PRIVATE HEALTH INSURANCE IN SOUTH KOREA: AN INTERNATIONAL COMPARISON

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Shorenstein AHPP Seminar
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BACKGROUND

1. Health Insurance System in SK
2. Private Health Insurance Market in SK

BACKGROUND: Health Insurance System

- Two-tier market of health insurance in South Korea
  (1) Primary: Universal coverage completed in 1989
    - Public mandatory for all citizens (family-unit enrollment)
    - The National Health Insurance Corporation (NHIC) as a single payer
    - Social security financing based on wage/income/assets
    - Government subsidy and cost sharing
  (2) Supplementary: Private health insurance market
    - First products introduced in 1963 (non-life insurance plans)
    - Evolved (diversified, popularized) greatly during 1990s
    - Diagnosis-based (fixed lump-sum benefit) >> cost-based (per event)
BACKGROUND: 2002 Revision

- Enhancing Private Health Insurance Market
  - Since 1994, the government considers extending the role of supplementary private health insurance
  - 2002 revision of Insurance Business Act: life insurance companies entitled to sell plans for actual medical expenses (effective as of 8/30/2005)
  - Presidential Committee on Healthcare Industry Innovation established in 2005
  - Materialize policy strategies to reform healthcare industry

PRIVATE HEALTH INSURANCE MARKET

- Legal Categories of Private Health Insurance*

<table>
<thead>
<tr>
<th>Legal Classification</th>
<th>Type</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sickness insurance</td>
<td>Medical expenses insurance</td>
<td>Complementary payment</td>
</tr>
<tr>
<td></td>
<td>Critical illness insurance</td>
<td>Fixed-sum payment</td>
</tr>
<tr>
<td></td>
<td>Income compensation insurance</td>
<td>Group insurance</td>
</tr>
<tr>
<td>Long-term care insurance</td>
<td>Long-term care insurance</td>
<td>Fixed-sum payment</td>
</tr>
<tr>
<td>Accident insurance</td>
<td>Accident insurance</td>
<td>Complementary, Fixed-sum</td>
</tr>
</tbody>
</table>

* Life insurance, non-life insurance and the third insurance
Table 1. Benefit Structure: Private and NHI Plans (2001-2006)

(Unit: million Korean Won)

<table>
<thead>
<tr>
<th>Year</th>
<th>Non-life medical expenses insurance (A)</th>
<th>% annual increase</th>
<th>NHI benefit payment (B)</th>
<th>% annual increase</th>
<th>A/B (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>291,613</td>
<td>-</td>
<td>13,165,443</td>
<td>-</td>
<td>2.21</td>
</tr>
<tr>
<td>2002</td>
<td>349,482</td>
<td>19.8</td>
<td>13,669,556</td>
<td>3.83</td>
<td>2.56</td>
</tr>
<tr>
<td>2003</td>
<td>465,139</td>
<td>33.1</td>
<td>15,027,759</td>
<td>9.94</td>
<td>3.10</td>
</tr>
<tr>
<td>2004</td>
<td>485,160</td>
<td>4.30</td>
<td>16,429,344</td>
<td>9.33</td>
<td>2.95</td>
</tr>
<tr>
<td>2005</td>
<td>594,471</td>
<td>22.5</td>
<td>18,365,868</td>
<td>11.8</td>
<td>3.24</td>
</tr>
<tr>
<td>2006</td>
<td>715,904</td>
<td>20.4</td>
<td>21,439,173</td>
<td>16.7</td>
<td>3.34</td>
</tr>
</tbody>
</table>
BACKGROUND

3. Public-Private Mix in Health Care Financing

Figure 2. NHI Financing Structure, 1980–2007

Source: OECD Health Data 2009.

2002 OOP 48.3% THE = 2nd highest in OECD
- High private financing, but declining: 79.9 → 45.1% TEH

- High OOP, but declining
  - %TEH (75.4 → 35.7)
  - OOP for NHI-excluded services (90.2 → 48.8%PVEH)
  - % Private financing (94.4 → 79.2), because
  - OOP for NHI-covered services (4.2 → 30.5%PVEH)

- Private health insurance financing, relatively limited but keep increasing: (0.9 → 9.8%PVEH)

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**Table 3.1 OECD Comparison**

Source: OECD Health Data 2009.

