The Future of “Old” Industry in Japan
Hollowing Out, Growing with Asia, or Switching to Services?

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Outline

- Is the world is changing too fast for an old island?
  - Japan is challenged, but part of the Asian growth story

- Domestic restructuring
  - Investment slowdown ("Lost Decades")
  - overseas investment and cooperation
  - profitable services

- Challenges remain
  - Political “leaning against the wind”
  - Government shift to demand-side economics
  - Increasing competition in Asia
A New World …

Real (Potential) GDP Growth Forecast 2009–2014

... with Fundamental Shifts: Working Population

% Working Age

GDP Growth Rate (Japan)

GDP Growth Rate (Korea)

Source: © FRI 2010; Data from UN.
...and Global Shifts: “New Silk Road”

- New Silk Road
  - Africa Export to Asia +20% YoY from 2000 (China +50% YoY)
  - New Trade Centers: Singapore, Dubai, Istanbul, Hong Kong

Emerging country exports growth similar to Germany but slower than Korea’s +400%
Japan Mfg Overseas Subsidiaries Sales by Sector (Bn Yen)

Source: © FRI 2011. Data from METI, CEIC.
… with a High Risk of “Hollowing Out”

Mfg Employment (1990=100)

Mfg Employment (Percent of Total)

Germany, Italy:  
>20% of Workforce

Japan:  
17% of Workforce

US/UK/Australia/Canada/Holland:  
>10% of Workforce

Note: Index (1990=100) based on employed persons.
Domestic Restructuring

- The “Lost Decades” on back of an investment slowdown
Exports drive Growth in Japan

About 50% of GDP growth in Japan comes from Exports

Source: © FRI 2011. Data from Cabinet Office, CEIC.
... although Exports are only 15% of the Economy

**GDP Components (% GDP)**

**Japan**
- Consumption
- Exports
- Government
- Net-Investment

**Korea**
- Consumption
- Exports
- Net-Investment
- Government

- Japan has low levels of export and net-investment

Source: © FRI 2011. Data from CEIC; National Statistics (2011)
… because the Domestic Market remains Anemic

- Manufacturing boosted by Export
- Services held back by Trade

Ageing: Domestic goods market won’t recover anytime soon

Deflation: Companies are focusing on cost cutting, overseas investment

Regulation: The huge service market remains highly regulated and is considered a pool for surplus labor

Corporate Strategy: Focus on profits, niche & overseas markets

Note: Indices of Industrial Production and Tertiary Activity; reindexed 2003=100; seasonally adjusted.
... and Companies are Ageing too

Most Japanese companies are here

Sales stagnates, but profit is generated by cost cutting

Sales and profit are both increasing

Sales increase, but profits do not follow

Sales and profit both decline; forced to leave

Overseas, M&A

New entry Venture
The Roots of Japan’s "Lost Decades"

- Japan’s underperformance after 1991 has been well-researched
  - Ageing: Low demand, slow structural change, decreasing innovation
  - Structural Change: Price level adjustment (deflation), shift from manufacturing to services, insufficient labor markets and corporate turn over (entry/exit)
  - Governance: Low profitability, low globalization, over-regulated services, local monopolies, ineffectual policy processes

- Put together, a model of a stable equilibrium on a down-trend emerges. Are we willing to believe this?
  - Maybe: Most structural explanations of Japan’s malaise are convincing
  - Maybe: Policy recommendations to fix the problem have gone nowhere: money has been printed, public debt has sky-rocketed, and structural reforms have been unwanted
  - **BUT** most economists continue to think that a market economy eventually heals itself and finds a path to sustainable growth

- A fresh look at the “engine of growth” supports optimism
  - Investment is the driving force of growth, in Japan 65% of growth come from capital investment
  - But “net investment” has been falling over two decades because companies needed to adjust their high capital stocks to a mature, ageing society
  - Today, adjustment might have run its course, and recovering net investment might put some sparkle back into Japan’s dormant economy
Japan’s “Over-Investment” has been a Driver and a Brake

Gross Investment Rates (% GDP)

- High investment rates beyond 30% pushed growth until the 1970s
- Deleveraging after 1990 to 20% resulted in depression and deflation

Note: Ratio of Gross Fixed Capital Formation over GDP. The dotted line is the centered 3-year moving average of the GDP growth rate.

In Japan, investment contributes about 65% to (value added) economic growth, labor contribution is often negative and averages at only 15%, innovation (TFP) contributes 20%.

In the US, investment contributes about 50%, labor 40%, and innovation 10%.

Investment is the true “engine of growth,” if it falls economies falter.

The two “industrial” economies Japan and Germany are well-known for their high levels of investment (of about 25% GDP).

But the historically accumulated capital stock also led to high capital consumption (costs), which dragged the economies through depreciation.

“Net” real investment, which is an indicator for quality adjusted “new” investment, has been falling from the 90s.

“Maintenance” of an ageing capital stock dominated “future” investment.

