

# Mizuho Economic Outlook & Analysis

## Japan's "New Form of Capitalism" and Human Capital Investment

Achieving a virtuous cycle of growth and distribution with JPY 4 trillion in annual human capital investment

May 20, 2022

Mizuho Research & Technologies, Ltd.

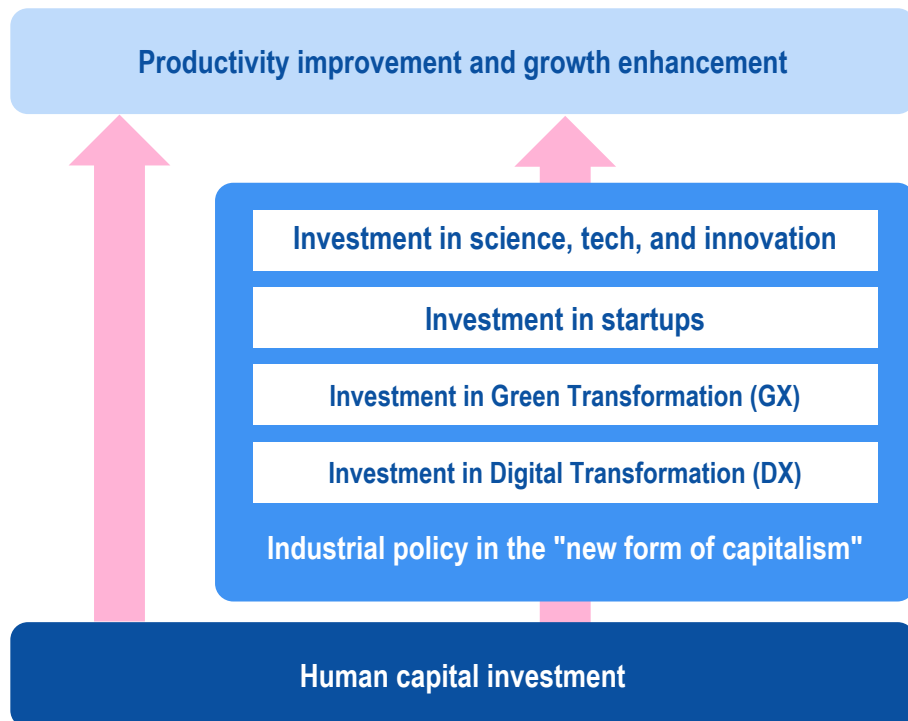
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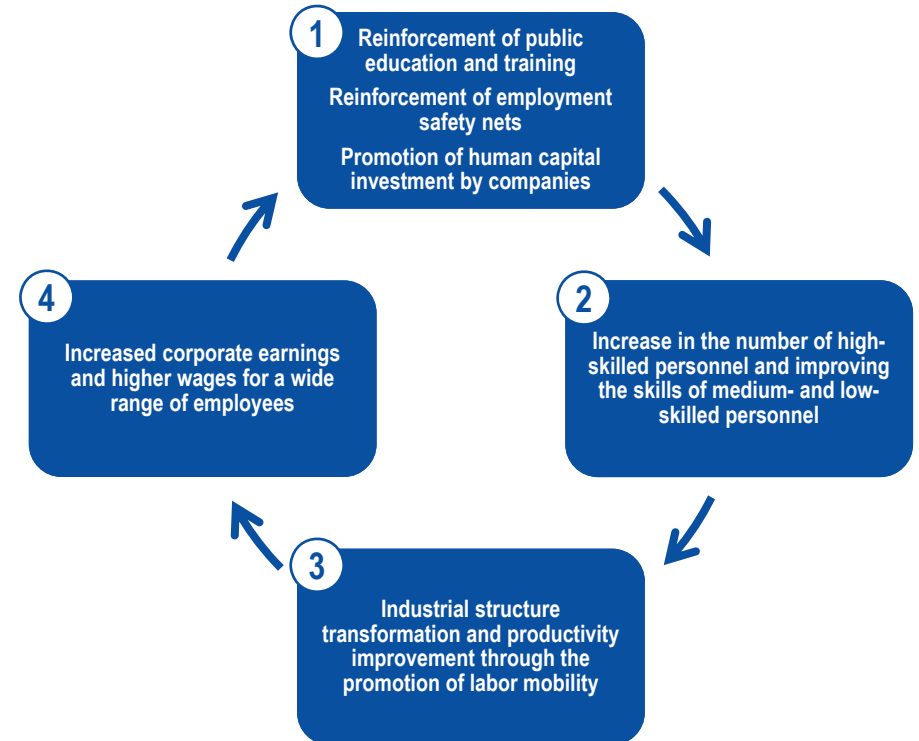
# Human capital investment: at the heart of "new form of capitalism"

- Prime Minister Kishida has positioned human capital investment at the heart of a growth strategy for "new form of capitalism."
  - The upskilling of workers through an increase in human capital investment will be the basis for other industrial policies.
  - The government has announced the establishment of a package of "investment in people" measures worth JPY 400 billion over three years.
- The policy-based expansion of human capital investment is important for launching a virtuous cycle in the economy via improved labor skills and increased corporate profits.
  - This provides an opportunity to resolve the endless debate over whether to invest in people first or corporate profits first.

