

What Model for Japan's Future?

Overcoming the Hollowing-Out Syndrome

Presentation at the Brookings Institution Conference on
“The Hollowing-Out of Japan's Economy: Myths, Facts, Countermeasures.”
February 20, 2013

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Structure of the Presentation

- Introduction
 - Hollowing-out is a problem because it leads to low per capita GDP growth in the longer-term.
- Alternative Scenarios
 - For the scenarios to sustain, Japanese economic systems have to be reconstructed.
- Additional Remarks
 - Scenarios imply that Japan is going to stay as immature creditor-lender.

Introduction

Hollowing-Out Syndrome in Retrospect

- *Hollowing-out* can be defined as a decline in domestic manufacturing production due to deterioration of the competitiveness of tradables.
- In that sense, Japan has experienced similar situations in the past when Asian economies started to show rapid developments as a result of inflow of capital and technology.
- In those days, Japan was able to had over labor-intensive industries to Asian developing economies and expand capital- and technology- intensive industries instead.
 - i.e. *Flying-Geese type of economic development* in Asia.

Recent Experience of Hollowing-Out

- Since mid-1980s, Japanese firms in the manufacturing sector have been increasing FDI and shifted production sites abroad, mainly to Asia, to make the most of low labor cost and export products from the host country.
- More recently, Japanese manufacturing firms are increasing FDI to capture the expanding domestic market of the host country (particularly China).
- Non-manufacturing firms are also increasing FDI to do business in the host country with large population.

Modest Impact on Production

- While exports from the subsidiaries partly substituted exports from Japan and increased imports of final goods back to Japan, they also stimulated exports of intermediary goods from Japan to the host country.
- As a result, total manufacturing production managed to show a modest increase since 1990.

Adverse Impact on Employment

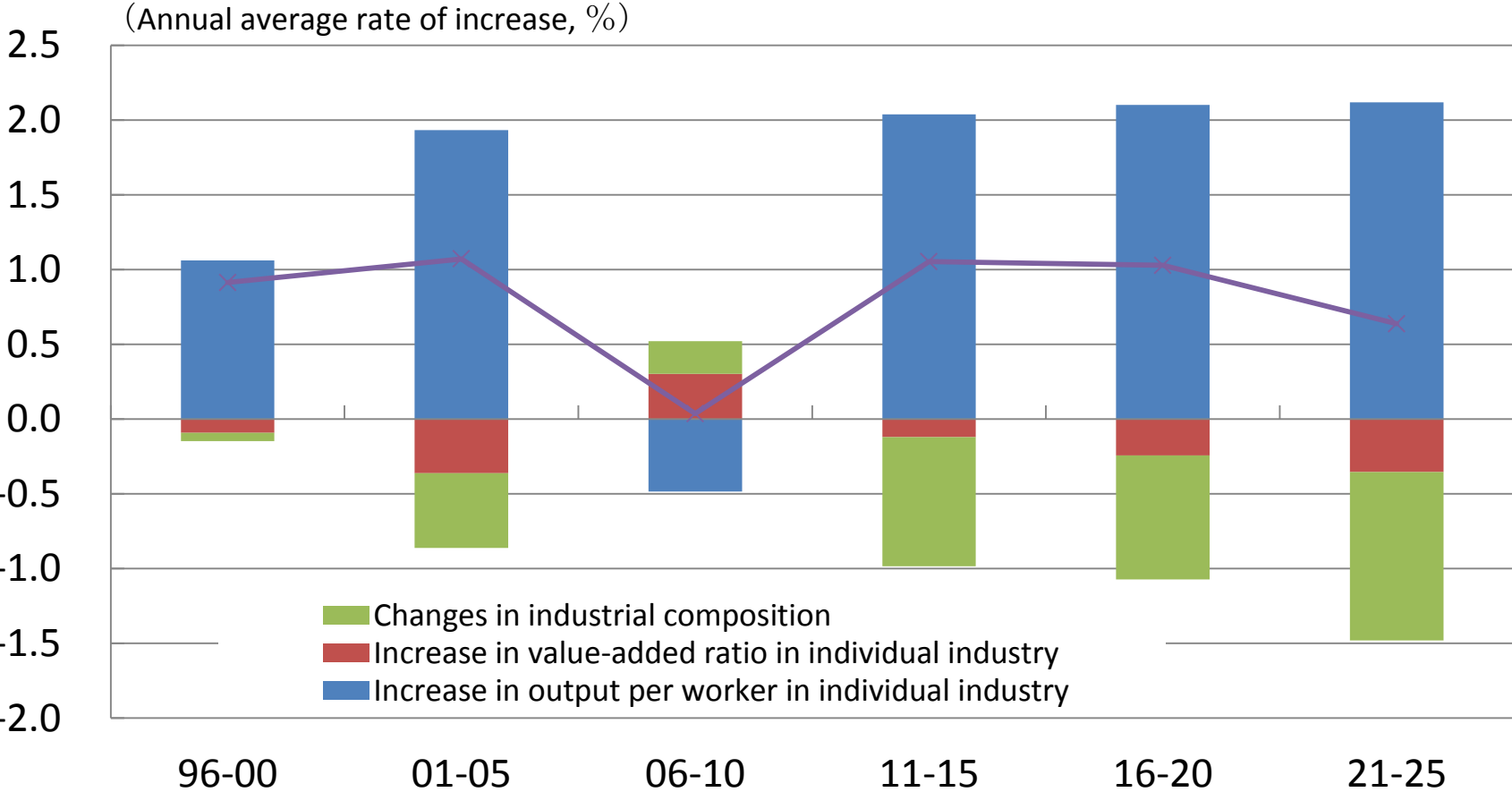
- On the other hand, employment in the manufacturing sector declined (meaning increase in labor productivity). Released labor force was absorbed by the growth in the services sector.
- Moreover, the rapid appreciation of the yen exerted a significant adverse impact on the economy that exceeded the speed of market adjustment and policy response. It has provided upward pressure on unemployment.

Longer-Term Implications

- Over the longer-term, especially when the rapid appreciation of the yen is alleviated, the adjustments can be expected to take place so that more balanced macroeconomic condition is restored.
- However, because of the aging and decline in population, the growth in Japanese total GDP is expected fall in the longer-term.
- Moreover, if Japanese competitiveness remains low, larger share of production is going to take place in the services sector where labor productivity is lower than the manufacturing sector (Figures 1&2*). As a consequence per capita GDP growth rate is also going to stay low. This is a great concern for the welfare of the Japanese people.