Note: Investment as Real Gross Fixed Capital Formation (RGFCF). Deflated by 1995 asset prices.

Why is Japan’s Net-Investment falling?

- During structural change, depreciation can over-shoot lastingly
  - Depreciation of the capital stock can last up to 30 years (for buildings, which constitute 50% of Japan’s capital stock)
  - New (gross) investment is used to “maintain” and restructure the existing capital stock; i.e. “writing off” a venture requires downsizing investment
  - New (net) investment into ventures becomes a function of what is left after downsizing and maintenance requirements

- In ageing economies, slowing demand and deflation become an additional drag
  - Restructuring of the capital stock (cost cutting) becomes the engine of growth
  - Price dumping, to keep the existing capital stock employed, reduces incentives for investment in “new” ventures
  - Deflation becomes as much a consequence as a cause of (net) disinvestment
Investment Cycle: Where are we now?

Real Net Investment (% GDP)

- Investment “bubbles” in the US, currently below historical lows
- Bottoming out in Germany, driven by strong ICT investment
- Bottoming out in Japan below historical “bottom levels” of 5%?

Domestic Restructuring

- Investment recovery?
Capital Efficiency has already recovered…

- Economic growth is determined by the rate of investment and the efficiency of capital $DY = \frac{I}{Y} \times \frac{DY}{DK}$
- While investment rates are bottoming out, capital efficiency has already recovered on strong cost-cutting
- Increasing investment on basis of high capital efficiency would provide a major boost to growth

Note: $DY/\text{DK}$ is the ratio of yearly growth of value added (production) over capital input growth; $I/Y$ is the ratio of yearly change in capital stock (investment) over value added; $DY$ is the yearly change of value added. All ratios in percent.

… so Investment drives Growth again

Non-ICT Investment is the driving force in “Old Industry”
Japan’s “Old Industry” increases productivity by investing in production processes

Source: © FRI 2011, Data from EU KLEMS Database.
… resulting in Global Outperformance

Value Added Growth (2003–2007; % Average)

US: 10.9  DE: 8.4  JP: 15.2

Source: © FRI 2010, Data from EU KLEMS Database. Note: Data for Japan only 2003–2006.
Investment initially flows Abroad

Trade and Income Balances (Bn USD)

Note: Billion USD. Source: © FRI 2010. Data from OECD Economic Outlook.
…with the main Wave of Overseas Investment still coming

Crossborder M&A (Number of Deals)


Note: US Cross-border Deals exclude North America.
The next Investment Target: Services

Capital Efficiency = Value Added / Fixed Assets

- Due to a relatively lower capital stock, capital efficiency in services has been recovering faster than in manufacturing.
- Services are now a prime target for investment in Japan.

… where Profits start to surpass traditional Manufacturing

![Profit Rates Graph](image)

- Service profits have converged, producing opportunities in business services, health care, retail, …

Services already dominate the Topix Profitability Ranking

<table>
<thead>
<tr>
<th>Sector</th>
<th>ROE</th>
<th>Profit Margin</th>
<th>ROA</th>
<th>Earning Margin</th>
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<td>11</td>
<td>30</td>
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Note: Topix Top 100, selected by weighted profit indicators.

During the two “lost decades,” capital adjustment, depreciation and maintenance of Japan’s high capital stock was holding companies back.

A shrinking domestic market has turned companies into efficient investors – “cost cutting” has become their second nature.

“Bottoming out” of net (new) investment would revive growth.

Investment recovery would enhance Japan’s role as a global exporter and investor.

Investment recovery gains from profit growth in the huge service sector.
Challenges

- Restructuring without government support
- Shift to demand-side economics
Government tried to “Buffer” Restructuring

Financial Surplus & Deficit by Sector as % of GDP (Saving-Investment Balances)

-10.0
-5.0
0.0
5.0
10.0
15.0

% GDP

Households

Surplus

Non-Financial Corporations

Financial Corp.

Government

Deficit

Note: Aggregates based on 2000 prices.