## Positioning of human capital investment as a growth strategy



## Virtuous cycle of growth and distribution based on human capital investment



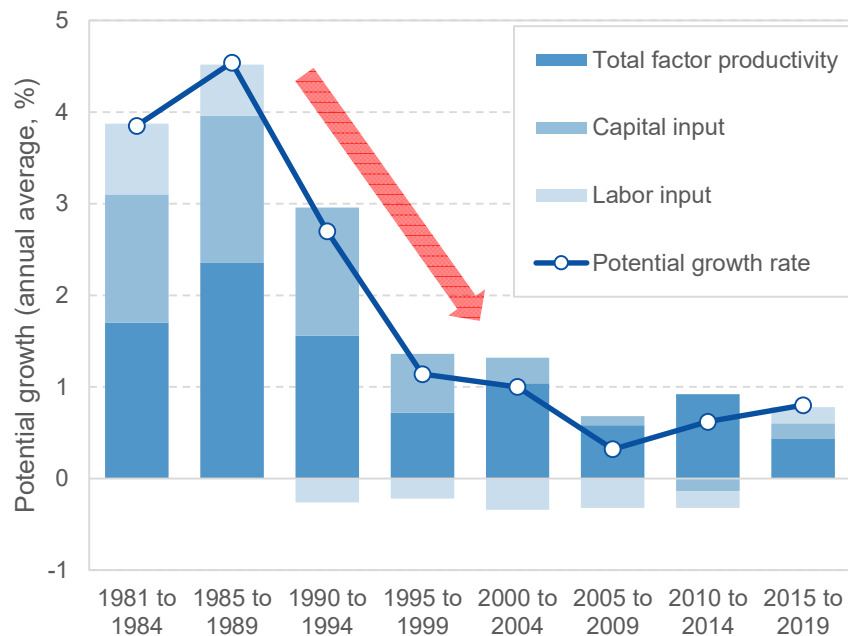
Source: Made by MHRT based upon "Prime Minister Kishida's Keynote Speech at the Guildhall" by the Prime Minister's Office and upon "Basic Policies for Economic and Fiscal Management and Reform 2022: Draft Proposal" by the Cabinet Office

Source: Made by MHRT

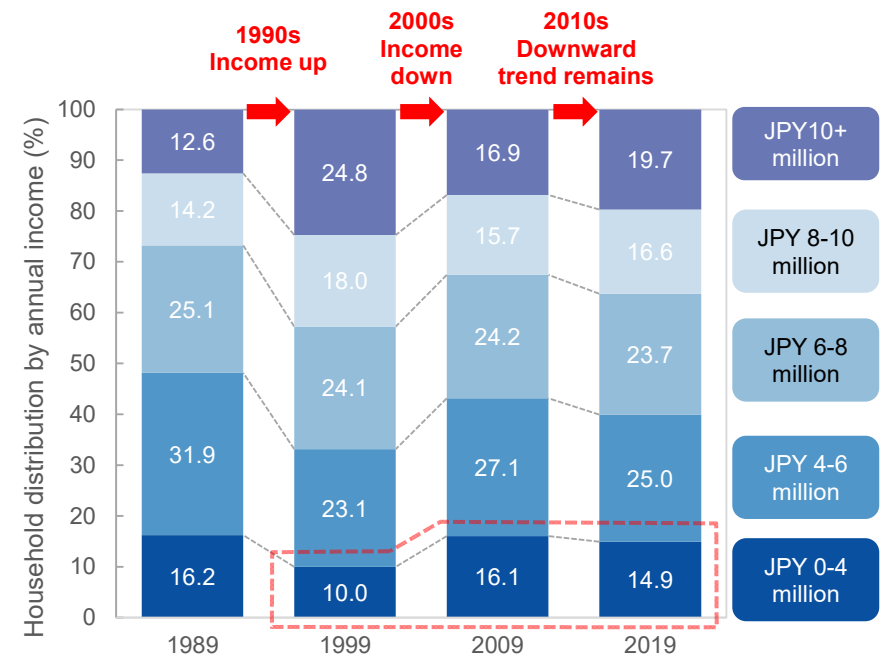
# Two challenges of the Japanese economy: "declining productivity" and "lower income"

- The potential growth rate of Japan declined sharply in the 1990s and 2000s and has remained at slightly less than +1% per year since then, presenting a challenge on the "growth" side.
  - In addition to the slowdown in capital input and the turning negative of labor input, Japan has also experienced a decline in the total factor productivity (TFP), which is a source of growth.
- The household distribution of labor income shows a rapid "shift to lower incomes" in the 2000s; presenting issues on the "distribution" side.
  - In the 2010s, the share of the low-income group (annual income JPY 0–4 million) remained almost the same. The share of the high-income group (JPY 10 million and up) increased slightly but has not returned to the level of the 1990s.

## Japan's potential growth contribution by item



## Distribution of households by annual income group among working families



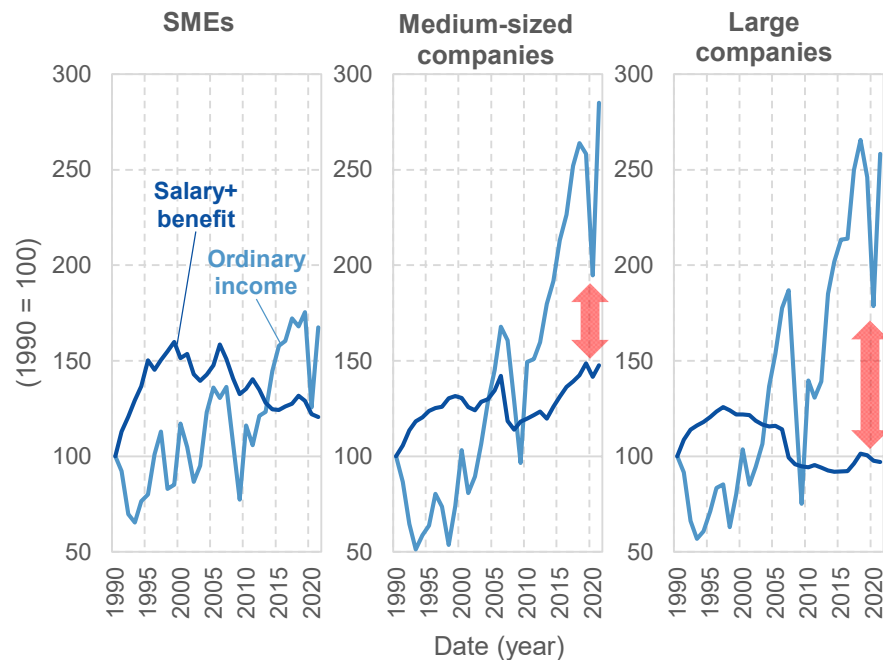
Note: Values of working households with two or more family members  
 Source: Made by MHRT based upon "National Survey of Family Income and Expenditure" by the Ministry of Internal Affairs and Communications