Notes: * Data in 2006. All other data are reported for 2007. The average values are obtained excluding countries with the pertinent information omitted.

<table>
<thead>
<tr>
<th>Sources of financing (%) of TEH</th>
<th>(%) of GDP</th>
<th>Public</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>Gov’t</td>
</tr>
<tr>
<td>Canada</td>
<td>10.1</td>
<td>70.0</td>
<td>68.6</td>
</tr>
<tr>
<td>Germany</td>
<td>10.4</td>
<td>76.9</td>
<td>9.0</td>
</tr>
<tr>
<td>Japan*</td>
<td>8.1</td>
<td>81.3</td>
<td>15.4</td>
</tr>
<tr>
<td><strong>Korea</strong></td>
<td><strong>6.8</strong></td>
<td><strong>54.9</strong></td>
<td><strong>12.3</strong></td>
</tr>
<tr>
<td>UK</td>
<td>8.4</td>
<td>81.7</td>
<td>81.7</td>
</tr>
<tr>
<td>US</td>
<td>16.0</td>
<td>45.4</td>
<td>32.7</td>
</tr>
<tr>
<td>OECD Ave.</td>
<td>8.99</td>
<td>72.7</td>
<td>40.4</td>
</tr>
</tbody>
</table>
• High private financing:
  45.1%TEH >> universal coverage
  \(\leftarrow\text{High OOP: } 35.7\%\text{TEH >> 10+\% in other countries}\)

• Low public financing:
  54.9%TEH >> universal coverage
  \(\leftarrow\text{Low SSC: } 42.7\% << \text{Germany, Japan (60+\%)}\)
Table 2. Budgetary trends in the Korean NHI plan

(In billions of KRW, 1990–2007)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue (A)</td>
<td>2432</td>
<td>5614</td>
<td>6631</td>
<td>7554</td>
<td>8230</td>
<td>8892</td>
<td>9828</td>
</tr>
<tr>
<td>Premium (% of A)</td>
<td>77.5%</td>
<td>64.1%</td>
<td>63.0%</td>
<td>64.6%</td>
<td>63.9%</td>
<td>70.9%</td>
<td>73.6%</td>
</tr>
<tr>
<td>Expenditure (B)</td>
<td>2164</td>
<td>5076</td>
<td>6464</td>
<td>7766</td>
<td>8775</td>
<td>9585</td>
<td>10744</td>
</tr>
<tr>
<td>Annual balance</td>
<td>268</td>
<td>538</td>
<td>167</td>
<td>−241</td>
<td>−558</td>
<td>−718</td>
<td>−916</td>
</tr>
<tr>
<td>B/A (%)</td>
<td>89.0</td>
<td>90.4</td>
<td>97.5</td>
<td><strong>103.2</strong></td>
<td><strong>106.8</strong></td>
<td><strong>108.1</strong></td>
<td><strong>109.3</strong></td>
</tr>
<tr>
<td>Accumul. balance</td>
<td>268</td>
<td>806</td>
<td>973</td>
<td>732</td>
<td>174</td>
<td>−544</td>
<td>−1460</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue (A)</td>
<td>11928</td>
<td>14305</td>
<td>17467</td>
<td>19408</td>
<td>21091</td>
<td>23263</td>
<td>26050</td>
</tr>
<tr>
<td>Premium (% of A)</td>
<td>74.2%</td>
<td>76.4%</td>
<td>78.7%</td>
<td>80.3%</td>
<td>80.3%</td>
<td>80.9%</td>
<td>83.4%</td>
</tr>
<tr>
<td>Expenditure (B)</td>
<td>14106</td>
<td>14798</td>
<td>15972</td>
<td>17330</td>
<td>19980</td>
<td>22818</td>
<td>25889</td>
</tr>
<tr>
<td>Annual balance (A-B)</td>
<td>−2177</td>
<td>−493</td>
<td>1494</td>
<td>2079</td>
<td>1111</td>
<td>445</td>
<td>161</td>
</tr>
<tr>
<td>B/A (%)</td>
<td><strong>118.3</strong></td>
<td><strong>103.4</strong></td>
<td>91.4</td>
<td>89.3</td>
<td>94.7</td>
<td>98.1</td>
<td>99.4</td>
</tr>
<tr>
<td>Accumul. balance</td>
<td>−3637</td>
<td>−4130</td>
<td>−2636</td>
<td>−557</td>
<td>554</td>
<td>999</td>
<td>1160</td>
</tr>
</tbody>
</table>

