

Provisional
translation

Grand Design and Action Plan
for a New Form of Capitalism
~Investing in People, Technology, and Startups~

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Grand Design and Action Plan for a New Form of Capitalism
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Introduction

This Grand Design and Action Plan for a New Form of Capitalism, which compiles and reviews the deliberations of the Council of New Form of Capitalism Realization and the ruling party, shall be subject to approval by the Cabinet of Japan.

I. A New Upgrade for Capitalism

1. The correction of market failure and defense of universal values

The idea of Neoliberalism, that things would work if one left them up to the market and competition, arose from the 1980s to the 2000s, and the global economy grew significantly as economic vitality returned with the spread of globalization. Neoliberalism can be said to have played a role in driving that growth.

At the same time, countless hurdles have also emerged during that time, such as expanding economic disparity, the worsening of climate change, increasing risk to economic security due to excessive overseas dependence, growing urban problems due to population concentration, and market failure.

The Covid-19 Pandemic in particular has increased the risk management challenges facing each country, such as clarifying that it is not possible to ensure the health of the citizens and the economic security of the state under supply chains that depend on specific nations and regions.

Furthermore, the current Russian invasion of Ukraine has also revealed geopolitical risks to the international economy and rising challenges from authoritarian states.

In fact, states that adopt what can be called authoritarian state capitalism have achieved rapid economic growth, and expanded their influence in international politics, by ignoring the rules of a free economy and engaging in unfair economic activities. Freedom and democracy are facing challenges from this authoritarian state capitalism.

Meanwhile, the public and private sector is working together in each nation for the adoption of digital technologies, the development of new cutting edge technologies, the rebuilding of global supply chains, and large scale investment to rebuild the economy and social systems following Covid-19.

We in Japan are also under pressure to change.

2. Finding solutions and new markets and growth, and achieving sustainable well-being for the citizens, through “both the market and the state” approach

Capitalism has undergone two major transformations in the past. During the two world wars

of the 20th century, Laissez-faire was replaced with the concept of the welfare state in which the government emphasized social welfare. Then, during the subsequent cold war geopolitical structure, the concept of neoliberalism arose to rebuild the economy that was losing competitiveness. We now face the third major transition in the history of capitalism, and must proceed with transformation to achieve a new form of capitalism, or in other words, the fourth stage of capitalism.

The only system that can surpass capitalism is capitalism itself. A new form of capitalism is still, of course, capitalism.

However, whereas previous transitions have involved a fundamental swing of the pendulum between market or country, and public or private, under the new capitalism, we must endeavor to solve the emerging social problems that cannot be solved by the market alone, involving considerable externalities, through an approach of “both the market and the state”, or in other words, through new public and private cooperation.

In doing so, we must perceive the challenges not as hurdles, but as sources of energy as we find solutions to these social problems through new public and private cooperation, and to use and include those sources of energy to achieve growth.

And this new form of capitalism must achieve sustainable well-being for all citizens. The fruits that will come in the form of solutions to social problems through public and private cooperation, and the new market creation and growth that will result thereof, must realize a virtuous cycle of growth and distribution, and must be fed back and shared widely to the citizens, regions, and domains. In addition, through initiatives to tackle such social problems as climate change and the declining birthrate and aging population, we must rebuild a sustainable socioeconomic system that connects to the lives of the citizens and leaves no one behind in order to take the lead in international society.

As described above, the basic ideas that lie at the heart of this new form of capitalism are: 1) for solutions to be found by both the market and the state, and both the public and private sectors; 2) to create new markets through the solving of social problems, or in other words, to achieve solutions to those problems along with economic growth; and 3) to improve the lives of the citizens and to achieve sustainable well-being for all through the finding of solutions to problems.

In particular, in order to increase the sustainability and resilience of capitalism and ensure that all people can benefit from growth, it is necessary for the public and private sectors to collaborate on a large scale with a focus on areas that are difficult to tackle for the market alone, such as the accumulation of human capital, the development of advanced technology, and the development of startup companies. This collaboration is critically important for Japan considering that we are facing a coming shortage of labor due to the declining birthrate and

aging population.

As part of the collaboration, we must strengthen the foundations for contribution by women across the board, such as through promoting economic autonomy by correcting the wage gap between men and women, in order to secure diversity for the economy and society of Japan and thereby lead to further innovation.

Further requirements we currently face are a transformation of working styles so that anyone can work in the manner they desire anywhere, anytime, expanded support for child rearing, and the achievement of a social welfare system of mutual support based on the capabilities of each citizen as the declining birthrate and aging population begin to impact society, while the pursuit of a decentralized economic society based on the concepts of Web 3.0 and the blockchain are also important.

3. Economic security

National security is a fundamental requirement for the achievement of a new form of capitalism that will bring prosperity to the citizens. Given the constantly changing international situation, the strengthening of economic security, including issues of energy and food, are preconditions for a new form of capitalism.

Thus, under this new form of capitalism, we will work to secure not only diplomacy and defense, but sustainable and inclusive safety and security in the daily lives of the citizens.

Finally, against the rise of authoritarian nations, it is necessary for nations that emphasize such universal values as freedom, democracy, human rights, and the rule of law to join together to maintain and strengthen a free and open economic order and promote free trade, while strengthening their response to unfair economic activities.