Source: Made by MHRT based upon "Potential Growth Rate" by the Cabinet Office

# Lower income slows consumption, creating a spiral that weighs on growth

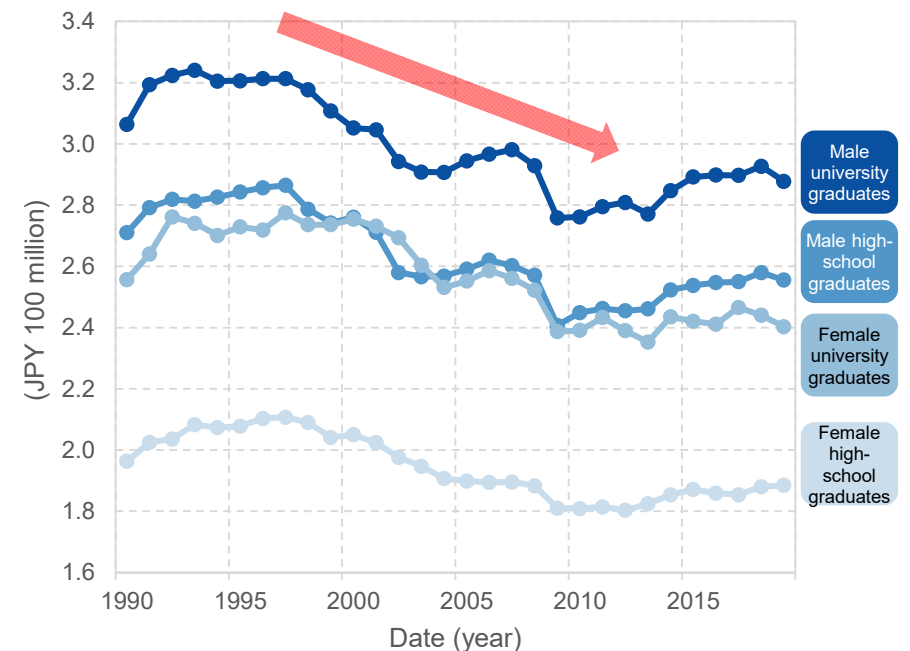
- Japanese companies saw significant improvement in ordinary income since the 2000s, while wage increase remains sluggish.
  - Personnel expenses for employees at large companies declined from the late 1990s to the late 2000s and then remained stagnant at the same level as in 1990.
- Lifetime wage estimates also declined from the 1990s to the 2000s.
  - Although wages recovered slightly in the 2010s, they are still far below the levels of the 1990s. Uncertainty about the future of the working-age population has not been dispelled, and the savings rate remains high, contributing to weak consumption.

## Ordinary income and employee labor costs of Japanese companies



Note: All industries (excluding finance and insurance); the salaries of directors of corporations are not included. SMEs are defined as having capital of JPY 10 million to less than JPY 100 million, medium-sized companies as having capital of JPY 100 million to less than JPY 1 billion, and large companies as having capital of at least JPY 1 billion.  
 Source: Made by MHRT based upon "Financial Statements Statistics of Corporations by Industry (Quarterly Result)" by the Ministry of Finance

## Lifetime wage estimates by gender and education

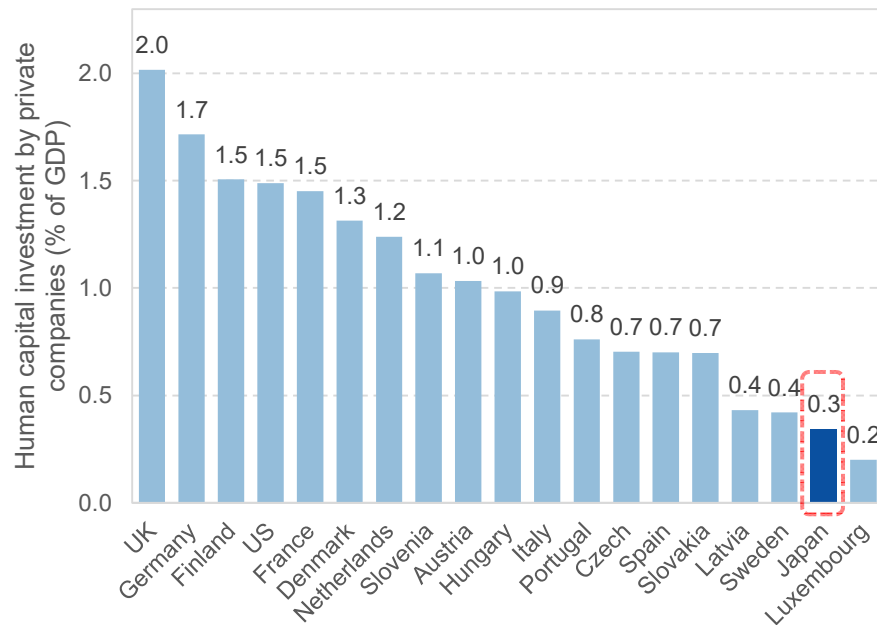


Note: Lifetime wages for same company type (until age 60, not including retirement benefits)  
 Source: Made by MHRT based upon "Useful Labor Statistics 2021" by the Japan Institute for Labor Policy and Training