Note: Calculated by the cumulative sum of A−B since 1990; data before 1990 are not available.

• **Issue 1:**
  High OOP is interpreted by the public that NHI program is ineffective to provide adequate financial protection against medical bills, while the participation and premium payment are mandated not allowing opt-out

• **Issue 2:**
  Chronic budgetary deficit in the NHI program
  Economic growth, epidemiological and demographical change in the Korean population predict a persistent, probably accelerated increase in total health care expenditure
• Solutions?

**Government** should be more responsible?: without additional tax revenue, can the government afford to pay more for the NHI?

**Premium** rate is too low?: this option may not be politically feasible as people expect the NHI as more or less social welfare program provided by the government

→ Both options are already explored during the 1998 crisis period

• What alternative? **Private health insurance**

---

**Table 3.2 OECD Comparison**

Source: OECD Health Data 2009.

Notes: * Data in 2006. All other data are reported for 2007. The average values are obtained excluding countries with the pertinent information omitted.

<table>
<thead>
<tr>
<th>TEH (% of GDP)</th>
<th>Sources of financing (% of TEH)</th>
<th>Third-party paying</th>
<th>Individual paying</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Gov’t</td>
<td>Priv. ins.</td>
</tr>
<tr>
<td>Canada</td>
<td>10.1</td>
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<td>12.8</td>
</tr>
<tr>
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<td>15.4</td>
<td>2.6</td>
</tr>
<tr>
<td><strong>Korea</strong></td>
<td><strong>6.8</strong></td>
<td><strong>12.3</strong></td>
<td><strong>4.1</strong></td>
</tr>
<tr>
<td>UK</td>
<td>8.4</td>
<td>81.7</td>
<td>1.1</td>
</tr>
<tr>
<td>US</td>
<td>16.0</td>
<td>32.7</td>
<td>35.2</td>
</tr>
<tr>
<td>OECD Ave.</td>
<td>8.99</td>
<td>40.4</td>
<td>5.6</td>
</tr>
</tbody>
</table>
In comparison of Germany and Japan:
• Government financing seems modest, not too low
• Premium contributions looks short (42.7 → 64.0+%TEH)
• Private health insurance does its role, not too low

• SSC + OOP =~ 80%
But the relative ratio of SSC and OOP in individual financing shows a distinctive pattern in South Korea

SSC/individual financing(%) = 83.8(G), 81.0(J) >> 54.5(K)

• Why private health insurance, then?

HYPOTHESES
ROLES OF PRIVATE HEALTH INSURANCE

- May lessen government burden
- May reduce NHI premium contributions
- May buffer out-of-pocket spending
  - Enhanced risk-pooling
- May put total health care expenditure under control
  - Market competition, profit-incentive for efficiency

- May put total health care expenditure under control

Annual Growth Rate of Real THE

- 21 -

- 22 -
EMPIRICAL ANALYSIS

DATA AND METHODS

- OECD Health Data 2009
- Random-effect panel analysis
  - 30 countries for 1980-2007
  - Country-specific, time-specific factors controlled out