II. Approach to the Achievement of a New Form of Capitalism

1. The elimination of barriers to distribution to achieve further growth

Capitalism has brought economic growth through the engine of the market mechanism, and the new form of capitalism must thoroughly pursue further growth. However, further growth cannot be realized if we do not appropriately distribute the fruits of growth so that it may be invested in yet further growth. Distribution is not a cost, but investment in sustainable growth.

In Japan, there exist “clogging” such that the fruits of growth are not being appropriately distributed to local areas and business partners and furthermore, are not being adequately allocated for further research and development, capital investment, and employee compensation. These “cloggings” are inhibiting further growth. The trickle-down

phenomenon will not occur if we simply wait for it to happen. Instead, it is necessary to eliminate these “cloggings” through active policy involvement.

The formation of an ample middle class is important for the healthy development of democracy, and the enrichment of the middle class, which will also play the central role in the economic society of the new form of capitalism, will help avoid the expansion and ossification of economic disparity and achieve a sustainable economic society. For this purpose, we must ensure the distribution of both flows, in terms of wage increases and optimizing business with SMEs, and stock, in terms of education and asset formation, while promoting sustainable distribution through support for digital investment to prepare for the coming era of labor shortages.

2. Securing power for growth through public-private collaboration driven by technological innovation

Each country is making bold investments in innovation to rebuild their economies and social systems in the post-Covid society because innovations in such domains as digital technology, including AI and quantum technologies, clean energy, material technology, biotechnology, and medical field, contain potential solutions for countless problems facing society, while also serving as the source of competitiveness in a new age.

However, research and development investment and capital investment in Japan lags far behind that of other countries.

It is essential for Japan to also boldly promote innovation through public and private collaboration to upgrade our nation’s economy and social systems, and boldly shift from competitiveness based on cost cutting to that based on the creation of new value.

Furthermore, in this age of digital transformation (DX) and green transformation (GX), where ideas are being put into practical use at a high speed and new technologies are rapidly being updated, the importance of intangible things against tangible things, of intangible assets against tangible assets, is growing as the source of competitiveness, rather than the traditional source of machinery and equipment. In such times, creative innovation and economic growth emerge from the maximization of human capabilities. Therefore, it is essential to realize a society in which all people, including women, youth, and the elderly, can each exercise their knowledge and experience, and to continuously work to improve their skills through generous investment in people.

3. Achieving a society in which the private sector plays a public role

It is difficult for many of social problems to be solved with the government solely in the lead. In order to encourage society as a whole to engage in solving its problems, we must aim

to become a society in which the private sector can take the lead in tackling the problems we face. For that, we must rethink market rules and laws to reward contributions to solve those problems, and by doing so, create a flow by which funds and people gather at companies according to the size of their contributions. Furthermore, in addition to existing companies, it is essential to diversify actors engaged in solving social problems to include startups, social entrepreneurs, universities, and NPOs, in order to achieve a society in which the private sector takes on a public role. There has been a particular rise in recent years in individuals aiming to serve as social entrepreneurs to tackle the problems of society, such as problems of the environment or child rearing. Accordingly, we intend to provide full support to the initiatives of these social entrepreneurs as a new form of public-private partnership.

From this perspective, we must consider “impact” in addition to “risk” and “return” in order to include “problem solving” as an additional indicator for evaluation under capitalism.

In doing so, one of the keys to that problem solving is the use of digital technology. It is important to enable the use of digital technology to solve problems by upgrading regulations and systems to match the digital age, and to promote competition policy to ensure fair competition commensurate with the new age in order to enable the private sector to maximize its capabilities.

III. Planned Priority Investment for a New Form of Capitalism

In order to rebuild the economy and put it on a new growth trajectory through the achievement of a new form of capitalism, we will flexibly carry out the essential fiscal stimulus and tax reform from a medium to long-term perspective. For this purpose, we will focus on investment in four pillars: investment in people, investment in science, technology, and innovation, investment in startups, and investment in GX and DX.

1. Investment in and distribution to people

As with the shift from things to ideas, people are becoming increasingly important to exercise creativity in the midst of major waves of change such as DX and GX, making investment in people essential. Furthermore, increasing value by investing in people is becoming extremely important in the face of labor shortages for Japan, a nation which has tended to cut costs and increase productivity in the past through dependence on a cheap supply of labor.

Furthermore, it is people who will solve the issues facing society, such as responding to climate change, the declining birthrate and aging population, correcting income disparities,

and securing economic security including energy and food, making investment in people the most important form of investment.

For that reason, we will thoroughly strengthen investment in people in terms of stock, such as education and asset formation, in addition to investment in terms of flow, such as wages. We will also strengthen efforts to prepare the environments necessary for each life stage, including childhood, working age, and old age.

(1) Promoting wage increases

The labor share (or employer compensation divided by gross national income (GNI)) has been trending downward in advanced nations.

Furthermore, an examination of household consumption and disposable income in advanced nations shows that household consumption rises when disposable income rises. Therefore, the primary reason for sluggish household consumption in Japan is because the increase in disposable income is also not adequate.¹

One major issue facing Japan is that the increase in wages is low despite the fact that the rise in labor productivity per unit of time is not bad compared to other countries.² If wages do not increase, consumption will not increase and the next stage of growth will not be achieved.