...resulting in unsustainable Government Debt Levels

Government Net Debt (% of GDP) of Major Countries

### International comparison of fiscal conditions (2010)

<table>
<thead>
<tr>
<th>Country</th>
<th>Gross debt /GDP</th>
<th>Net debt /GDP</th>
<th>Annual deficit /GDP</th>
<th>Interest payment /GDP</th>
<th>Interest rate of national bond</th>
<th>Current account /GDP</th>
<th>Inflation rate</th>
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<tbody>
<tr>
<td>Japan</td>
<td>199.7</td>
<td>116.3</td>
<td>5.7</td>
<td>1.4</td>
<td>1.1</td>
<td>3.6</td>
<td>-0.7</td>
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<td>USA</td>
<td>93.6</td>
<td>67.3</td>
<td>8.5</td>
<td>1.6</td>
<td>3.2</td>
<td>-3.2</td>
<td>1.6</td>
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<tr>
<td>UK</td>
<td>82.4</td>
<td>56.3</td>
<td>8.3</td>
<td>2.6</td>
<td>3.6</td>
<td>-2.5</td>
<td>3.3</td>
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<td>Germany</td>
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<td>50.1</td>
<td>1.3</td>
<td>2.0</td>
<td>2.7</td>
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<td>France</td>
<td>94.1</td>
<td>56.6</td>
<td>5.4</td>
<td>2.3</td>
<td>3.1</td>
<td>-2.2</td>
<td>1.7</td>
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<tr>
<td>Spain</td>
<td>66.1</td>
<td>40.2</td>
<td>7.9</td>
<td>1.5</td>
<td>4.2</td>
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<td>2.0</td>
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<tr>
<td>Italy</td>
<td>126.8</td>
<td>99.1</td>
<td>3.0</td>
<td>4.2</td>
<td>4.0</td>
<td>-3.5</td>
<td>1.6</td>
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<tr>
<td>Greece</td>
<td>147.3</td>
<td>114.2</td>
<td>11.6</td>
<td>5.3</td>
<td>9.1</td>
<td>-10.4</td>
<td>4.7</td>
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<tr>
<td>Portugal</td>
<td>103.1</td>
<td>68.8</td>
<td>6.4</td>
<td>3.0</td>
<td>5.4</td>
<td>-9.7</td>
<td>1.4</td>
</tr>
</tbody>
</table>

出所: OECD Economic Outlook
Public Burden per GDP is sure to Grow further

Source: OECD national accounts
## DPJ vs. LDP Policy

<table>
<thead>
<tr>
<th>DPJ</th>
<th>LDP</th>
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</thead>
<tbody>
<tr>
<td>Consumer (demand side)</td>
<td>Producer (supply side)</td>
</tr>
<tr>
<td>Big government (if they could increase taxes)</td>
<td>Small government (low consumption, high investment)</td>
</tr>
<tr>
<td>Consumer, NPO, Unions</td>
<td>Industry Association, Companies</td>
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<tr>
<td>Distribution</td>
<td>Growth (status quo)</td>
</tr>
<tr>
<td>Environment</td>
<td>Growth (status quo)</td>
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<td>Protectionism (-&gt;Free Trade)</td>
<td>Free trade (-&gt;Protectionism)</td>
</tr>
</tbody>
</table>

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Second highest Poverty Ratio after the US

Poverty ratio is defined as % of families with income less than half of the average family income.

Source: OECD Growing Unequal?
Public Expenditure on Education of OECD Countries

Source: OECD Education Outlook

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Family Assistance in the OECD

Tax cut

service

Difference to French levels: 12.5 Trillion Yen

Cash disbursement (% of GDP)
Challenges

- Tricky Asian integration
- Increasing Asian competition
Japan’s East Asia “Integration” is a huge Challenge

1. Japan remains slow in pushing Asia Integration
   Japan is not opening its agriculture and labor market

2. Competing ideas for an East Asia Economic Community
   No specifics of DPJ East Asia Community Proposals
   Prospects for FTAs with China, Korea, Australia, NZ and India are not good

3. Asia remains skeptical about Japan’s role
   1. Which East Asia Community?
      - Japan, China, Korea + ASEAN 10 (EAFTA)
      - Japan, China, Korea + ASEAN 10 + India, Australia, NZ (CEPEA)
      - APEC / TPP
   2. Which Content?
      - Free Trade Agreement (FTA)
      - Cooperation projects (global warning, monetary cooperation, HRD, Infrastructure)
      - Coordination of economic policies
      - Creation of a new international organization (OECD of East Asia)
   3. Problems
      - Legally binding framework like EU is unfeasible
      - Region-wide FTA like NAFTA (TPP?) is a distant possibility
      - No common value (market economy, democracy, religion)
      - Leadership vacuum
      - What is the US up to?
ASEAN is an Inefficient Hub of bilateral FTAs

China-ASEAN
- 05年7月 物品貿易協定発効
- 07年7月 サービス分野発効
- 09年8月 投資分野署名

Korea-ASEAN
- 07年6月 物品貿易協定発効
- 09年5月 サービス分野発効
- 09年6月 投資分野署名

India-ASEAN
- 09年8月 物品貿易協定署名

JPN-ASEAN
- 08年12月 発効

Aust-NZ-ASEAN
- 09年2月署名
China’s Trade Balance (Ex-Im) by Major Product Group

- Optics
- Vehicles
- Machinery

Source: © FRI 2011. Data: CEIC
China becomes a tremendous Competitor in Asia

Source: © FRI 2010. Data: CEIC
Bottom Line

- “Lost” decades are almost done
- Japan is increasingly becoming part of the Asian growth story
- Business, not least in services, becomes profitable again
- Policy remains to be a drag
- Asian markets change from “everybody gains” (from trade with China) to “fierce competition”