- Regression equations

\[
\log(\text{govsp}\_\text{hc})_u = \alpha + \beta \log(\text{pri})_{u,j} + \gamma_1 \log(\text{teh})_u + \gamma_2 \log(\text{gdp})_u + \gamma_3 \log(\text{govsp}\_\text{other})_u + u_u,
\]

\[
\log(\text{oop})_u = \alpha + \beta \log(\text{pri})_{u,j} + \gamma_1 \log(\text{pub})_u + \gamma_2 \log(\text{gdp})_u + \gamma_3 \log(\text{teh})_u + u_u,
\]

\[
\log(\text{teh})_u = \alpha + \beta \log(\text{pri})_{u,j} + \gamma_1 \log(\text{gdp})_u + \gamma_2 \log(\text{pop})_u + \gamma_3 (r\_\text{pub})_u + \gamma_4 (r\_\text{elderly})_u + \gamma_5 (\text{elderly})_u + \gamma_6 (\text{inpat})_u + u_u,
\]

\[
\log(\text{inpat})_u = \alpha + \beta \log(\text{pri})_{u,j} + \gamma_1 \log(\text{gdp})_u + \gamma_2 \log(\text{pop})_u + \gamma_3 (r\_\text{pub})_u + \gamma_4 (r\_\text{elderly})_u + \gamma_5 (\text{elderly})_u + \gamma_6 (\text{inpat})_u + u_u,
\]
### Table 4. Effect on Public Financing

<table>
<thead>
<tr>
<th>No lag</th>
<th>1-year lag</th>
<th>2-year lag</th>
<th>3-year lag</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coeff</td>
<td>Std err</td>
<td>Coeff</td>
<td>Std err</td>
</tr>
<tr>
<td>.015</td>
<td>.020</td>
<td>.014</td>
<td>.018</td>
</tr>
<tr>
<td>.016</td>
<td>.017</td>
<td>.008</td>
<td>.018</td>
</tr>
</tbody>
</table>

Source: OECD Health Data 2009.

### Table 5. Effect on OOP

<table>
<thead>
<tr>
<th>No lag</th>
<th>1-year lag</th>
<th>2-year lag</th>
<th>3-year lag</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coeff</td>
<td>Std err</td>
<td>Coeff</td>
<td>Std err</td>
</tr>
<tr>
<td>-.016</td>
<td>.042</td>
<td>-.014</td>
<td>.043</td>
</tr>
<tr>
<td>-.013</td>
<td>.043</td>
<td>-.023</td>
<td>.048</td>
</tr>
</tbody>
</table>

Source: OECD Health Data 2009.

### Table 6. Effect on Total Health Care Spending

<table>
<thead>
<tr>
<th>No lag</th>
<th>1-year lag</th>
<th>2-year lag</th>
<th>3-year lag</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coeff</td>
<td>Std err</td>
<td>Coeff</td>
<td>Std err</td>
</tr>
<tr>
<td>.0823*</td>
<td>.0069</td>
<td>.0759*</td>
<td>.0076</td>
</tr>
<tr>
<td>.0513*</td>
<td>.0078</td>
<td>.0547*</td>
<td>.0080</td>
</tr>
</tbody>
</table>

Source: OECD Health Data 2009.
DISCUSSION

FINDINGS

• Although it is hypothetically possible, private health insurance may not necessarily reduce
  • Government financing
  • Premium contribution
  • Out-of-pocket spending

• Private health insurance financing is positively associated with total health care spending
## DISCUSSION

- Private health insurance enrollment occurs selectively favoring the young, healthy population with better education, income and employment status
  - Inequity in access to care by affordability
  - Inequity in access to care by health risks

- Lack of evidence for cost efficiency and quality gain, but loss in equity in health care is of little doubt
  - Evidence on production efficiency, consumer satisfaction, price effect of market competition is insufficient or missing

## DISCUSSION

- The expansion of supplementary private health insurance market should be approached with caution/evidence

- Policy effort should first focus on improving the NHI benefit package to maintain equity in health care

- Financing instability and cost inefficiency may be tackled by alternative means to improve delivery system
  - Reimbursement reform: DRGs, prospective payment
  - Review process: quality and appropriateness of care, provider monitoring, utilization review, practice guideline
FURTHER STUDY

• Examine the outcomes of supplementary private insurance coverage
  (1) Selective enrollment and equity loss
  (2) Moral hazard effect on use of services
  (3) Savings in OOP at the individual level
  (4) Health outcomes of enrollees
  (5) Performance of NHI program
  (6) Quality improvement
  (7) Consumer responsiveness

Thank you

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