Socially Targeted Investments for Pension Stakeholders in Japan

Henry Jin (UNSW)
Olivia S. Mitchell (NBER/Wharton)
John Piggott (UNSW)

Presented at the
13th Australian Colloquium of Superannuation Researchers, CPS, UNSW

Sydney July 2005
Motivation:

• Japanese pensions seek to build assets:
  – Corporate DB plans
  – DC plans starting up

• Japan: history of social investment (e.g., postal savings system)

• What should be role of “Socially Targeted” or “Socially Responsible” investments (SRI)?
Overview:

• We focus on financial performance:
  – Evaluate SRI movement globally;
  – Assess SRI index performance in Japan.

• Findings:
  – For Japan: SRI index investment neither financially advantageous nor detrimental
Spread of SRI:

- US: Early 1920s
- UK: Spread during 1980s
- Asia-Pacific: Boost from ASrIA
- Japan: Strong recent interest
  - Eco funds from 90s
  - SRI Indices from 00s
  - 2003: 1st Japanese SRI Pension Fund (¥ 2 billion of ¥84 billion)
  - 2004: ¥71 billion in SRI in Japan
Evolution of SRI Criteria:

• SRI criteria in past:

  – Negative Screening ➔ Early
    Eg: No South Africa
  – Positive Screening ➔ Next
    Eg: Environmentally friendly
  – Active Engagement ➔ Now
    Eg: Board composition, child labor policy
Does SRI enhance or hurt investment performance?

• Null H: Using nonfinancial criteria to select assets for a portfolio will:
  – Hurt returns;
  – Increase risk; or
  – BOTH

• Alt. H: Nonfinancial criteria enhance long-run investment performance.
## Previous Literature: SRI Effects

More recent data

<table>
<thead>
<tr>
<th>Period</th>
<th>Positive</th>
<th>No Effect/Inconclusive</th>
<th>Negative</th>
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<tbody>
<tr>
<td>1980s</td>
<td>1 of 2</td>
<td>0</td>
<td>1</td>
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<tr>
<td>1990s</td>
<td>7 of 13</td>
<td>3</td>
<td>3</td>
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<tr>
<td>2000s</td>
<td>2 of 6</td>
<td>2</td>
<td>2</td>
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</tbody>
</table>

→ Positive impact of SRI on returns, but mixed
SRI Indices in Japan

• Morning* SRI Japan
  – Launched May 03
  – Includes 150 stocks from 6000-stock universe

• FTSE4Good Japan
  – Launched Sept 04
  – Includes 166 stocks from FTSEJAPAN universe (600 stocks)
Japan Morning*

• Qualitative evaluation using 5 criteria:
  – Governance/ accountability
  – Market: customer service/relations with related companies
  – Employment
  – Contribution to society
  – Environment

• CSR activities of all firms listed in Japanese stock markets assessed using
  – questionnaires
  – information from stakeholders
  – communication with firms.

• Size does not affect evaluation
• Weights not strictly market cap
• Subset of firms selected on criteria such as liquidity
Our data sources:

• TOPIX, FTSE, and Nikkei500 stocks at September 2004

• Morning*: Monthly data on index performance, and information sheets on firm assessments

• FTSE4GOOD: Website

1st Analysis of Japanese SRI

- SRI Portfolio (Market-cap weighted)
  - M*124: 124 stocks in M* SRI
  - M*10: Top 10 stocks in M* SRI
  - FTSE10: Top 10 stocks in FTSE4GOOD

- Benchmark: TOPIX
  - 84 Months (Jan97- Dec03)
1st Analysis of Japanese SRI
1st Analysis of Japanese SRI

![Graph showing the performance of MS124 Buy&Hold, MS124 Constant Mix, and TOPIX from Dec-96 to Dec-03. The SRI Portfolio (30Dec1996=100) is plotted against End of Month.]
1st Analysis of Japanese SRI
1st Analysis of Japanese SRI
1st Analysis of Japanese SRI

SRI Portfolio (30Dec1996=100)
Summary of 1st results

• Japanese stock market lost 29% of value [measured by TOPIX 97-03]

• Both established SRI indices achieved positive returns without additional risk.
  – M*10 and FTSE10 both outperformed M*124
Now consider survivor bias:

- Why? (static portfolio vs dynamic benchmark)
  - TOPIX: dynamic
  - SRI Portfolio backward-looking; only stocks listed for full data period (7 years) are present.

- Correcting for this bias:
  - Dynamic vs dynamic (not yet possible)
  - Static vs static (Not perfect, but controls for survivor bias)
2nd Analysis of Japanese SRI

- Benchmark: The “JMP” Index
  - Union of FTSE & NK500 (Sept04)
  - 563 stocks (≥ 24 months data)

- SRI Portfolio:
  - Union of M* SRI and FTSE4GOOD
  - 255 SRI stocks from JMP set of stocks
  - Market cap used for weighting
2nd Analysis of Japanese SRI
2nd Analysis of Japanese SRI
Summary of 2^{nd} Results

- CAPM test \( r_{SRI,t} - r_{f,t} = \alpha + \beta(r_{JMP,t} - r_{f,t}) + u \)
  - Alpha=0.0007748
    - Not significantly different from 0
  - Beta=1.0219
    - Not significantly different from 1

- Controlling for survivor bias, SRI cap-weighted index tracks market: no advantage or disadvantage.
3rd Analysis of Japanese SRI: Regression

• Does an SRI designation provide information about financial performance?

• Monthly Return Panel Data Analysis
  – 44,861 observations (563 stocks x 84 months)
  – 255 of 563 stocks have SRI flag
  – Risk Factors: Market Return, SRI Flag, Market Cap, PB Ratio
3\textsuperscript{rd} Analysis: Models

- Model 1
  \[ r_{i,t} - r_{f,t} = \alpha + \beta (r_{JMP,t} - r_{f,t}) + \gamma \cdot SRI_i + u_1 \]

- Model 2
  \[ r_{i,t} - r_{f,t} = \alpha + \beta (r_{JMP,t} - r_{f,t}) + \gamma \cdot SRI_i + \psi \cdot CAP_{i,t} + \omega \cdot PB_{i,t} + u_2 \]
## 3<sup>rd</sup> Analysis: Results Jan 97 ~ Dec 03

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Model 1*</th>
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<th>Model 2**</th>
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Latest Update: M* performance

Source: www.morningstar.co.jp  June 2005
### 3rd Analysis: Results Jan 97 ~ Feb 05

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### 3rd Analysis: Results Jan03 ~ Feb 05

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Summary of 3rd phase results

- 1997-2003: SRI designation provides no predictive information about stock performance
- 2003-2005: possible negative effect
- Dividends: Not significantly different between SRI and non-SRI sets
Conclusions: What Role for SRI Portfolio in Pensions?

- SRI for Japanese pension investors not particularly detrimental but not advantageous either.
- BUT findings confined to “broad” SRI indices & results sensitive to dynamic weighting
- In DB context, fiduciaries should not overweight SRI indices
- In DC context: SRI indices often on fund menu for participants to select
- So far: gross of costs
For more information:

• The Pension Research Council:  
  http://prc.wharton.upenn.edu/prc/prc.html

• Centre for Pensions and Superannuation, UNSW:  
  http://www.cps.unsw.edu.au/

• Executive Education:  
  Pension Strategy Course September 2005  
  http://execed.wharton.upenn.edu/course.cfm?program=PS