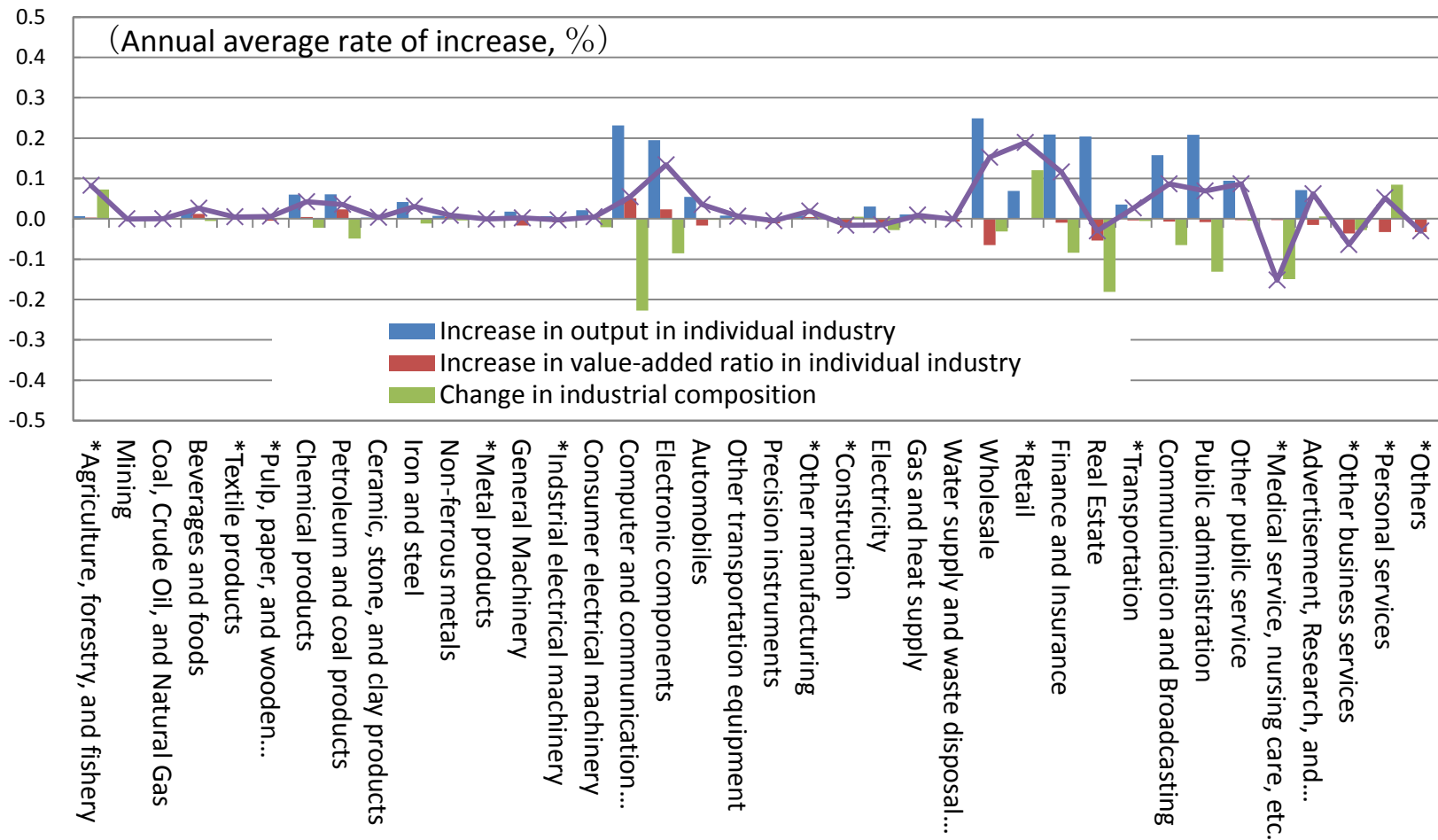
* Projections are taken from Japan Center for Economic Research, Medium-Term Forecasts for FY2012-2025, December 2012. They do not include impacts of the policies suggested below.

Figure 1. Projection of Changes in Labor Productivity



(Source) Japan Center for Economic Research, *Medium-Term Forecast for FY2012-2025*, December 2012.

Figure 2. Contributions to the Changes in Labor Productivity (2016-2020)



(Note) Industries with * indicate that their labor productivity is less than the macro-average labor productivity.

(Source) Japan Center for Economic Research, *Medium-Term Forecast for FY2012-2025*, December 2012.

Alternative Scenarios

Alternative Scenarios

- A: Alleviation of hollowing-out pressures by depreciation of the yen
- B: Increase in exports by improvement in competitiveness of goods
- C: Increase in exports by improvement in competitiveness of services
- D: Increase in factor income by growing receipts from abroad
- E: Increase in output capacity of high-value added sectors by receiving more foreign workers

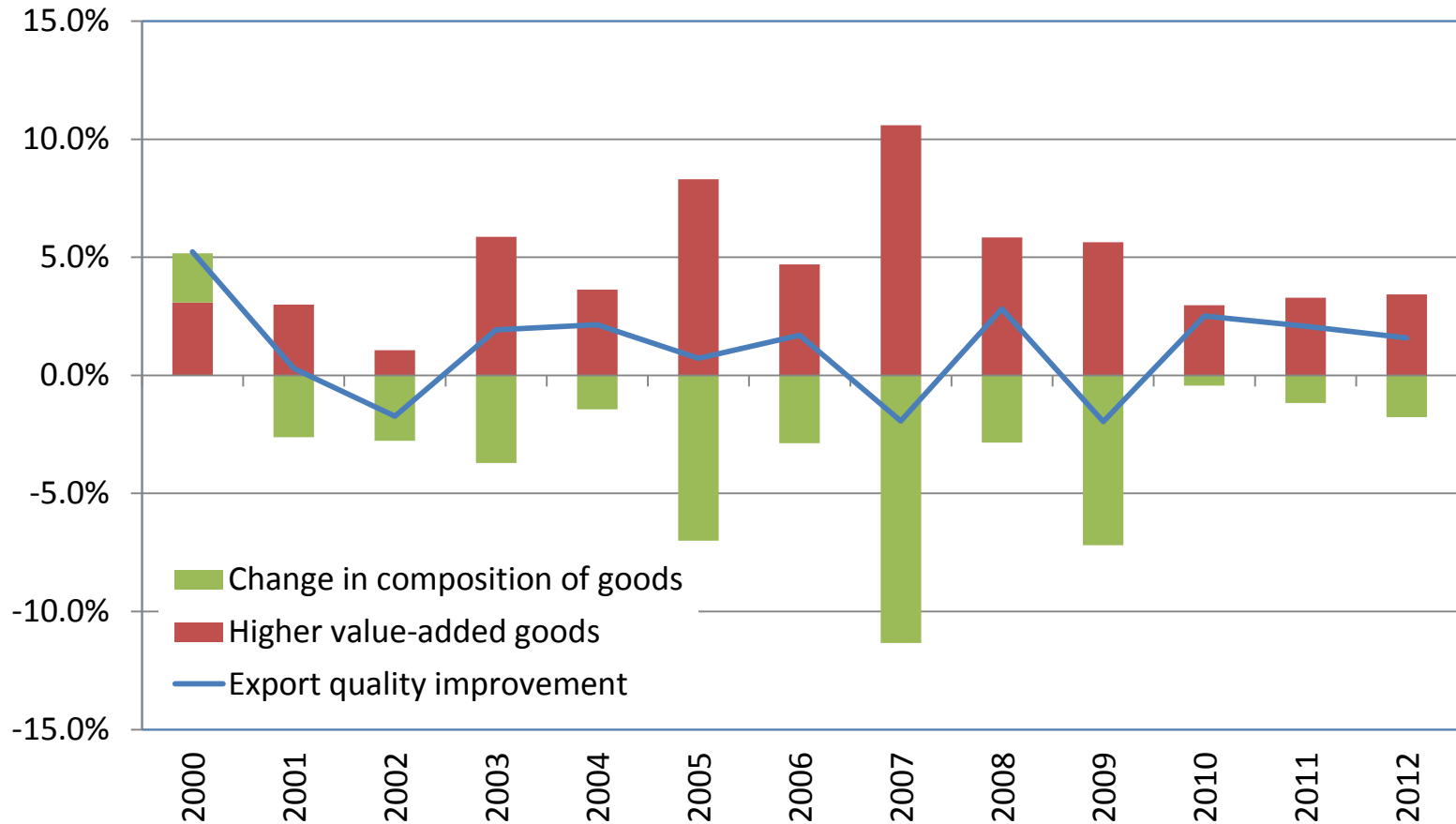
Scenario A

- Depreciation of the yen could take place as a result of the overshooting of appreciation in the recent past. (It has already taken place since last December.)
- However, there are factors that provide upward pressure on yen:
 - Deflation
 - Current account surplus
- Moreover, newly industrialized economies will continue to improve their competitiveness.
- This scenario may offer only a short breathing space.