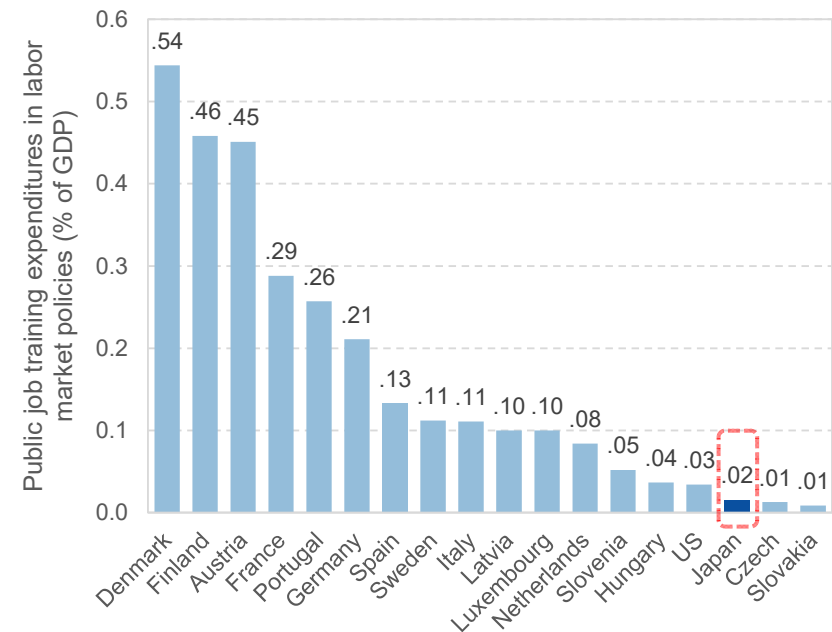
# Japan's few investment in human capital

- Human capital investment by the private sector in Japan (relative to GDP) is near the lowest among major developed countries.
  - Japan's private investment in human capital is one-sixth that of the UK, the country with the highest investment, and is even lower than in southern, central, and eastern Europe, which is/are generally considered to have a weak culture of lifelong education.
  - In the UK and the US, where employment mobility is high, the level of human capital investment by companies appears to be an important factor in attracting talented workers.
- Public as well as private investment in job training in Japan is not as large as in major developed countries.
  - The scale of investment in job training (relative to GDP) in top-ranked countries such as Denmark, Finland, and Austria is 20 to 30 times that of Japan.

**Private-sector human capital investment by country (% of GDP)**



**Public investment spending on job training by country (% of GDP)**



Note: Average for 2010–2018 (2010–2017 for the US only); private corporate sector (housing, public services, and unclassifiable excluded); human capital investment refers to the cost of training outside the workplace (OFF-JT) and does not include on-the-job training.

Source: Made by MHRT based upon "JIP 2021 Database" by the Institute of Economic Research and Hitotsubashi University and upon INTAN-Invest and EUKLEMS-INTANProd

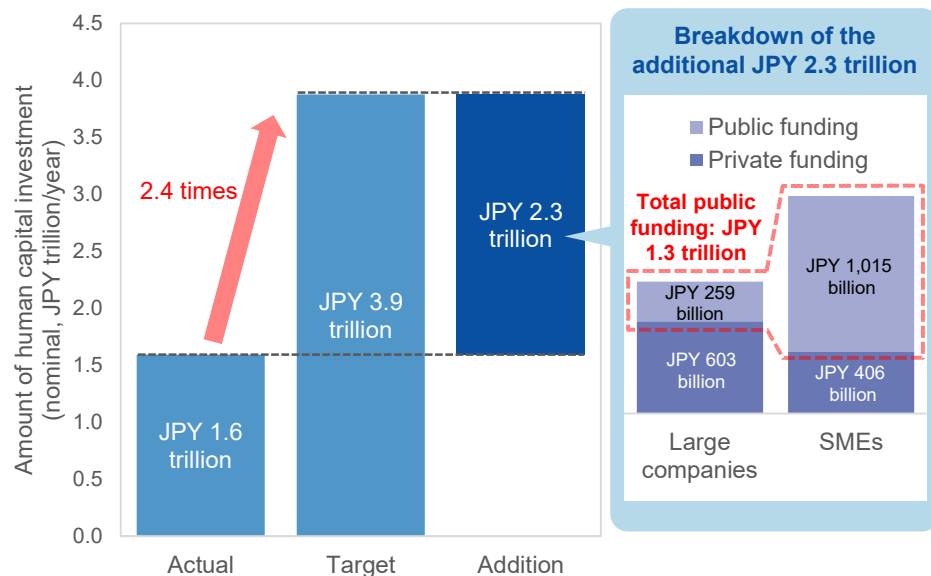
Note: Average values for 2010–2019; do data available for the UK; according to Sekiya (2019), Japan only reports the amount of spending on direct job training opportunities from public vocational training policies.

