possible given investment mandate and restrictions
- ? Tactical asset allocation
- ? Implementing policies, procedures and plans
- ? Risk control
- ? Reports to MOHW, NPFMC
3. NP fund management and Governance

Organisation & Investment Decisions

* Number of staff: as of Apr 15, 2003
3. NP fund management and Governance

- Checks and balances within NPC
  - Performance of NPCIM is evaluated by both National Pension Research Center in NPC and outside evaluation institution
    - investment decisions are evaluated in relation to the benchmark portfolio
  - Compliance checked by Audit department in NPC
    - compliance with guidelines
  - Risk management committee was established under the president of NPC in 2001
    - extensive in-house functions for risk measurement and risk management
3. NP fund management and Governance

- Transparent reporting/disclosure
  - Annual report
  - Disclosure of information through Newspaper, Internet etc.
  - Inspection by independent auditing firm
4. Challenges and Directions

- Long-term Financial Projection

Need efficient investment of fund

source: NPC actuarial projection (2001)
4. Challenges and Directions

- A key challenge is how to make National pension plans sustainable over the long run

- Pension is a long-term financial contract

- Objective: to deliver affordable, reliable retirement benefits

- Key: A long-term financial promise
  - Nature of promise: payment of secure
  - How long?
4. Challenges and Directions

- Another key challenge is to seek a long-term target rate of return
  - How to set the long-term rate of return, e.g. growth rate of GDP
  - ALM approach to asset allocation is yet effective
    - Why little consideration to change in liabilities?
4. Challenges and Directions

- Third key challenge for fund management is how to sustain at least current level of returns in the new economic environment

  - Increase in exposure to risky assets (equities), venture, overseas investment, real estate, etc.

  - Reinforcement of advanced risk management

  - Passive vs Active
    - passive (index) management in core portfolio
    - active management in selected portfolio

  - Development of long-term securities (10-year, 20-year bonds)
4. Challenges and Directions

- Last key challenge is how to set good governance principles and practices by which funded reserves can safely maximize returns relative to a modest risk tolerance.
  - Professional competence
  - Independence to make investment decisions
  - Clear-cut responsibilities and rights
  - Commitment to transparency
4. Challenges and Directions

- Significant amount of outsourcing to diversify operational risk
  - Utilization of outside professional managers in private sector
  - Substantial share of outsourcing in asset allocation
  - No distortion of national capital markets

- Reinforcement of corporate governance
  - Protecting value of holding assets
  - Focus on shareholder’s role
    - exchange of information
    - exercise of voting rights
5. Conclusions

- Safeguards in capital markets
- Good Governance
- High focus on Transparency

will be helping to keep the pension promise
Thank you for your attention