Scenario B

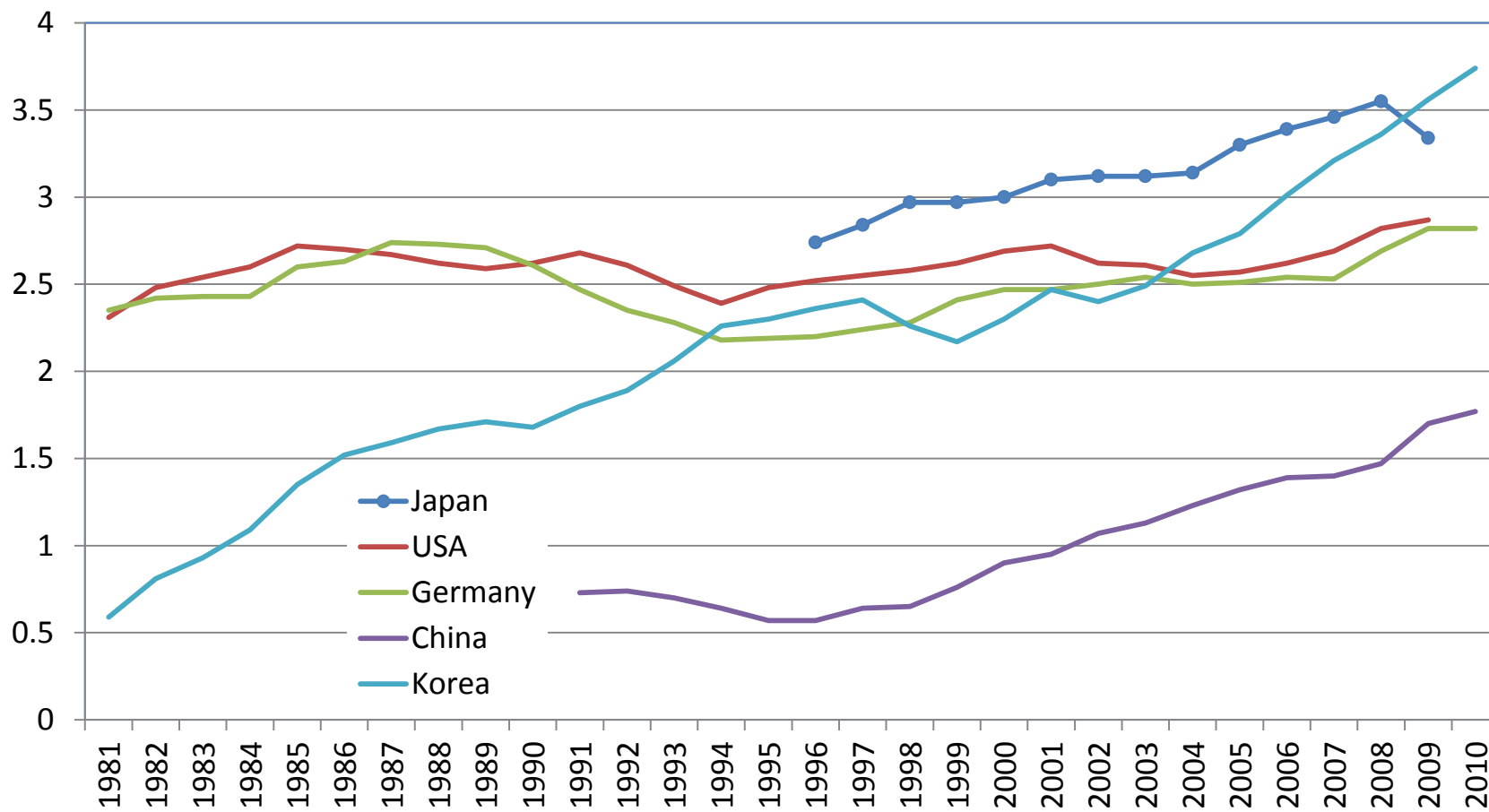
- Improvement in the competitiveness of the manufacturing sector could be provided by product innovation (allowing to compete by quality and uniqueness) rather than by process innovation (beneficial for price competition). Past record shows that exports have shifted to higher value-added goods (Figure 3).
- However, Japan's national innovation system (once regarded as the best practice) cannot meet the current needs.
 - Rapid increase in R&D investment in Korea and China (Figure 4)
 - Widening technology gap in biotechnology (Figure 5)
- New national innovation system require;
 - Shift from in-house R&D based on initiatives from production lines to investment in out-of-the-firm R&D ventures.
 - Requires changes in the systems of employment (e.g. more flexible labor market) , education (e.g. more resources for basic science), and financial (more supply of risk money).

Figure 3. Export Quality Improvement



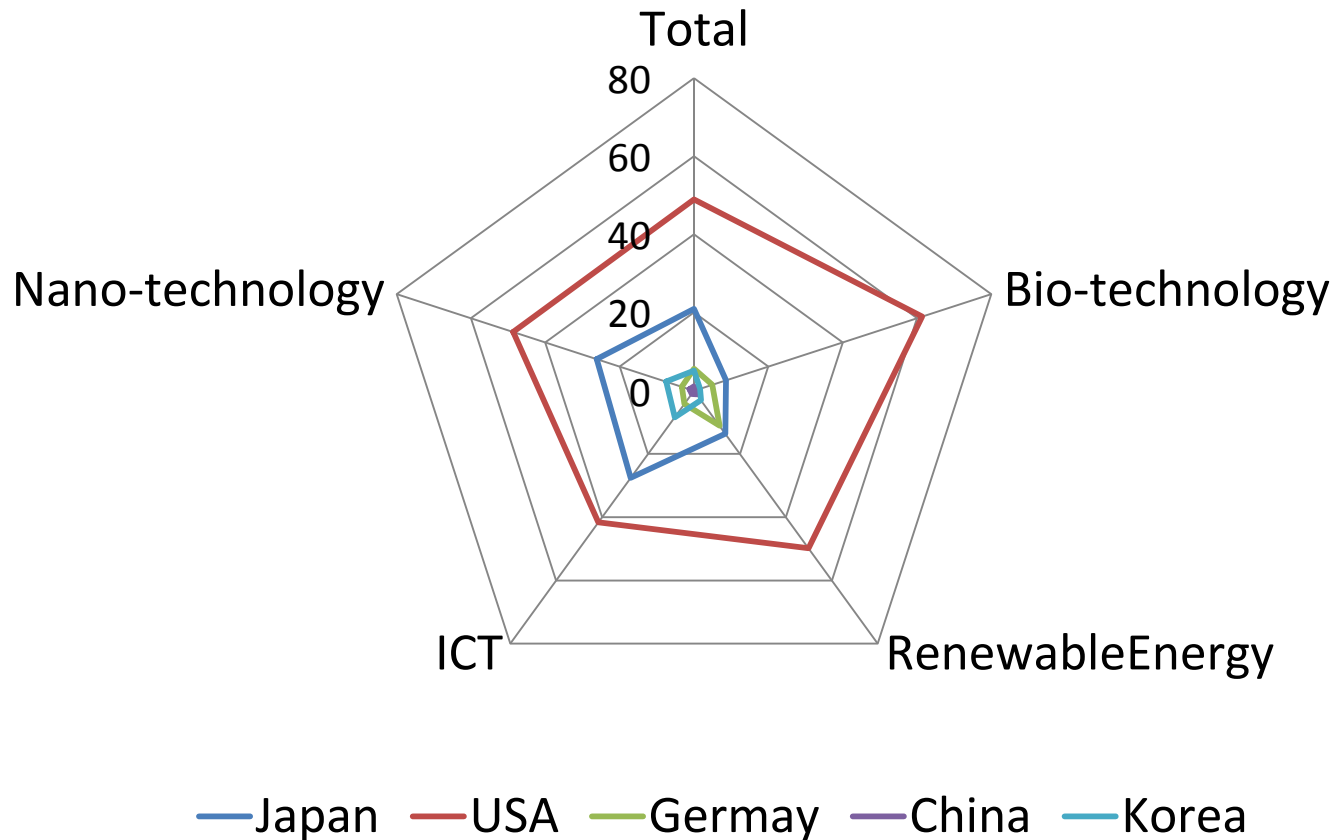
(Note) Export quality is measured by the ratio of unit-value of index exports (Paasche index supplied by the trade statistics), and export price index (Laspeyres index supplied by the Bank of Japan).

Figure 4. R&D Expenditures (Ratio to GDP)



(Source) National Institute of Science and Technology Policy, *Japanese Science and Technology Indicators 2012*, August 2012.

