



## Explanatory Notes on “SBI Research Review vol.7”

Minoru Masujima, Principal Research Fellow, SBI Financial and Economic Research Institute

Research Review vol.7 discusses the challenges facing Japan's economy and society through 2040. The Japan's economy and society are currently undergoing a period of significant change due to a combination of factors, including population decline, aging, digitalization, and decarbonization. It is not easy to predict even 10 years into the future. However, it would be worthwhile to take a long-term view, to anticipate the direction in which we should be heading, to review the necessary policies, and to present concrete strategies. In light of these concerns, the SBI Financial and Economic Research Institute established the "Study Group on the Economy and Society for 2040" (chaired by Professor Emeritus Heizo Takenaka of Keio University) in June 2024, and invited experts to exchange opinions<sup>1</sup>. Drawing on the insights gained from these deliberations, this issue presents a collection of five papers on the topics of digitalization, decarbonization, fiscal and monetary policy, and macroeconomics.

- Shinozaki Paper: Japan's Digital Economy Toward 2040: Perspectives on Technological Trends and Shifting International Relations
- Nomura Paper: Green Transformation: Policy Illusions and Business Reality
- Watanabe Paper: Normalization of Wages, Prices and Interest Rates: A Pathway to 2040
- Doi Paper: Japan's Tax and Fiscal Policies toward 2040
- Masujima and Namba Paper: Economic and Fiscal Outlook for 2040: An Assessment of Intergenerational Inequality — Evaluation Using the SBI-FERI Economic and Fiscal Model —

During the roundtable discussion, the members of the Study Group discussed issues that should be further explored in the future.

1: An overview of this study group has been published as part of the SBI Financial and Economic Research Institute's web report series “The Economy and Society for 2040”.

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## Shinozaki Paper

As the population declines and supply constraints intensify, digitalization is emerging as a key factor in enhancing growth potential. Based on technological trends and shifting international relations, the Shinozaki Paper examines the potential and challenges of the Japanese economy and looks ahead to the economic society of 2040.

From a retrospective analysis, digitalization has advanced in earnest as we have enjoyed the peace dividend following the end of the Cold War and as today's economy has been shaped by the pursuit of optimal global resource allocation, has been formed. Achieving economic growth through digitalization requires not only "investment in technology" but also "investment in reform (investment in intangible assets)," which includes organizational reform, human resource development, and a comprehensive review of regulations and systems. Lacking the latter, the Japanese economy was unable to keep up with the wave of digitalization and fell into the low-level equilibrium of the "lost 30 years".

In thinking about the future, it is critical to recognize the profound changes in the global environment. As peace dividends begin to diminish and value conflicts intensify, the supply chains are becoming more transparent, and companies are under pressure to allocate resources (i.e., reorganize the supply chain) in ways that are both efficient and fair and ethical. In addition, the impact of digitalization in the real world, such as the Internet of Things (IoT), robotics, and electric vehicles (EVs), is creating new growth opportunities, leading to a reassessment of Japan's potential and an increase in foreign direct investment in the country. Turning this trend into a "big push" has the potential to catalyze a resurgence in the Japanese economy, lifting it out of its current state of low-level equilibrium.

However, Shinozaki emphasizes that in order to move to a higher equilibrium and achieve autonomous growth, it is imperative to comprehensively assess and reform various mechanisms, particularly those that promote the emergence of ICT-enabled businesses using artificial intelligence (AI).

## Nomura Paper

The government's goal is to improve competitiveness by implementing GX (green transformation). However, as the Nomura paper points out, the necessary conditions for achieving this goal have not been met. The paper examines the current circumstances and challenges associated with Japan's decarbonization policy and how Japanese companies should respond to GX.

The author assesses that the previous low-carbon and decarbonization policies have deviated from being designed based on economic rationality to being based on political will, thus hindering economic growth rather than enhancing competitiveness. In the 2000s, globalization progressed, but there were significant disparities among major industrialized countries in their

targets for reducing greenhouse gas emissions. As a result, the phenomenon of "carbon leakage"-the relocation of production from high-burden countries (such as Japan and Europe) to low-burden countries (such as China)-became more pronounced, creating a contradiction in which overall global CO<sub>2</sub> emissions increased. Since the late 2010s, decarbonization policies in developed countries have accelerated significantly, and in leading countries such as Germany and Japan, the output of energy-intensive manufacturing industries has declined and hollowing out has progressed.

At present, the cost of decarbonization technology remains high. Some Japanese companies will temporarily benefit from the demand created by decarbonization policies, but it is noted that sustained growth in actual demand is not yet expected due to the manifestation of the negative effects of decarbonization policies and policy changes in countries such as the United States. As the demand created by past policies declines, there is concern that the introduction of high-cost technologies will reduce firms' productivity and further hollow out the industry.