Therefore, we will work through public and private collaboration to ensure wages are commensurate with the rise in labor productivity.

During the spring wage offensive this year, there was a shift in the level of wage³ increases that had been declining for several years, and it now shows signs of reaching a level appropriate for the new form of capitalism. It is important for the public and private sector to continue to work together to cultivate an attitude in society to increase wages. The Council of New Form of Capitalism Realization will work to reach a consensus on price shifting and diverse working styles while considering the appropriate state of wage increases based on data evidence.

Another major policy decision regarding investment in people is increasing the minimum wage. Given the rise in the cost of living, it is necessary to work towards a raise in minimum wage through public and private collaboration. Meanwhile, it is necessary for the Minimum Wage Council, comprised of the Tripartite Structure, to properly discuss the issue with consideration for living expenses, wages, and the ability to pay those wages.

1) Further utilization of the tax system for promoting wage increase

¹ Basic Data P1: Comparison of Growth in Household Consumption and Disposable Income by Country

² Basic Data P2: Comparison of Actual Wage Increases Per Person by Country

³ Basic Data P3: Changes from the Spring Labor Offensive

In order to create an environment that supports more aggressive wage increases in the private sector, the tax credit rate for the tax system for promoting wage increase was drastically increased (from 20% to 30% for large companies and from 25% to 40% for SMEs). Accordingly, we will work to promote further use of this tax system through thorough efforts for public awareness, including briefings held throughout the country, promotion via government institutions such as the Labor Standards Inspection Office, and briefings at organizations for SMEs such as Chamber of Commerce and Industry and Commerce and Industry Association.

Furthermore, in order to support wage increases by unprofitable SMEs, less likely effected by the tax system, we created a special quota for raising subsidy amounts, via the Subsidy for Monozukuri (Subsidy Program for Monozukuri, Commerce and Services) and Subsidy for Sustainability (Subsidy Program for Sustaining Small Enterprises), for those companies that raise wages despite being unprofitable. We also reviewed government procurement with regard to unprofitable companies, such as awarding more points to those that raised wages. We will continue to promote further wage increases alongside these initiatives.

2) Government-wide optimization of small and medium-sized business subcontracting for priority industries

Based on the "Package of Measures to Facilitate Pass-on for Value Creation through Partnerships" (December 2021) and "Five Initiatives to Optimize Transactions" (February 2022), we will promote the development of an environment that allows SMEs to appropriately pass on labor costs, raw material costs, and energy costs in order to secure funding to increase wages.

According to a survey, we found that the major factors interfering with such passing on costs included the risks of changing or losing business partners due to demands for price increases, difficulty of accepting price increases due to price competition by the seller, and the difficulty of price negotiations when the buyer is too powerful.

Based on these facts, we will carry out a survey on supply chain connections for roughly 100,000 companies in 22 industries regarding the abuse of dominant bargaining positions under the Antimonopoly Act, divided into three categories of i) the manufacture and sale of products for daily life, ii) manufacturing of parts and finished products, and iii) service provision. We will use the survey results to lead to the development of a proper trading environment, such as by conducting on-site investigations when necessary.

We will also prepare a guideline related to the abuse of dominant bargaining positions under the Antimonopoly Act for the optimization of transactions throughout the supply chain, including problematic case studies.

In order to strengthen the effectiveness of the Declaration of Partnership Building aiming for coexistence and co-prosperity between large business and SMEs, we will survey companies participating in the declaration and provide follow up on the execution thereof.

For this year's priority inspection industries under the Act against Delay in Payment of Subcontract Proceeds, etc. to Subcontractors, we have selected road freight forwarding, metal products manufacturing, production machinery and equipment manufacturing, and transportation machinery and equipment manufacturing. We will significantly increase the number of on-site inspections for these industries.

In addition, in the event that a high number of legal violations are recognized in industries outside the list of priority inspection industries, we will order the relevant industry organization to carry out a self inspection on the status of legal compliance via the ministry with authority over that industry.

3) Further review of public price to improve compensation for long-term care and disability welfare personnel and childcare workers.

We put in place measures to achieve a 3% raise in income for long-term care and disability welfare personnel, childcare workers, and nurses involved in handling the Covid-19 Pandemic.

Regarding future directions for specific improvements in compensation for long-term care and disability welfare personnel and childcare workers, considerations will be made in light of the mid-term report of the Committee for the Evaluation and Examination of Public Prices from the standpoint of raising compensation to a level appropriate to the work of each job in order to secure the necessary personnel.

Regarding future compensation improvements for nurses, we will consider the state of wage improvements according to career promotions for nurses at all workplaces in light of the outcome of the above measures.

We will continue to work on compensation improvements based on the results of these initiatives.

(2) Facilitating labor mobility through skill increases

1) An environment enabling people to choose jobs they want to do (support for retraining, promotion of second jobs, and re-employment)

Investment in people from a stock perspective requires vocational training, retraining, life-long education, etc.

In-demand occupations are being replaced by new job types in response to changes in the

era and the social environment.⁴ In addition, data shows that, as the proportion of trained employees increases, labor productivity per worker and average wages per head increase as a result.⁵

Therefore, in order to advance the smooth mobility of labor to growth areas, improve labor productivity, and further increase wages, it is important to form public-private partnerships not only within individual companies, but at a national scale, working to increase the skill levels of workers and enrich human resources development systems. In doing so, weight will be placed on working to improve the digital skills not only of digital human resources, but raising the baseline skill level of the entire working generation.