Figure 5. Registered Patent at U.S. Patent and Trademark Office (Share by country, average of 2008-2010)



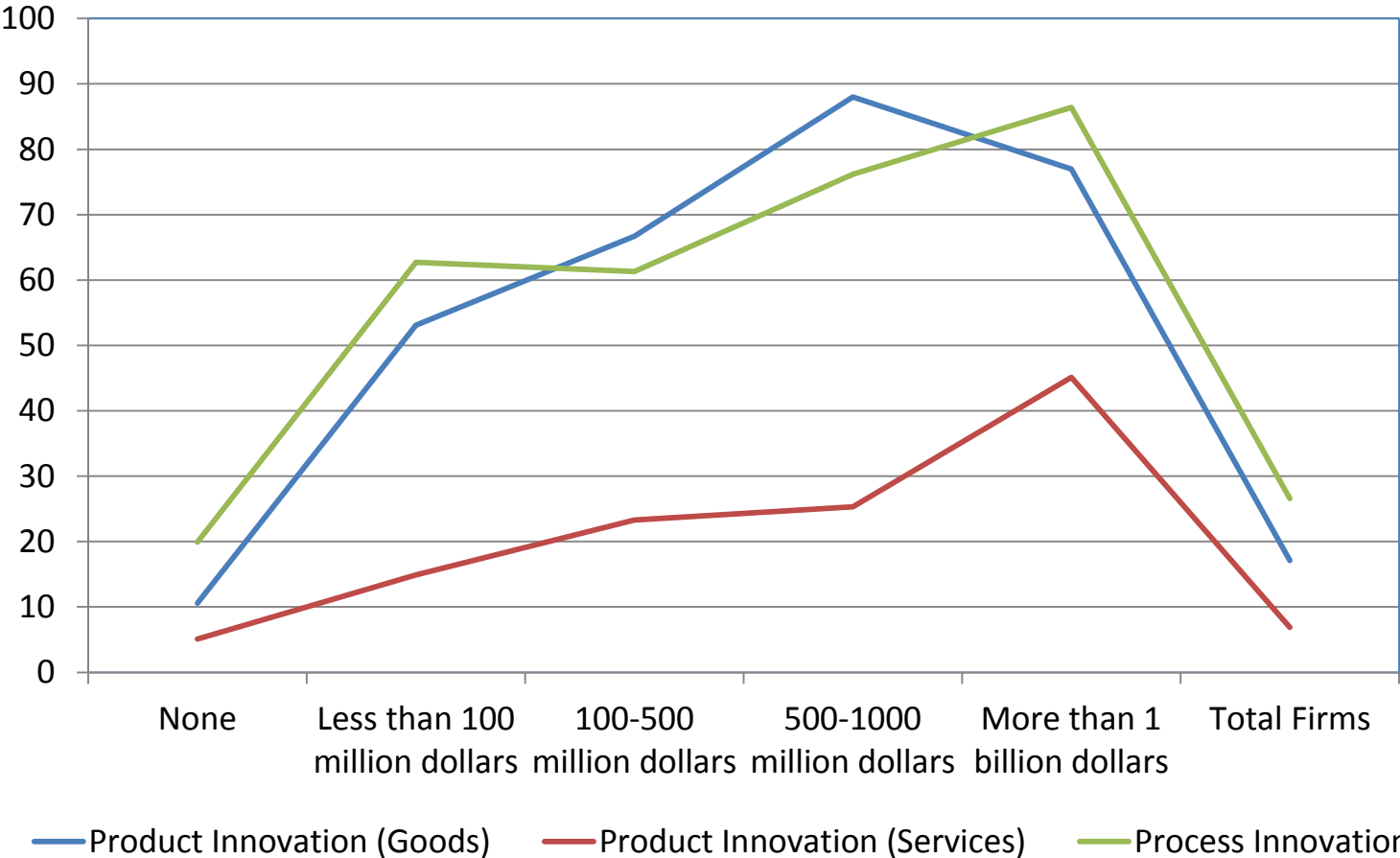
(Source) National Institute of Science and Technology Policy, *Japanese Science and Technology Indicators 2012*, August 2012.

Scenario C

- Improvement in competitiveness could also take place in services as a result of product innovation.
- However, Japan's national innovation system does not meet the needs in this area as well.
 - Product innovation is not so successful in services (Figure 6).
- Export of technology service is one promising area (Figures 7&8). However, overhauling of national innovation system is necessary to maintain the lead in technology (as mentioned earlier).