Source: Made by MHRT based upon "Public expenditure and participant stocks on LMP" by the OECD

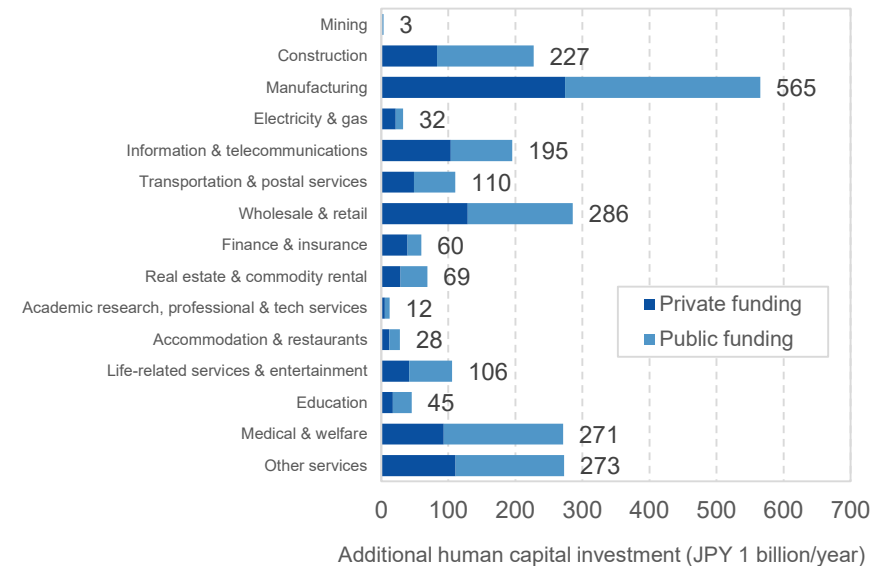
# JPY 4 trillion investment in human capital is required to boost growth

- To achieve a growth rate on par with Europe and the US by expanding human capital investment, JPY 3.9 trillion annual investment is needed from the public and private sectors (currently JPY 1.6 trillion).
  - We estimated the target amount of human capital investment (OFF-JT) to raise Japan's potential growth rate (0.7%) to the same level as Europe and the US (1.6%).
  - Of the additional JPY 2.3 trillion compared to the current level, JPY 1.3 trillion is funded publicly, while JPY 1.0 trillion is funded by the private sector. Public investment in education and training is currently about JPY 170 billion (including special accounts for employment insurance) and needs to be expanded more than 7 times, mainly via tax credits and subsidies for SMEs.
  - By industry, manufacturing, wholesale/retail, medical/welfare, construction, and information/communications are the largest additions.

## Estimated human cap. investment to achieve growth rates comparable to Europe and the US



## Breakdown of additional human capital investment by industry



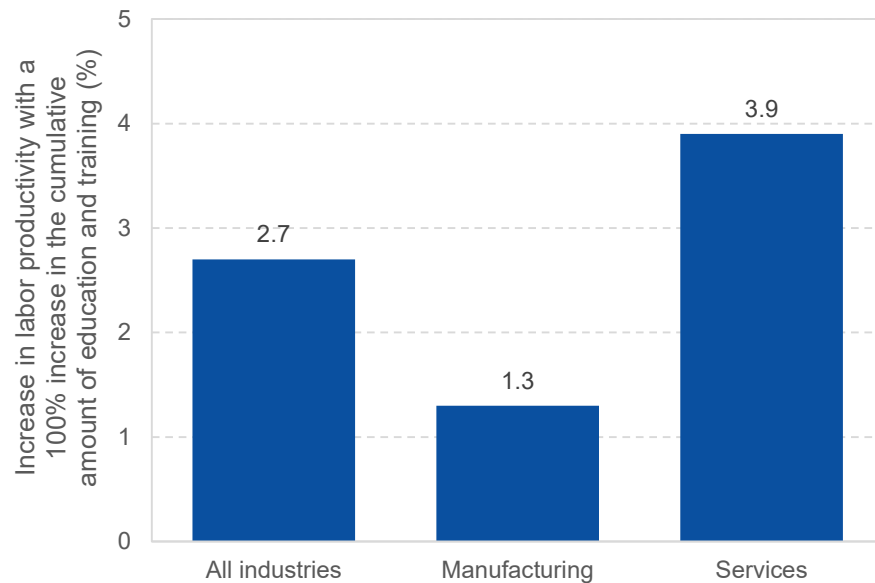
Note: Actuals are OFF-JT values for 2018; the potential growth rates are 2015–2019 averages; the US and Europe are averages for the US and the UK, Germany, and France, respectively. The targeted amount of human capital investment (OFF-JT) flow required to raise Japan's overall potential growth rate by 4.5% over five years is estimated by industry and firm size, based on the elasticities of corporate investment stock in education and training and labor productivity by Morikawa (2018). The rate of additional public contribution relative to the current level is assumed to be 30% for large companies and 70% for SMEs in all industries. The attrition rate for human capital investment is assumed to be 40% based on the JIP 2021 database and Morikawa (2018). Because the target amount can vary greatly depending on the level of the attrition rate selected, the results of the estimation should be viewed as a range.

Source: Made by MHRT based upon "JIP 2021 Database" by the Institute of Economic Research and Hitotsubashi University and upon "Economic Census for Business Activity of Japan 2016" by the Ministry of Internal Affairs and Communications

# Encouraging private companies to invest in human capital

- OFF-JT investment by private companies has had a positive effect on productivity. Productivity gains are particularly large in the service industry.
  - When the accumulated amount of OFF-JT, including training and university sending expenses doubles, labor productivity rises by 2.7% in all industries and by 3.9% in the service industry.
- Companies with Ph.D. holders show an effect of higher rates of achieving innovations.
  - The rate of achieving product innovation increased by 4.5 percentage points, while the rate of achieving process innovation increased by 3.8 percentage points. An emphasis on organizational management, such as reflecting the evaluation of R&D results by Ph.D. holders and reward systems, also raised the rate of achieving innovations.