In addition, to enable anyone an easy labor mobility between companies, it is also necessary to build a structure which provides workers with career consulting for changing jobs or advancing their careers.

Drawing on ideas solicited from employees, managers, training service providers, and the general public, and based on a 400 billion yen package of measures over three years, support will be provided - including to people in non-regular employment - in terms of capability development, re-employment, and stepping up by transfer to another company. It is anticipated that approximately one million people will benefit from this program.

Investment in education and training will be further increased. Promoting the accumulation of human capital beyond the corporate framework at a national level will actively support stepping up via labor transfer.

The program aims to make Off-JT training expenditure bottom out, and in addition, make personnel investment by Japanese companies⁶ - which has been on a further declining trend in recent years - at least double in the short term and then increase further.

2) Support for young researchers and encouraging research and development subsidy schemes which tolerate early failure and look for long-term results

In an empirical study that compared the results of grant schemes that tolerate early failure, allow for discretionary flexibility in research contents, and evaluate research over the long-term with typical, project-based grant schemes that evaluate research at regular intervals, researchers in the former scheme, compared to the latter scheme, produced twice the number of high-impact papers (number of citations ranking in the top 5%).⁷ Therefore, research and development subsidy schemes which tolerate early failure and look for long-term results will be encouraged. Specifically, application-type research and development support spanning

⁴ Basic data P4: Increase in employment through new occupations

⁵ Basic data P5: Impact of training

⁶ Basic data P6: International comparison of corporate personnel investment

⁷ Basic data P7 and P8: Comparison of results from research subsidy schemes which tolerate early failure and typical schemes

multiple years such as moonshot research and development schemes and FOREST (Fusion Oriented Research for disruptive Science and Technology) will be strengthened and re-oriented toward tolerating early failure and evaluating over the longer term.

In addition, support for young researchers is important. It has been demonstrated that young researchers chosen for the U.S. National Institutes of Health associate training program (which selects young university graduates) are in later years highly likely to deliver major results such as winning the Nobel Prize.⁸ Likely benefits of these programs include reputation building as well as interaction between people selected for them. Japan has some such initiatives, such as the MITOU Program, but it is necessary to consider expansion to the national level. To that end, consideration will be given to bringing together experienced researcher appraisers from within Japan and abroad to conduct selection and provide research guidance.

3) Digital human resources development and building specialized capabilities

In order to increase wages, it is necessary for companies to increase value added. To that end, it is necessary to promote personnel investment, particularly in the digital field.

Given the differing human resources required by large companies, small- to medium-sized companies, and IT companies, it is necessary to build up the digital human resources who will implement digital solutions and take the lead in addressing issues faced by communities. Building on the current one million people, a structure will be gradually established which can train 250,000 people annually by the end of this fiscal year and 450,000 people annually by the end of the 2024 fiscal year, ensuring a total of 3.3 million people by the 2026 fiscal year.

To that end, an online platform will be built, recruiting participation from universities, educational institutions, and companies involved in digital human resources development, providing training content required of all digital human resources, and running practical case study training programs based on corporate examples.

At the same time, education in AI, data science, and math will be strengthened at universities etc. nationwide (including provincial universities), developing human resources who can apply such knowledge regardless of whether their background is in the humanities or the sciences.

In addition, an environment will be created in which digital human resources are both trained in the regions as well as encouraged to return to and enabled to remain in regional areas.

In terms of cybersecurity human resources development - which is increasingly important as digital implementation advances - in addition to the above initiatives, cybersecurity human resources will be developed at companies, government agencies etc. as per section III. 4 (2) (9). In addition, from an economic security perspective, initiatives will be advanced as per

⁸ Basic data P9: Effects of implementing selection programs at early stage

section VI. 1 (1) to strengthen defenses against more advanced and complex attacks.

4) Expanding side jobs and multiple jobs

The lifting of bans against side jobs and multiple jobs is taking some time, particularly at large companies with more than 1,000 employees.⁹ Significant support has been voiced for side jobs, such as that businesses started through side jobs fail at a lower rate,¹⁰ people who have side jobs become unemployed at a lower rate,¹¹ and companies which have accepted side jobs have resolved their human resources shortage.¹² Side jobs and multiple jobs will be further promoted in order to advance the smooth mobility of labor to growth areas and industries.

Thus, from the perspective of broadening workers' choices of occupation and supporting diverse career building, the "Guidelines for Promotion of Side Jobs and Multiple Jobs" will be revised to encourage companies to disclose information about whether or not they permit side jobs and multiple jobs, and what any conditions are when imposed.

(3) Moving from savings to investment: formulation of the "Doubling Asset-based Incomes Plan"

Among the 2,000 trillion yen of personal financial assets in Japan, over half is held in bank deposits or cash. As a result, over the last 20 years the value of household financial assets in the U.S. has tripled and in the U.K. has increased by 2.3 times, but in Japan the increase was 1.4 times.

In order for households to become financially more comfortable, it is necessary to create a virtuous cycle by redirecting some household deposits into investments so that households can receive the benefits of sustained increases in corporate value.