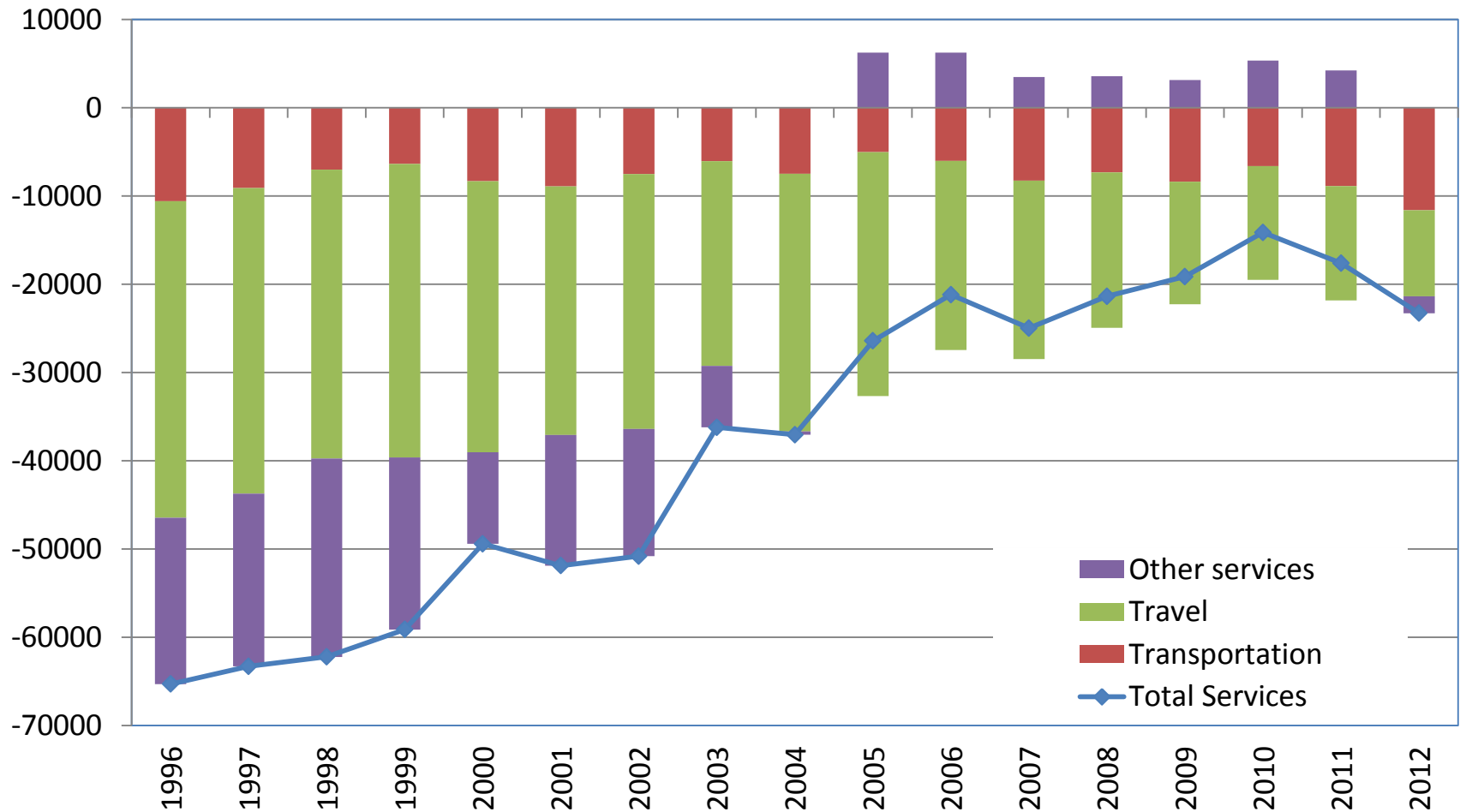
Figure 6. Realization of Innovation

Difference by amount of R&D expenditures and innovation types



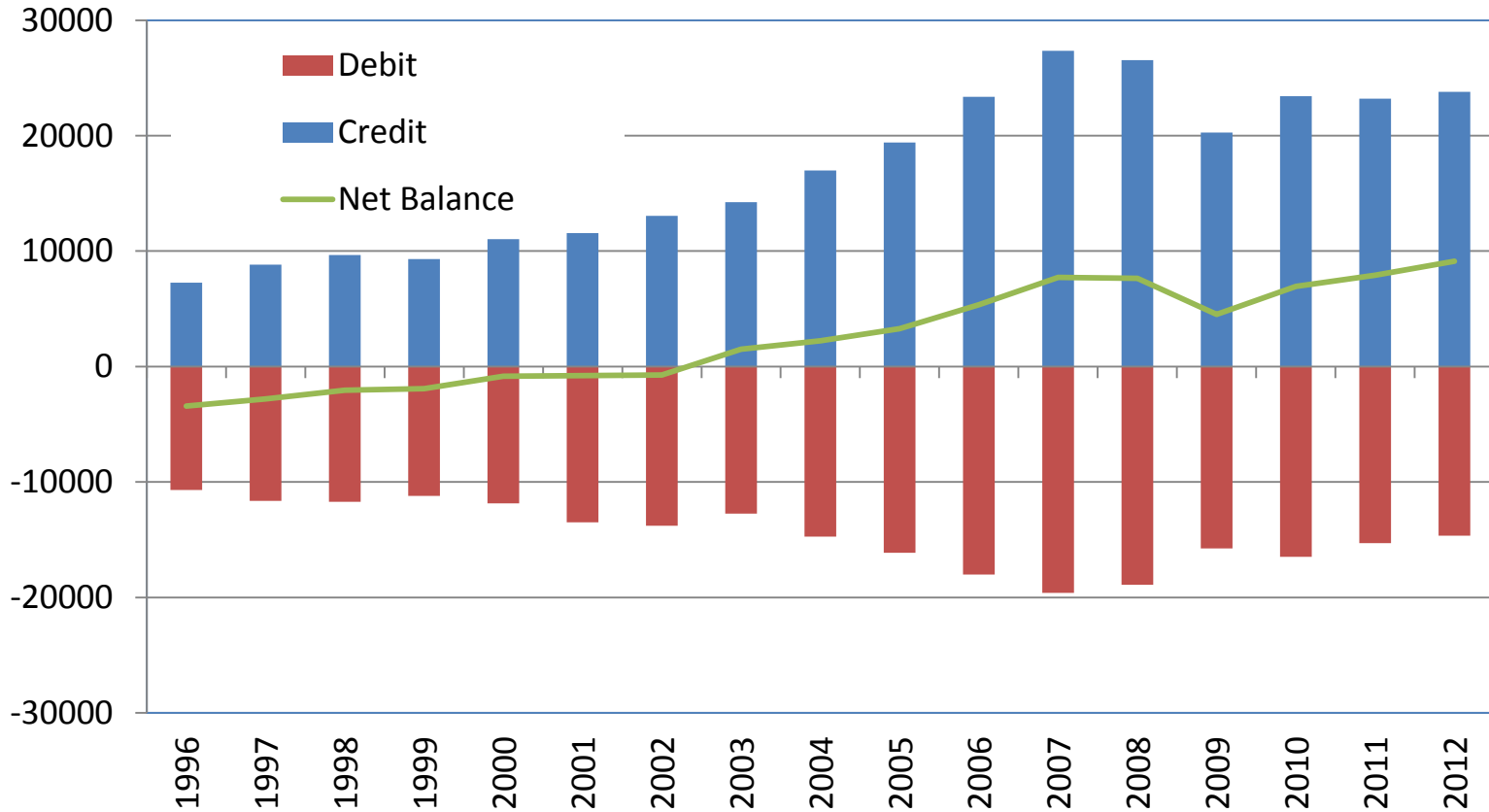
(Source) National Institute of Science and Technology Policy, *Japanese Science and Technology Indicators 2012*, August 2012.

Figure 7. Services Account Balance



(Source) Ministry of Finance and Bank of Japan, Balance of Payments Statistics.

Figure 8. Royalties and License Fees

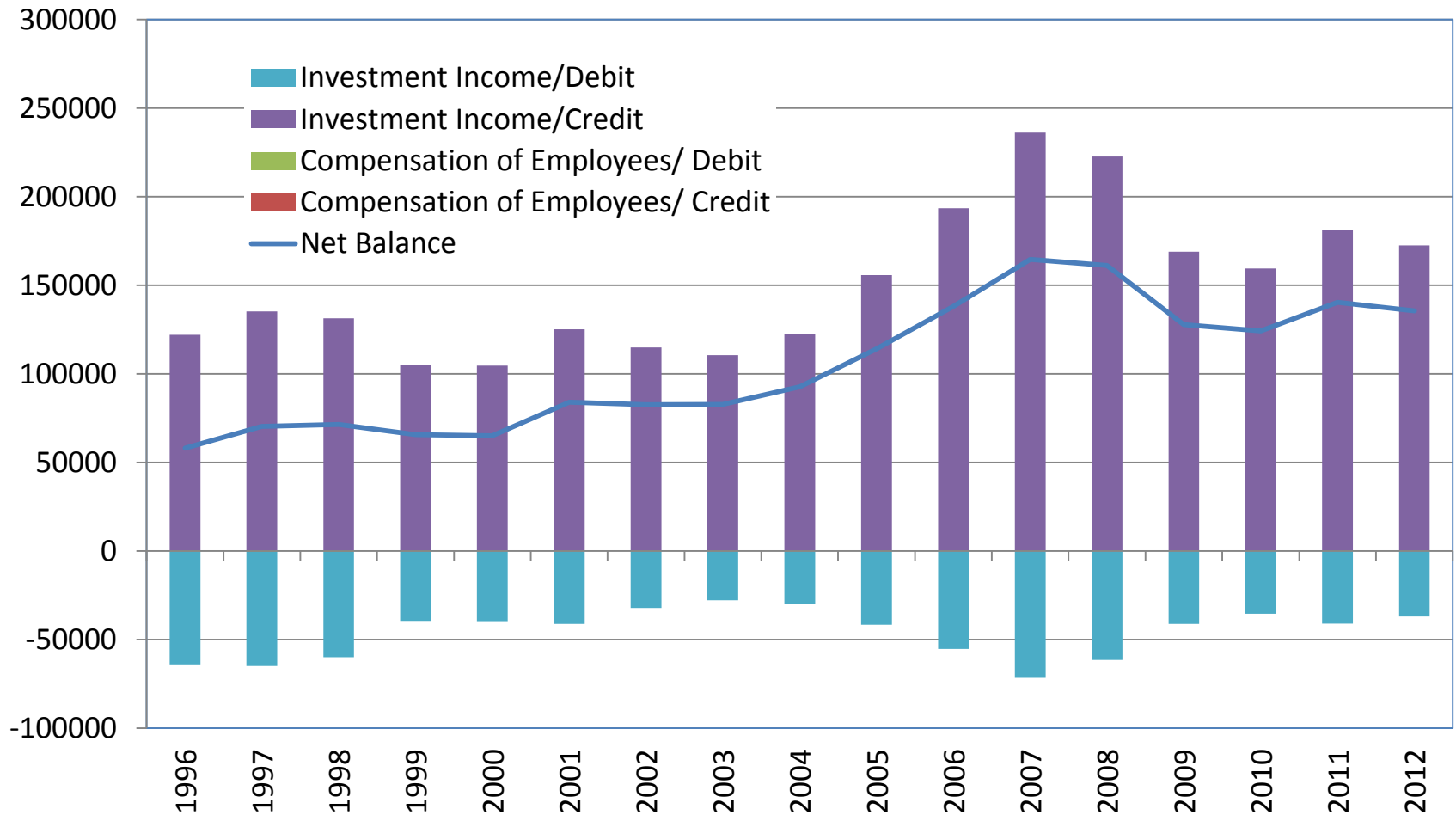


(Source) Ministry of Finance and Bank of Japan, Balance of Payments Statistics.

Scenario D

- Factor income receipts recorded in BOP statistics include reinvested earnings.
- Repatriation is only a part of the total receipts (amounting to about 50 percent).
 - Care is needed when GNI is made a target (Figures 9&10).
- Even if repatriated earnings increase, the impact may not be large when firms are cash-rich.