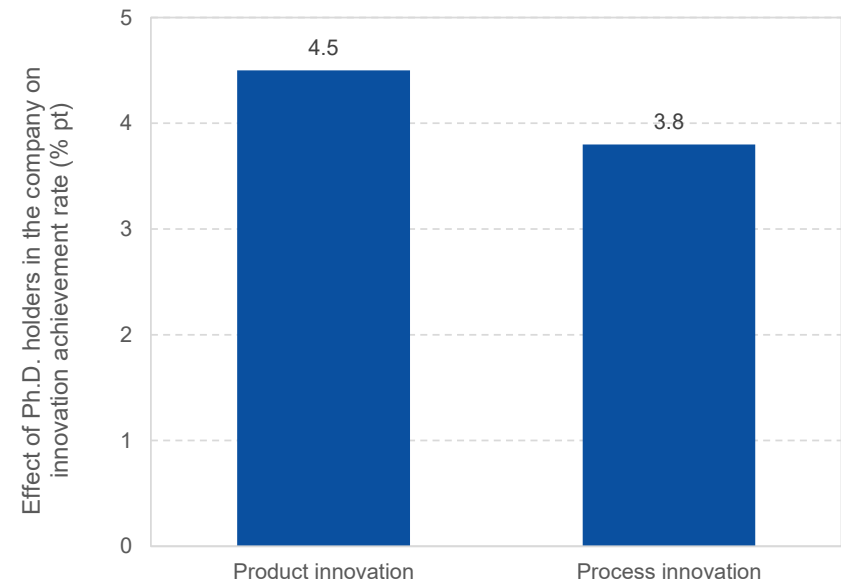
## Impact of education and training investments on labor productivity



Note: Result of a panel analysis using FY2009–2015 data from "Basic Survey of Japanese Business Structure and Activities" by the Ministry of Economy, Trade and Industry (METI); expenses covered include OFF-JT expenses such as lecturer expenses, training expenses, and university dispatch and study abroad expenses.

Source: Made by MHRT based upon Morikawa (2018)

## Effects of Ph.D. holders on promoting innovation



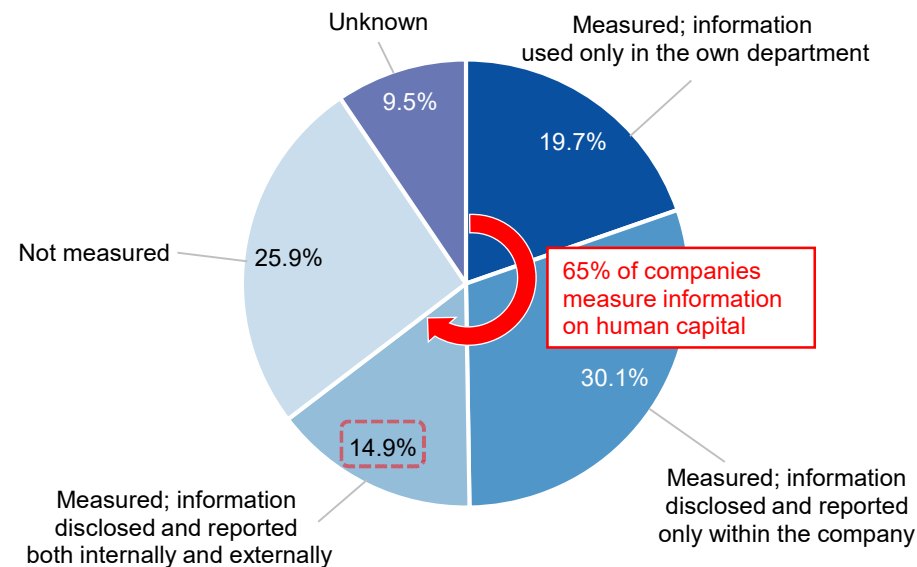
Note: Result of the panel analysis of the effect of Ph.D. holders on firm innovation, based upon "National Innovation Survey" by the National Institute of Science and Technology Policy of the Ministry of Education, Culture, Sports, Science and Technology

Source: Made by MHRT based upon Fukao (2021), Chapter 8

# Investors focusing on human resources investment

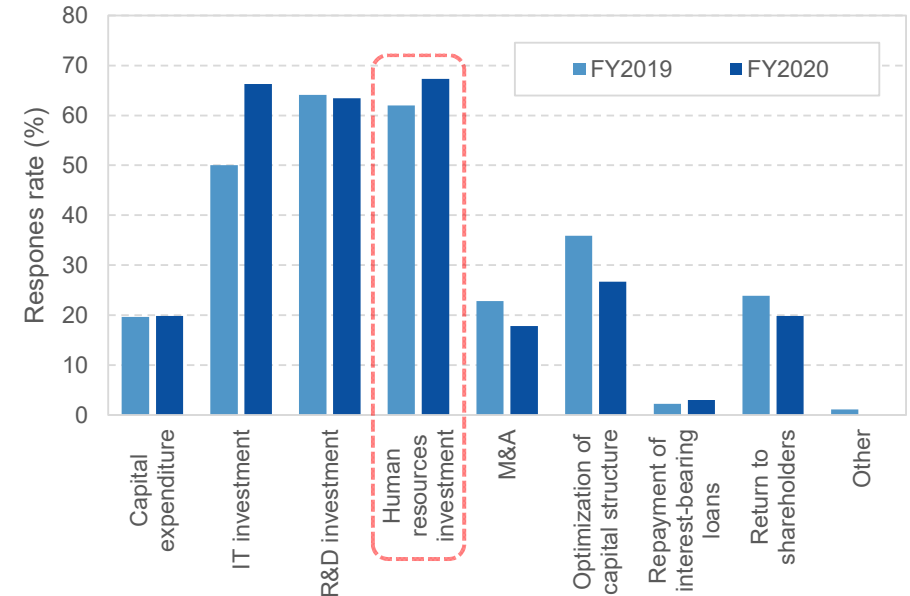
- The government plans to request companies to disclose management information on human capital (employee skills development, hiring of human resources with diverse backgrounds, etc.) as early as this summer.
  - Currently, 65% of companies are measuring human capital information (in 11 key areas in ISO30414, including "skills and competencies"), while only about 15% are disclosing the information to the public.
- More than 60% of investors focus on human resources investment as a mid- to long-term investment/financial strategy; expectations are even higher for IT investment.
  - Human resources investment is expected to increase mainly among large companies as information on human capital is more widely disclosed in integrated reports, etc., from FY2023 onward.