To that end, a significant expansion of NISA (tax exemption program for small investment) is planned to encourage shifting of personal financial assets from savings to investment across all generations. In addition, taking into account that the obligation to make efforts to secure work opportunities is being extended to age 70, it will aim at the elderly who hold the majority of cash and deposits, a reform of iDeCo (Individual-type Defined Contribution pension plan) and also - create an environment that facilitates asset formation for their children's generation. A forum for consideration of these initiatives will be established within the Council of New Form of Capitalism Realization, and will formulate the comprehensive "Doubling Asset-based Incomes Plan" by the end of this year.

⁹ Basic data P10: Side job systems by company size

¹⁰ Basic data P11: Decreased rate of business exit through gradually starting a business via a side job

¹¹ Basic data P12: Effect of side jobs on career choice

¹² Basic data P13: Effect of accepting side job and multiple job human resources

We will provide information through methods such as workshops and seminars which contribute to improve financial literacy for senior high school students and the general public.

The public pensions quick calculator which estimates how much a person could receive in the future depending on changes in work styles was launched in April this year. Current initiatives include linking with private-sector apps to enable visualization of the overall picture including private pension and private-sector insurance.

(4) Supporting the efforts of all generations, including children, working adults, and the elderly

The following initiatives will be promoted while securing stable sources of funding.

1) Establishment of the Children and Families Agency

This initiative places policies regarding children at the center of Japan's society, and- as a command tower in order to advance the elimination of vertically divided administration, the new Agency will appropriately engage with a range of issues from children's perspective. To be established in April next year, the Children and Families Agency will also work on standardization of curricula and care across kindergartens, day care centers, and certified centers for early childhood education.

2) Enhanced day care and after-school children's clubs

Reducing the burden on parents and supporting child raising as an entire society through steadily implementing initiatives such as building the foundation for day care services based on the "New Child-Rearing Relief Plan" etc. and providing after-school children's clubs.

3) Full-scale introduction of career progress payment

We will establish a flexible repayment/payment (career progress payment) system that also takes into account life events by reviewing the reduction system of monthly installment and firstly introducing a new system that allows students to pay according to their income after graduation without paying tuition fees while attending school to graduate school students. And then, upon giving due consideration to the point of how parents, students themselves and the national government bear education costs as well as to the possibility of gaining public understanding and acceptance of this new system, we will conduct studies (note) toward full-scale introduction of the new system for students not eligible for the current tuition fee exemptions, securing reliable financial resources.

(Note) Includes consideration of legal positioning.

At the same time, a public-private joint study support programs for female students pursuing

further education in science, technology, and agriculture will be developed.

4) Support for housing costs of families with children

UR Rental Housing and Safety Net Housing will be utilized to reduce the housing costs burden of families with children. At the same time, programs to obtain and renovate highly energy-efficient housing will be promoted. The cost burden of moving house and renting will be reduced for young people starting their new lives as married couples. In addition, initiatives will be taken regarding support for marriage and childbirth.

5) Reducing the burden of in-home long-term care

As the number of elderly people increases in the future, it is projected that the number requiring long-term care will increase significantly, but at the same time, the number of elderly people living alone or as a couple will increase, meaning that families are less able to provide long-term care. Working from the above preconditions, the foundation for long-term care services will be steadily built based on projections of the future long-term care requirements in each community.

6) Enhancing measures against dementia, enhancing pre-log-term preventive care, and promotion of nursing care leave, etc.

Comprehensive measures regarding dementia will be promoted based on continued future increases in the number of dementia sufferers. Discussions will be advanced regarding in-home care assistance for family members providing long-term care and people requiring long-term care - including dementia sufferers - utilizing familiar locations such as Community General Support Centers, as well as adult guardianship, support for the protection of rights, etc.

In addition, using ICT effectively, support for young carer will be delivered to thoroughly ascertain their situation, and taking effective support measures based on evaluation of model programs.

For elderly people confined to their homes, activities including the entire community will be supported from the perspective of enhancing platforms for social participation activities and pre-log-term preventive care, as well as building a service foundation including the entire community such as strengthening the medical and long-term care liaison system.

Taking measures to prevent both men and women quitting their jobs to care for family, including further raising awareness of the nursing care leave system.

Mental health measures will be promoted, bearing in mind the effects of the COVID-19 pandemic.

7) Promotion of health management

As well as companies and insurers working together to promote health management, the scoring methods etc. will be revised.

(5) Respect for diversity and flexibility of selection

Flexibility of selection will be ensured by creating an environment which respects diversity and where people can work whatever their gender.

1) Respect for diversity

Large Japanese companies have tended to be managed principally by men in their middle age and above, but looking ahead, greater diversity must be ensured within these organizations. Japanese companies linking diversity to growth will be supported.

As well as thoroughly implementing and promoting a system of equal pay for equal work, the business world will be pressed to expand implementation of diverse full-time employee systems, such as short hours full-time employees, limited work site full-time employees, and occupation/role limited full-time employees. In addition, initiatives aimed at reform of corporate organizations will also be promoted, including appointment of diverse human resources such as women and younger people to executive roles etc., implementing a sabbatical leave system, and secondment to startups.