This paper proposes a shift from "mitigation" policies, which aim to reduce CO<sub>2</sub> emissions, to "adaptation" policies, which contribute to the revitalization of economic activity at low cost. It argues that Japan needs to undertake a fundamental review of its decarbonization policies, and that companies need to acknowledge the uncertainties surrounding these policies and pursue balanced management strategies.

## Watanabe Paper

Achieving the desired economic society in 2040 depends on eliminating chronic deflation and facilitating the normal functioning of wages, prices, and interest rates. The Watanabe paper presents an outlook that wages, prices, and interest rates will normalize by 2040 after 30 years of stagnation.

The normalization process is expected to unfold in two phases. The first phase is from spring 2022 to early 2025. Over the past three years, the report judges that the normalization of nominal variables has progressed. Specifically, consumers' inflation expectations and tolerance for inflation have risen, and firms have successfully passed on price increases, resulting in the largest wage increases in the past 30 years. The Bank of Japan has begun to raise its policy rate. The report identifies the challenge as fostering the consolidation of these trends.

In the subsequent phase, which is expected to last until 2040, the normalization of nominal variables will be extended to real variables, accompanied by the normalization of the price mechanism, the real exchange rate, and the public debt. In particular, it is assumed that the economy will regain its dynamism as the price mechanism normalizes and the efficiency of resource allocation increases, with prices, wages, and interest rates beginning to move. The analysis also predicts that as wages begin to rise in line with the increase in labor productivity, the pressure to weaken the yen will dissipate and the real exchange rate will normalize. At the same time, the "cheap Japan" phenomenon, characterized by Japanese wages and prices that

are too low relative to those in other countries, will also begin to unwind. In addition, it is assumed that inflation will lead to a decline in real government debt burden, thereby bringing about its normalization. It is further argued that this reduction in the burden of government debt should be used to normalize monetary policy, to finally end chronic deflation, and to raise official prices, including compensation for elderly care.

## Doi Paper

It is also important to review the tax system in response to structural changes in the economy and society as we move toward 2040. The Doi paper provides a comprehensive review of the tax reforms implemented in the 2010s, providing insights into the future direction of the tax system.

Tax reforms in the 2010s include an increase in the consumption tax rate, a reduction in the corporate tax rate, and a reduction in income tax deductions for high-income individuals. While the impact of these reforms on reducing income inequality has been modest, simulation analysis using a dynamic general equilibrium macroeconomic model suggests that they have contributed to improving economic welfare and reducing distortions in the allocation of resources across the economy. This phenomenon is attributed to a reduction in the corporate tax rate, which exerts a significant influence on the allocation of resources through corporate activity, and an increase in the consumption tax rate, which is comparatively more neutral with respect to the mechanisms of labor supply and capital accumulation.

Tax increases are expected to be necessary until 2040 to cover rising social security expenditures due to an aging society with a declining birth rate. The author argues that the tax system should be designed to minimize the negative impact on economic welfare because tax increases distort the allocation of resources. According to the analysis using the above model, it was confirmed that an early increase in the consumption tax rate would effectively mitigate distortions in resource allocation throughout the economy and reduce the impact on economic growth.

This also implies that a reallocation of tax revenue from income and corporate taxes to consumption taxes could mitigate the distortions caused by the existing tax system.

## Masujima and Namba Paper

The decline in the working-age population and the increase in the elderly population will accelerate by 2040, leading to more severe labor shortages and escalating social security costs. The Masujima and Namba paper examines measures to maintain economic growth and improve the sustainability of social security.

According to the simulation analysis, under current circumstances, the substantial burden will be passed on to future generations. Raising productivity and employment rates will not only

ensure economic growth and improve fiscal sustainability but will also be effective in correcting intergenerational imbalances.

However, the effectiveness of growth strategies remains uncertain and raising the employment rate may pose significant challenges. Conversely, the use of foreign labor is a viable option, and it has become clear that it will not only increase the growth rate and contribute to improving the country's public finances but will also have a significant impact on reducing the burden on future generations. Increasing the foreign population to more than 250,000 people would make it unnecessary to raise the employment rate significantly.

In order to arrest the rise in the ratio of medical benefits to GDP as the population ages, it is imperative to regulate health care spending to prevent an escalation in per capita medical costs driven by advances in medical technologies and treatments. This will not be easy, but sustained efforts to curb the growth of medical spending will be necessary to improve the sustainability of social security. This will also contribute to reducing intergenerational imbalances.

A number of issues need to be addressed to increase the participation of foreign workers and to ensure effective management of health expenditure. It is argued that this is an important policy option to consider in the context of Japan in 2040.

Looking at Japan's economic and social prospects in 2040, the country's future depends on its ability to address such interrelated challenges as population decline and aging, the advancing digitalization, and decarbonization. Maintaining the status quo will inevitably lead to Japan's economy entering a prolonged period of stagnation. To avert this potential scenario, the SBI Financial and Economic Research Institute will make policy proposals aimed at bold reform, while presenting the outlook for the economy and society in 2040.