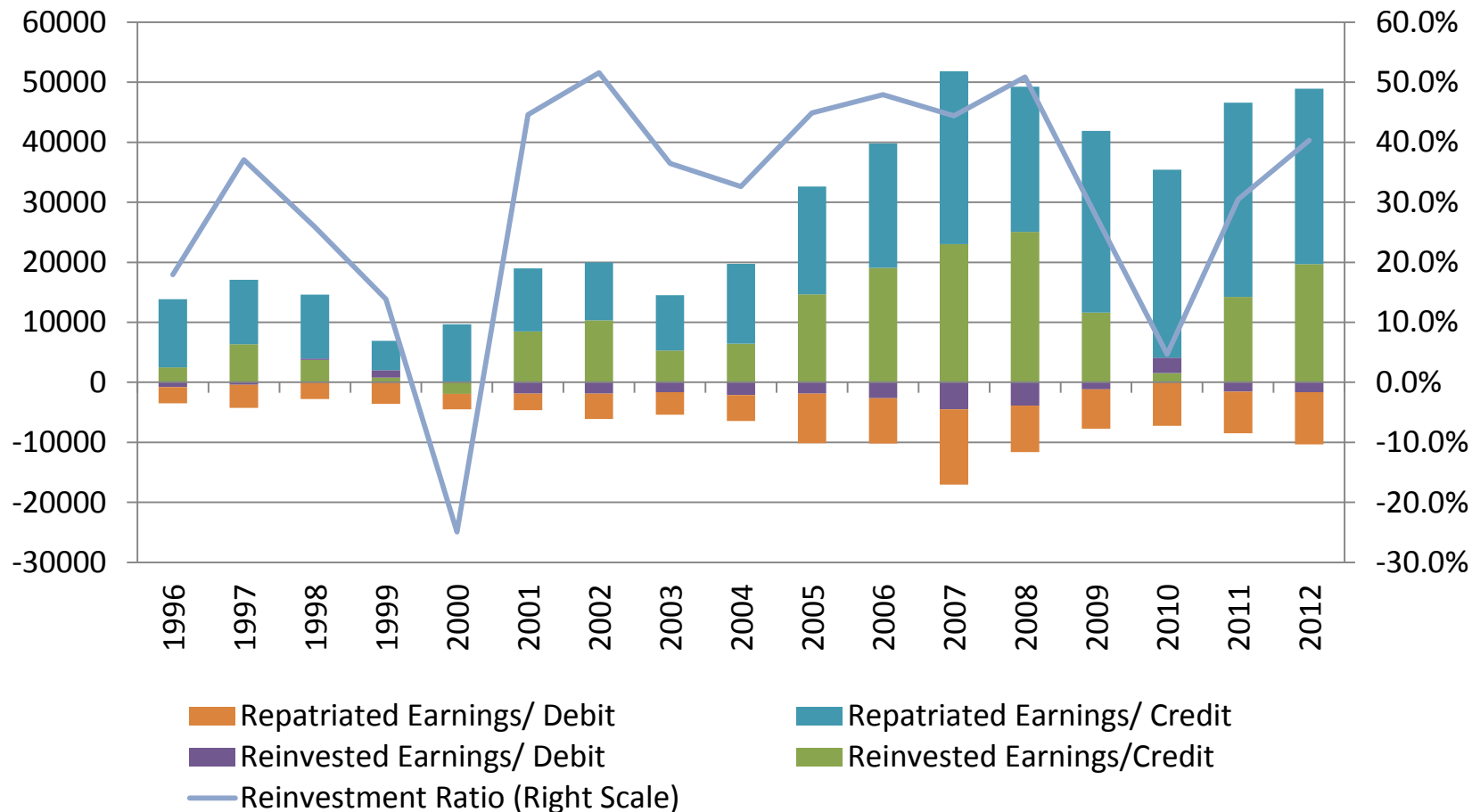
Figure 9. Income Account Balance



(Note) Compensation of employees is negligible in magnitude.

(Source) Ministry of Finance and Bank of Japan, Balance of Payments Statistics.

Figure 10. Direct Investment Income (Income on equity)

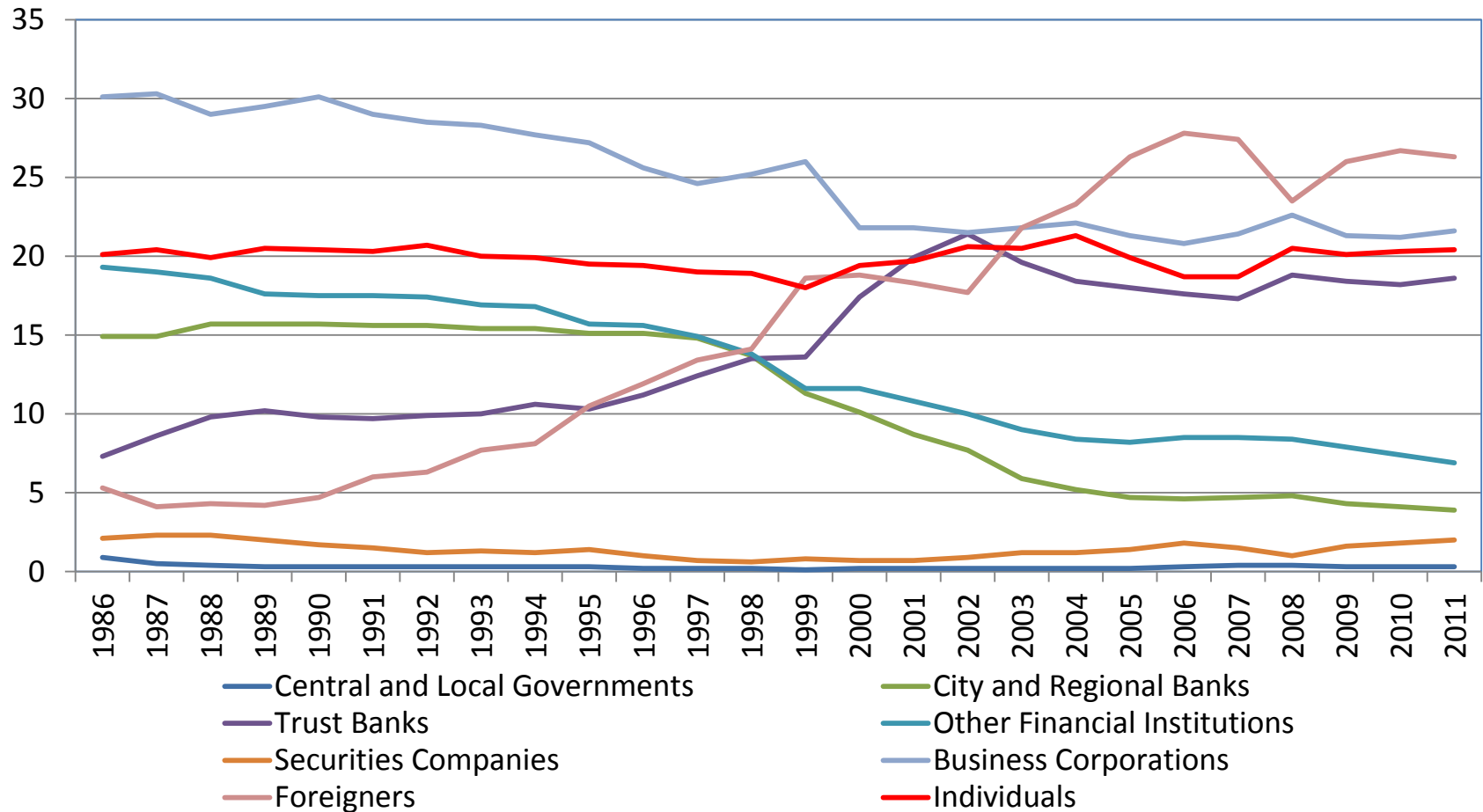


(Source) Ministry of Finance and Bank of Japan, Balance of Payments Statistics.

Scenario D (continued)