2) Making disclosure of the gender wage gap mandatory

The gender wage gap across Japanese workers in both regular and irregular employment is large compared to other developed economies.¹³ In addition, the proportion of Japanese women working part time is high.¹⁴

In accordance with the Act on the Promotion of Female Participation and Career Advancement in the Workplace, disclosure of the wage gap between men and women will be made mandatory as follows.

- Disclosure of information will be required for each standalone company, rather than on a consolidated basis. Disclosure will also be required for companies owned by holding companies.
- With regard to the wage gap between men and women, for all workers disclosure shall be required not of the absolute amount but the ratio of female workers' wages to male workers' wages. In addition, disclosure will be required of this ratio separately for regular

¹³ Basic data P14: International comparison of the gender wage gap

¹⁴ Basic data P15: International comparison of proportion of women working part time

and irregular employees.

Note: Some companies are currently disclosing at their own discretion the ratio for female workers at more detailed labor management classifications (for example, dividing regular employment further by regular employees and limited work site employees). In terms of disclosure items for the ratio of male to female workers' wages, additional disclosure at such classifications is of course possible.

- A comments field will be provided for companies which wish to add explanations when disclosing the wage gap between men and women.
- Employers subject to disclosure requirements shall be those who normally employ 301 workers or more. Consideration will be given to companies with 101 to 300 workers based on the situation after the disclosure requirements take effect.
- Disclosure of similar items to those required based on the Act on the Promotion of Female Participation and Career Advancement in the Workplace will also be required in Annual Securities Reports under the Financial Instruments and Exchange Act.
- The revisions to the system (Ministerial Order) will be enacted and take effect in summer this year. As well as with other information for disclosure, the initial disclosure is to be made with the financial results of the business year concluding after the revisions take effect in July this year.

3) Revisions etc. to systems which limit women's work

Moving forward, it is important to make the social security and taxation systems - which impose limitations on women's work - neutral with regard to work styles.

Expanding the coverage of employee insurance is anticipated to have the benefit of resolving the so-called "1.3 million yen barrier," which forms a limitation on women working. In addition, raising the minimum wage will also remove the so-called "1.06 million yen barrier."

Practices which are not neutral with regard to diverse work styles are also evident in various corporate allowances. Corporate spouse allowances which have a spousal income condition also affect women's work. Compelling change is not possible as they are conditions of employment, but it is anticipated that labor and management will be aware of these effects and hold discussions toward revision, abolition, or downsizing such practices.

4) Realizing universal worker insurance

As work styles become more diverse, it is necessary to promote building a social security system which is neutral with regard to work styles.

Firstly, expanded the coverage of employee insurance (employees' pension insurance and health insurance) is being steadily implemented based on the Act on the Partial Revision of

the National Pension Act, etc. to strengthen the country's pension system, which includes gradual reductions in company size requirements. In addition, revisions including abolition of company size requirements and a review of industries where such insurance coverage is not available will be considered.

Consideration will be given to which to treat the status of freelance and gig workers as the employee with regard to the coverage applicability of social insurance. Based on this step, comprehensive consideration will be promoted regarding the shape of broader social insurance coverage, bearing changes in the working environment uppermost in mind.

5) Promotion of work style reform including the work interval system, promoting parental leave, and migration without job change

In addition to thoroughly implementing and promoting legal compliance about maximum overtime limits, effort will be put into rectifying long working hours by broadly diffusing the work interval system.

With regard to men's child-care leave, as well as promoting and evaluating the extra paternal leave taking effect in fall this year, initiatives will be taken encouraging men to take child-care leave in order to close the gap between men and women in terms of the rate and number of days of leave taken.

"Migration without job change" will be promoted, which involves implementing digital technology from the regions to support the establishment of regional satellite offices and migration utilizing telework.

(6) Formulating guidelines and strengthening disclosure to the stock market of non-financial information such as human capital

Achieving visualization of non-financial information - including human capital as well as strengthening mutual understanding with stockholders - is necessary in order to promote the transition "from personnel expenses as a cost to personnel investment as an asset" and ultimately create the virtuous cycle of growth and distribution which the New Form of Capitalism aims for.

In the U.S. market, intangible assets (such as the quantity and quality of human capital and intellectual property assets, business models, and expectations of future competitiveness) account for the majority of corporate valuation. By contrast, the proportion of valuation in tangible assets remains high in the Japanese market, so the visualization of non-financial information such as human capital from companies to the stock market will be highly

significant.¹⁵ Strengthening disclosure of non-financial information - such as by requiring listing of policies on human resources development and internal environmental improvement as well as indices and targets which express these - in Annual Securities Reports under the Financial Instruments and Exchange Act will be progressed by the end of this year.

On the other hand, in a survey of CFOs of Japanese listed companies, many replied that “target setting and selection of related indices which should be monitored,” “making an association with corporate value improvement,” and “preparing collection processes and systems for necessary non-financial information”¹⁶ are issues regarding disclosure of sustainability-related information.

To that end, human capital visualization guidelines will be released this summer for companies to refer to in determining how specifically they should move forward with disclosure, such as in terms of target setting and selection of related indices which should be monitored as well as making an association with corporate value improvement.

In addition, consideration will be given to promoting visualization in the future to not only the capital market but also the labor market regarding corporate initiatives concerning human capital.