## ISO30414 measurement and disclosure of information on human capital



Source: Made by MHRT based upon "Survey of human resource personnel on human capital management and human resource management" (2021) by Recruit

## What investors value in the investment and financial strategies of Japanese companies



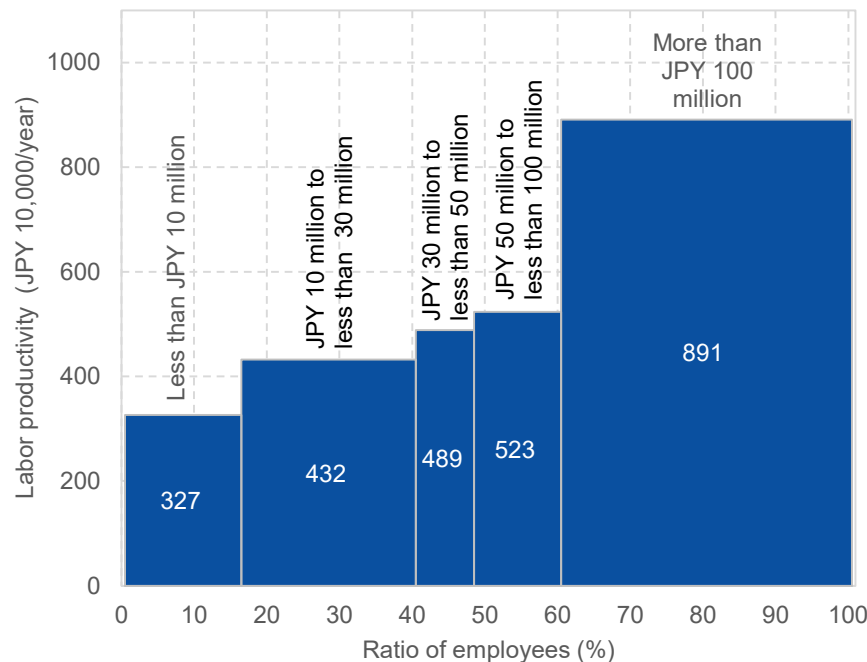
Source: Made by MHRT based upon "Questionnaire on efforts to enhance corporate value" by the Life Insurance Association of Japan



# Raising labor productivity throughout the economy with reskilling support for SMEs

- Improving the labor productivity of SMEs, which account for 60% of all employees, is the key to raising the overall productivity of the economy.
  - SMEs with less than JPY 100 million in capital have per-employee value added in the JPY 3–5 million range—far below that of large companies.
- The government plans to implement a package of "investment in human resources" measures that includes conversion of non-regular workers to regular employees and support for re-learning.
  - The subsidy system for capacity development and labor mobility will be expanded in FY2022 and beyond, based on suggestions from company management and workers.

## Employee share and labor productivity by firm capital



Note: Labor productivity = Annual value added / Number of employees; the target covers all industries except public services. (2015)  
 Source: Made by MHRT based upon "Economic Census for Business 2016" by the Ministry of Internal Affairs and Communications