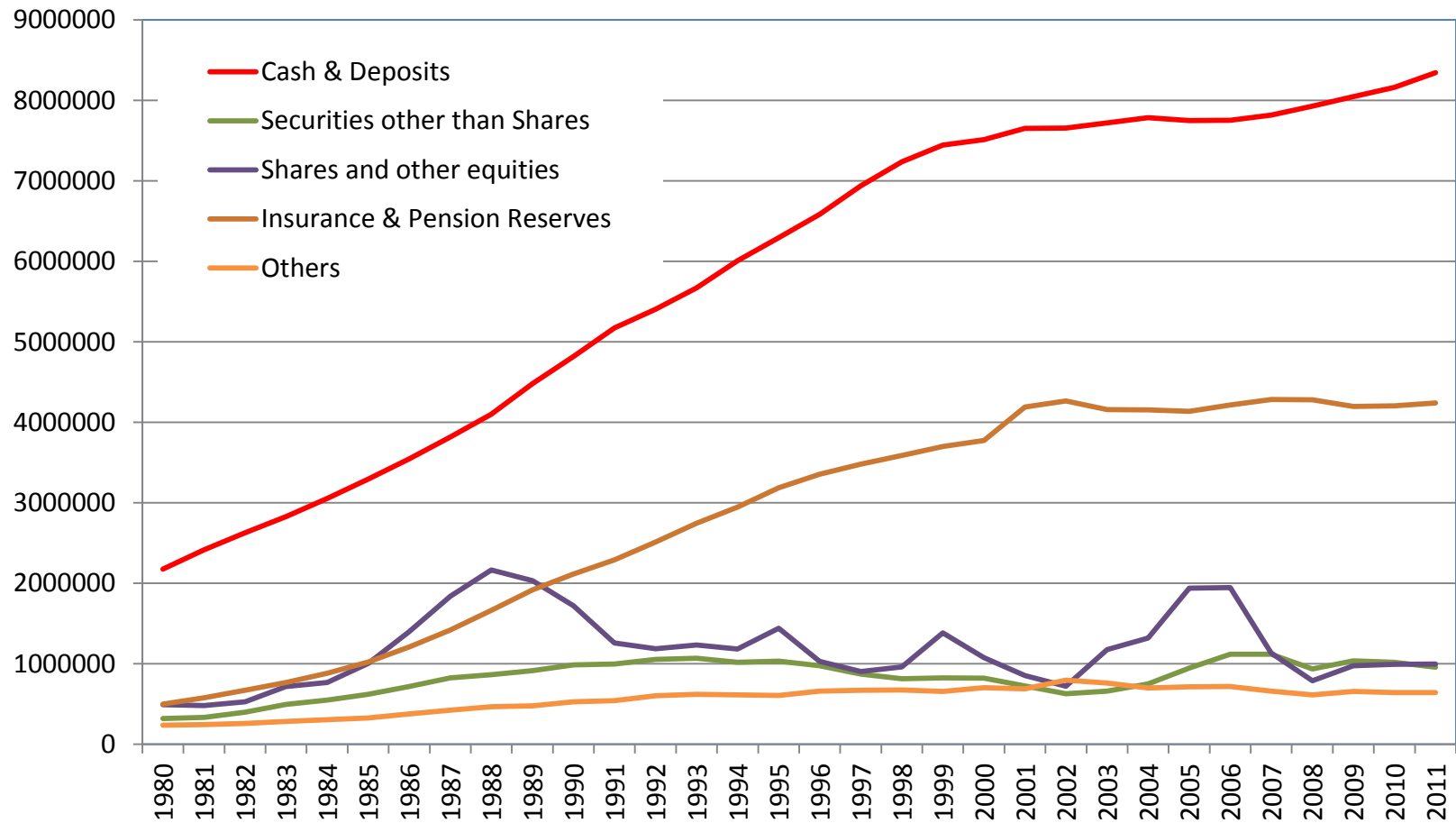
- More important may be the potential benefits to households (via dividend and interest payments, and capital gains) if they hold shares directly or indirectly (mutual funds) (Figure 11).
- However, Japanese households only a limited portion of their financial assets in shares.
 - Majority is held in bank deposits (Figure 12).
 - In turn, the banks are increasingly investing in government bonds rather than lending to firms (Figure 13).
 - Consequently, limited availability of risk money is going to venture firms.
- Flow of funds need to change.

Figure 11. Holders of Shares by Investors



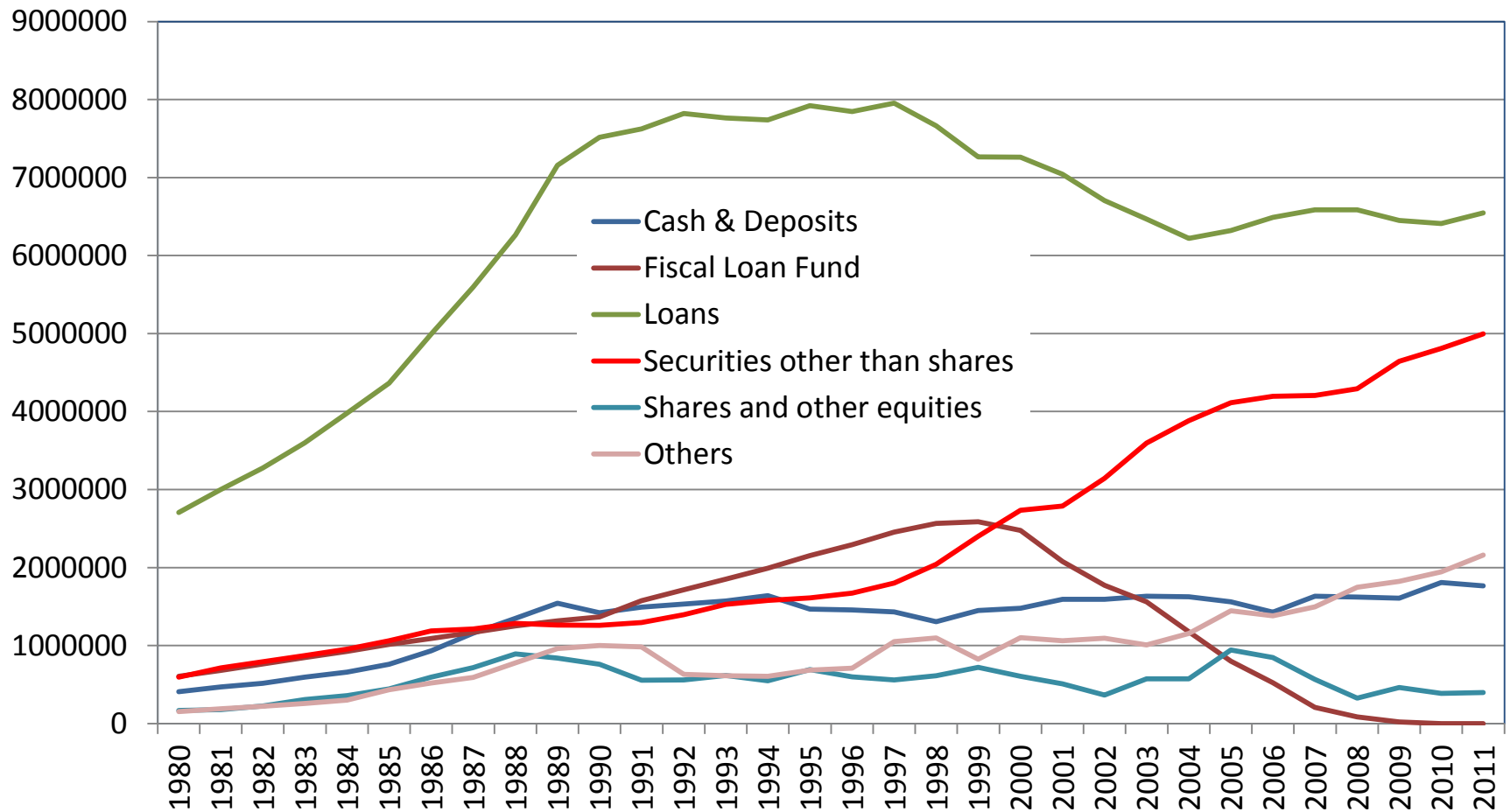
(Source) Tokyo Stock Exchange, Shareholding at Market Value by Investor Category.

Figure 12. Household's Financial Assets



(Source) Bank of Japan, Flow of Funds.

Figure 13. Commercial Bank's Assets



(Source) Bank of Japan, Flow of Funds.

Scenario E

- Aging of the population would increase demand for health and medical services. Since they cannot be imported, large portion of labor force has to engage in supplying such services.
- This leaves only a limited amount of labor force for high-productivity manufacturing sector. Consequently, macro labor productivity growth would fall.