As disclosure is also important for non-financial information other than human capital, companies will be encouraged to utilize the guidance for collaborative value creation etc.

2. Targeted investment in science, technology, and innovation

Just as vaccines have played the trump card against the COVID-19 pandemic, science, technology, and innovation have the power to address many social issues confronting the world today, such as infectious diseases, climate change, and the declining birthrate and aging population.

At the same time, challenges are emerging from authoritarian states, and the ultimate winner will be decided by the power of science and technology. For example, having the capability to develop and manufacture leading-edge semiconductors influences both international competitiveness and, by extension, national security.

It is known that the social rate of return from research and development is higher than the private rate of return to the company which conducted the R&D thanks to positive externalities to competitors. A study shows that a comparison of the increase in sales to a company (marginal private return) and the positive and negative externalities to other companies as a whole (marginal social return), brought about by the increase in research and development

¹⁵ Basic data P16: Proportion of intangible assets in total market capitalization

¹⁶ Basic data P17: Issues in disclosure of sustainability-related information

costs of individual companies, revealed that there are positive externalities, and that the social rate of return is estimated to be more than 2.5 times that of private rate of return.¹⁷ Therefore, leaving research and development to only private companies tend to result in under-investment, so it is important to pursue public-private R&D partnerships.

However, the rate of growth in research and development investment amounts is lower in Japan than other developed economies.¹⁸ It is therefore necessary for the government to lay out clear national strategies so both the public and private sectors can share future growth expectations, and, through new public-private partnerships, R&D investment can become more energetic and the social benefits of investment maximized.

To this end, incentives for applying private cash and deposits to research and development investment will be strengthened. Specifically, consideration will be advanced about the shape of the tax system to promote research and development investment by private-sector companies in order to further accelerate open innovation and boost overall R&D investment.

In particular, quantum technology, AI, biotechnology, and medicine are fields of science and technology linked directly to Japan's national interest. Therefore, in order for the government to present national strategies and goals, national strategies will be formulated; the public and private sectors will work in partnership on a radical expansion of science and technology investment, leading to Japan's renaissance as a scientific and technological nation.

To that end, incentives will be provided to companies increasing research and development investment. At the same time, a science and technology advisor will be established at the Prime Minister's official residence to provide information and advice to the Prime Minister.

(1) Quantum technology

Initiatives will be advanced systematically based on the “New Quantum Technology Strategy.”

Quantum technology has high applicability in the computational field (computing and simulation) as well as communications and encryption fields. Quantum computers are anticipated to have applications across a wide range of fields, such as accelerating the search for candidate pharmaceuticals, improving chemical materials, and alleviating traffic congestion.

By casting an eye towards fusion with other technological fields such as semiconductors and Beyond 5G as well as research into fields where these can be applied, research and development into making quantum computers larger and higher in performance will be approached from not a Japan-only perspective, but by promoting a global approach such as

¹⁷ Basic data P18: Size of externalities in research and development

¹⁸ Basic data P19: International comparison of total public and private research and development investment amounts

through creating partnerships with companies from leading like-minded countries. In order to secure the capability for designing and manufacturing the next-generation semiconductors which are essential for next-generation calculation platforms such as quantum computers, a project will be promoted to build a design and manufacturing platform within the 2020s through a U.S.-Japan public-private partnership.

In addition, the environment enabling verification of quantum technology will be established, with quantum computers and quantum-encrypted communications to be tested across a wide range of fields, including energy, finance, pharmaceutical development and medicine, materials chemistry, aviation, and mobility. Establishment of key hubs toward industrialization will also be promoted.

One concern about current quantum-encrypted communications is a drop in security, as use over long range (several tens of km or more) requires repeaters. Development will be promoted of quantum network technology, which enables communications remaining in the quantum state.

(2) AI implementation

AI technology is moving into the social implementation stage, with development toward industrialization becoming energetic. However, Japanese companies are implementing AI at a lower rate than U.S. companies.

It is important to accumulate practical testing and trial and error based on AI technology. Deep learning will be positioned as a priority field, with implementation and development promoted bearing the specific needs of companies uppermost in mind. In doing so, fusion will be promoted between AI and fields in which Japan has particular strengths, such as the physical sciences, chemistry, and machinery, which - in addition to climate change, disaster prevention, etc. - will create highly-competitive products and services.

In addition, data held by universities and national government institutions is currently dispersed among institutions as well as held in different formats. This initiative will enable connection with other data platforms as well as promote usage and application of private-sector companies etc.

In order to create an environment which enables usage of as much data as possible, development of technology will be promoted which makes machine learning possible of information which has been encrypted for privacy reasons.

Large investments have been made into AI technology on a global scale, and its development continues apace. National research institutions will proactively provide technical information to promote implementation of AI through private-sector applications. In addition, research team structures will be revised to enrich R&D into AI at national research institutions

etc.

(3) Biomanufacturing

Biomanufacturing involves using genetic technology to increase the volume of target substances that microorganisms produce, or make them create new substances. This field of research has the potential to achieve both economic growth as well as addressing global-scale social issues such as marine pollution or the shortage of food or resources.