## Planned government measures to support capacity development and labor mobility

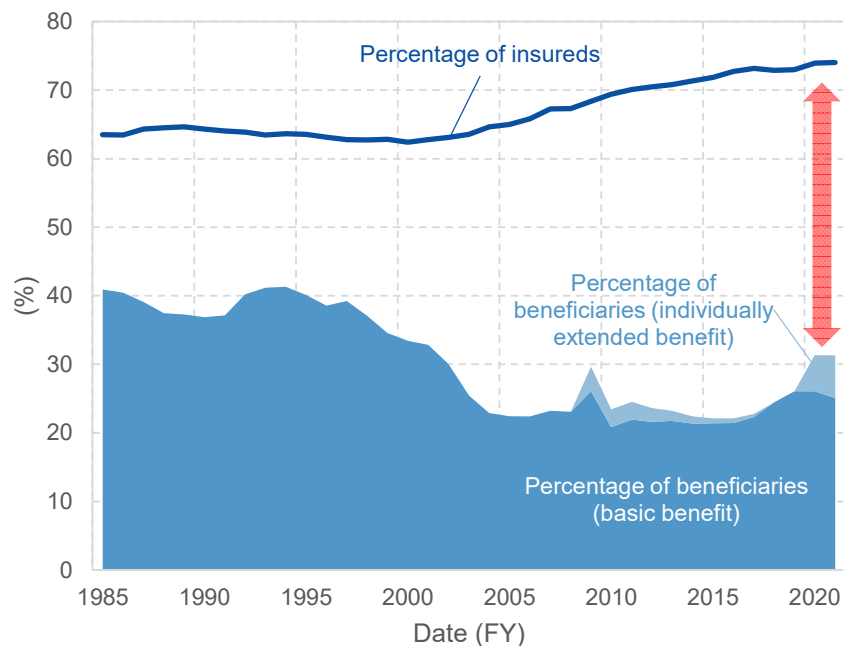
Target	Measures under consideration by the government
Subsidies for training expenses	<ul style="list-style-type: none"> <li>● Under the program that subsidizes the cost of training provided by companies to their employees, <b>the subsidy rate for the development of advanced digital human resources will be increased by 30% (from 45% to 75%). The maximum subsidy per person for admission to graduate schools, including those overseas, will be increased significantly from JPY 500,000 per person.</b></li> </ul>
Support for non-regular workers	<ul style="list-style-type: none"> <li>● Under the subsidy program for employers that convert non-regular workers to regular employees, <b>the subsidy amount will be increased to JPY 665,000 for fields with high private-sector needs, such as the digital and green fields (equivalent to the subsidy amount for workers of single-mother/single-father households).</b></li> </ul>
Promotion of labor mobility	<ul style="list-style-type: none"> <li>● Under the subsidy program for employers that hire people that have difficulty in finding employment such as elderly people and single mothers, <b>the current subsidy of JPY 600,000 will be increased by 1.5 times (for an elderly person who has been employed for one year) if the person is hired in a growth field such as digital and green.</b></li> </ul>
Securing the time for re-learning	<ul style="list-style-type: none"> <li>● Under the subsidy program for companies that already have a leave system in place, <b>the companies are now eligible to receive subsidies for the cost of maintaining wages/work rules for employees that take special leave. Furthermore, companies that newly introduce a "short-time work hours system" or "overtime exemption system" are also eligible for subsidies to cover the cost of maintaining work rules and regulations.</b></li> <li>● <b>The current limit of a "maximum of two workers per company" for subsidizing wages for workers on leave will be abolished.</b></li> </ul>

Source: Made by MHRT based upon "Results of the call for proposals for 'Investment in human resources' and the government's response to the proposals" by the Cabinet Secretariat

# Extending the employment safety net to promote labor mobility through education and training

- Although the percentage of the population covered by employment insurance rose to over 70%, only 20–25% of the unemployed are receiving the benefit.
  - The number of unemployed people that do not meet the requirements for receiving benefits has increased due to the increase in non-regular employment, resulting in insufficient functioning of the safety net.
- In addition to upgrading the skills of those that are currently employed, it is important to expand job training for those that were excluded from the safety net (Employment Assistance Act projects).
  - It is needed not only to increase the scale of the safety net but also to increase its availability by extending the reach to potential targets and simplifying the application process.

## Coverage of employment insurance



Note: Percentage of insureds = Number of insureds / Total number of employed persons;  
 Percentage of beneficiaries = Actual number of beneficiaries / Number of unemployed persons (15-64 years old)

Source: Made by MHRT based upon "Employment Insurance Business Annual Report and Monthly Report" by the Ministry of Health, Labour and Welfare (MHLW), "Labor Force Survey" by the Ministry of Internal Affairs and Communications, and Tadashi Sakai (2020)

## Public job training policies in Japan

Program	Qualified recipient	Description	Scale
<b>General education and training benefit</b>	At least one year of employment insurance coverage	20% subsidy for the cost of acquiring certification, master's and doctoral degrees, etc. (up to JPY 100,000)	JPY 3.4 bn 89,011 people
<b>Specialized practical education and training benefits</b>	At least two years of employment insurance coverage	50–70% subsidy for the cost of certification acquisition, professional university, vocational school, etc. (up to JPY 560,000 per year); if certain conditions are met, educational training support benefits can be received as livelihood support.	JPY 20.1 bn 80,517 people
<b>Specified education and training benefit</b>	At least one year of employment insurance coverage	40% subsidy for the cost of certification acquisition (up to JPY 200,000)	JPY 0.1 bn 1,647 people
<b>Public vocational training</b>	Mainly recipients of unemployment benefits of employment insurance	Providing training to acquire job skills and knowledge for free (Training for current employees and graduates is fee-based, in principle.)	JPY 133.3 bn 190,757 people
<b>Employment Assistance Act projects</b>	Not insured or qualified for the employment insurance	Free training in IT, office work, welfare, design, etc.; unemployed and low-income workers can receive job training benefits as livelihood support.	JPY 10.5 bn 16,926 people

Note: The program scale and the number of qualified recipients are as of 2020. The amounts of vocational training are the appropriate amounts.

Source: Made by MHRT based upon "Annual Report on Employment Insurance Operations," "Public Vocational Training Performance in FY2020," "Public Vocational Training and Job Applicant Support Training in FY2020," and "FY2020 Accounts (Employment Accounts under the Labor Insurance Special Account)" by the MHLW

## Summary

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- **Prime Minister Kishida has positioned human capital investment at the heart of the growth strategy for "new form of capitalism."**
  - The government has announced the establishment of a package of "investment in people" measures worth JPY 400 billion over three years.
- **Two challenges of the Japanese economy in the background are "declining productivity" and "lower income."**
  - At hand is a vicious cycle in which wages and incomes do not increase due to lack of growth potential, which leads to sluggish domestic consumption and weighs on growth.
- **Growth and distribution is to be achieved simultaneously by expanding public human capital investment.**
  - It is important to (1) encourage human capital investment in the private sector to increase productivity (growth) and (2) to increase wages and incomes of a wide range of workers by enhancing public education and training and expanding the employment safety net (distribution).
  - In order to raise Japan's growth rate to the mid-1% range, which is on par with Europe and the US, the public and private sectors will need to invest nearly JPY 4 trillion annually in human capital. Compared to the current level, the additional JPY 2.3 trillion per year will be required, of which JPY 1.3 trillion should be paid by the government.

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