Scenario E (continued)

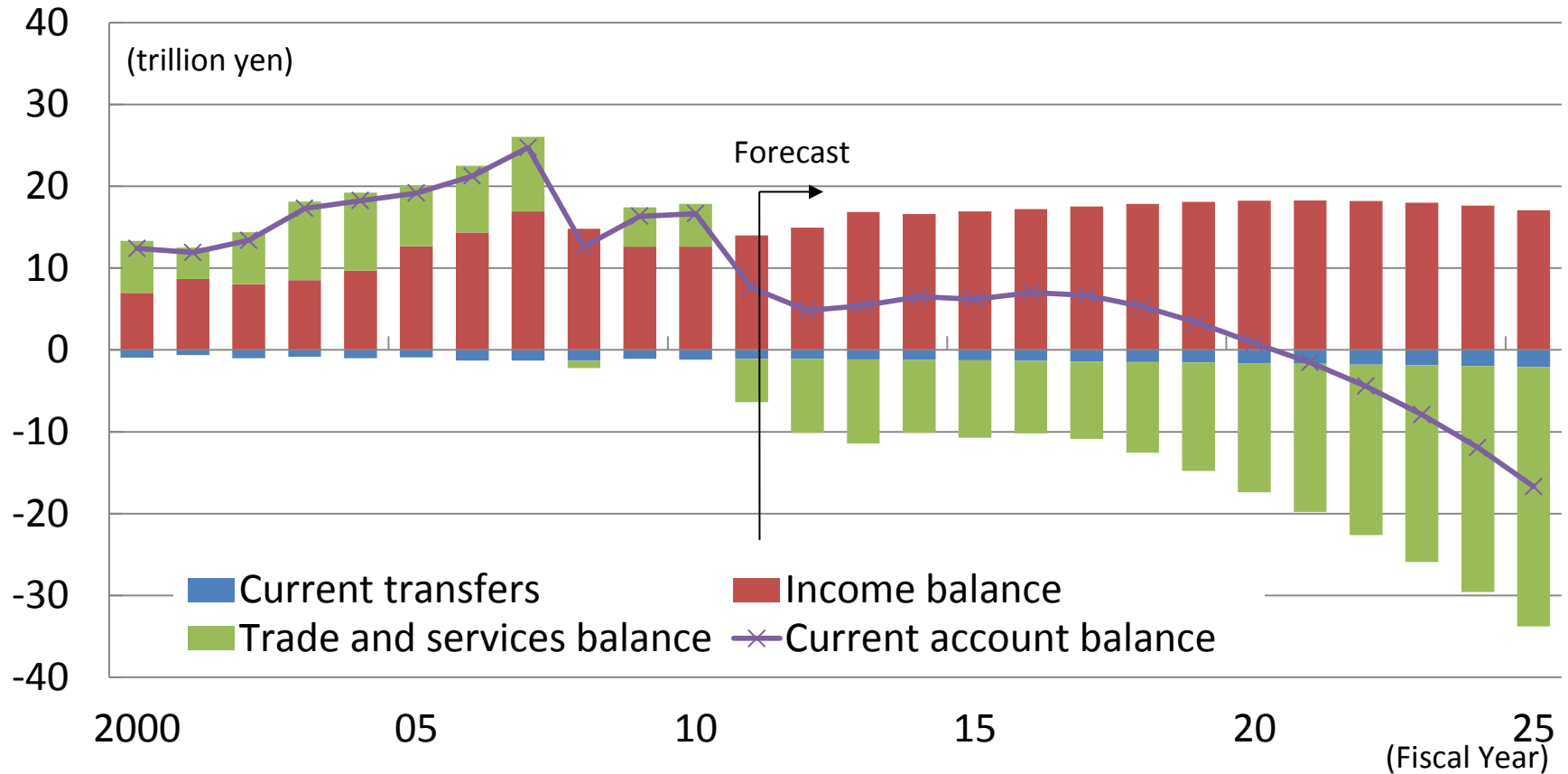
- The constraint could be alleviated if;
 - productivity in the services sector is raised by e.g. information technology, and/or
 - labor force is Increased by reversing the fertility rate trend (in the long-term) and accepting more foreign workers (in the short-term).
- In order to accept more foreign worker, Japan need to be an attractive destination. Japanese has to be more acceptable, and has to establish necessary infrastructure. Japan may miss the opportunity if late in taking action.

Additional Remarks

Prospects of the Japanese Current Account Balance

- Aging and decline of population in Japan is expected to lead to current account deficit in the medium-term.
 - cf. JCER Medium-Term Forecast (2012) (Figure 14)
- From broader perspective, Japan can be considered to be following a typical development stages of the balance of payments.
 - From *immature creditor-lender* to *mature creditor-lender*, and eventually to *creditor-borrower* (cf. *Crowther* (1957))

Figure 14. Projection of the Current Account Balance

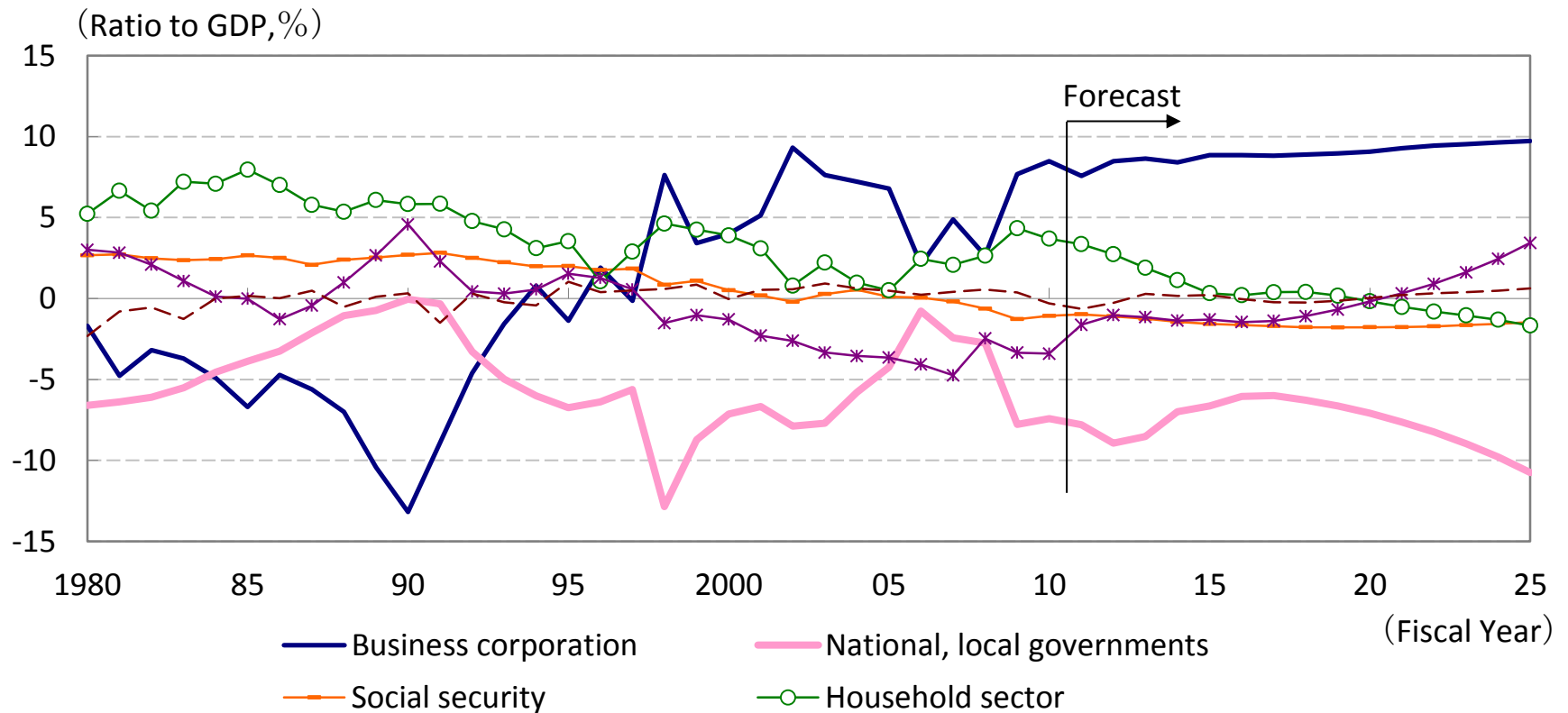


(Source) Japan Center for Economic Research, *Medium-Term Forecast for FY2012-2025*, December 2012.

Implications of the Scenarios for the future of Current Account

- A&B: Stronger goods exports
 - Recover surplus in trade account, and maintain current account surplus?
- C: Stronger services exports
 - Recover surplus in trade and services account, and maintain current account surplus?
- D: Stronger factor income receipts
 - Achieve larger surplus in incomes account, and maintain current account surplus?
- E: More foreign workers
 - Recover surplus in trade and services account, and maintain current account surplus?
- Whichever the case may be, it means that there is going to be a reversal of development stage in BOP (revert back to the stage of *immature creditor-lender*).
 - How is domestic investment and savings going to change? (Figure 15)

Figure 15. Projection of Net lending/borrowing by sector



(Source) Japan Center for Economic Research, *Medium-Term Forecast for FY2012-2025*, December 2012.

Thank you for your attention!

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and Keio University