Investments measured in the trillions of yen are ongoing in the U.S. and China, with international investment competition intensifying. Bold and focused investment will be made in this field. Investments will include promoting joint research and development with microorganism design platform companies as well as companies from different fields of endeavor with a view as far as large-scale manufacturing and social implementation. Initiatives will also cover human resources development, base creation, and development support for core technology such as genome synthesis and editing technology as well as microorganism fermentative production technology which manufacturers of miso, soy sauce, and alcoholic beverages around Japan have strengths in.

(4) Regenerative /cellular medicine and gene therapies

1) Regenerative and /cellular medicine and gene therapies

Initiatives in terms of regenerative /cellular medicine and gene therapies will include promoting clinical research and trials of new medical technologies, R&D oriented toward commercializing these medical technologies, strengthening the manufacturing platform for cells and vectors (media by which introduce genes to cells) utilized in treatments, and human resources development, leading to practical application of effective technologies. By breaking down the barriers existing between regenerative /cellular medicine and gene therapies, the establishment of integrated R&D and clinical research hubs will be promoted, in which genome editing technology in the field of gene therapy will be applied to regenerative /cellular medicine.

In addition to genome editing technology, revolutionary R&D will be pursued including next-generation iPS cells with high differentiation efficiency or low immunological rejection, organoids (miniature internal organs that are created artificially in vitro) which can examine drug efficacy etc. tailored to individual characteristics, as well as R&D of exosomes that are secreted from cells, aiming at application to diagnosis and treatment of disease.

2) Promoting genome medicine

In order to promote pharmaceutical development for cancer and intractable diseases, an

information platform will be built - and the environment concerning its usage and application urgently developed - for the loading and sharing of clinical information and whole genome analysis results.

In addition to analysis results aiming for the 100,000 genome scale, these results will also include multiomics (comprehensive information about biomolecules) analysis results.

3) Development of therapeutic agents and vaccines

As the global pharmaceuticals market continues to grow, initiatives will be progressed so that pharmaceutical development is a growth industry in Japan as well. Looking ahead, development of therapeutic agents and vaccines will be pursued, with a particular eye to future risks from infectious diseases.

(5) Reform of university education

In order to create globally-renowned research universities, a ten-trillion yen scale universities fund will be supported for schools which not only build their research capabilities, but also implement high-quality governance arrangements such as by separating research and management as well as promoting young researchers. This system will prioritize funding to initiatives which - led by people with advanced management capabilities, the core of university reform - lead to stronger research capabilities.

Additionally, in order to strengthen public-private innovation human resources, reorganization of university faculties and initiatives towards human resources development which goes beyond the framework of the humanities or the sciences will be accelerated. To that end, and bearing in mind the demands for human resources from industry and responding to the needs of aspiring students, the reorganization of university faculties will be promoted by boldly reviewing the regulations on universities as well as providing support for the initial investment required for reorganizing faculties and ongoing support for initial operational expenses after reorganization.

In addition, to promote the advancement of women in STEM, support will be strengthened for universities which actively work to ensure spaces for female students, and disclosure of information about the enrollment and promotion situation of women will be encouraged.

Finally, education cutting across humanities and science will be promoted at the senior high school level as well.

(6) Expo 2025 Osaka, Kansai, Japan

The Expo Osaka, Kansai, Japan to be held in 2025 will be a “People’s Living Lab” and a catalyst evoking hope for the future through new technology. As a showcase for new

technologies, it will demonstrate how Japan’s leading-edge innovations contribute to society.

While revising the Action Plan sequentially, preparations including regulatory reform and costs aspects will be advanced smoothly..

3. Accelerating Establishment of Startups and Promoting Open Innovation

(1) Formulating the startup development five-year plan

New added value will be created by working to shift the emphasis from scale expansion to creation of new businesses.

The economist Joseph Schumpeter expounded two seemingly-contradictory theories about the sources of innovation.¹⁹ His first theory (“Schumpeter Mark I”) is that the source of innovation lies in start-ups that are new entrants to the market. His second theory (“Schumpeter Mark II”) is that the source of innovation lies in large companies that have a wealth of internal capital as well as platforms that are capable of capturing value.

It is difficult to create innovation in a competitive market comprising only new companies, and also difficult to create innovation in a market monopolized by large companies. Market environments that are positioned right in between the two promote innovation.²⁰ This shows that reality is a fusion of Mark I and Mark II. To promote innovation, both of the following are important: (1) Promote the establishment of start-ups; (2) Create an environment for existing large companies to engage in open innovation.

In addition, the higher a country’s average rate of firm creation and destruction (an index of creative destruction), the higher the per capita rate of economic growth.²¹ In addition, young businesses (startups) have a higher rate of contribution to added value creation.²² By contrast, the corporate entry and exit rates in Japan remain at a low level compared to the U.S. and major European countries.²³

Nurturing startups will encourage the dynamism and growth of the Japanese economy, and is the key to addressing social issues. Therefore, a forum for consideration will be established within the Council of New Form of Capitalism Realization, and, with functions as a “guiding light” for implementation regarding the following items clarified, formulate by the end of this year the five-year plan with a view to increasing by 10 times in five years.

- 1) Usage of public procurement and radical expansion of SBIR system support for startups

¹⁹ Basic data P20: Schumpeter’s two theories about the source of innovation

²⁰ Basic data P21: Schumpeter’s two theories and evaluation results

²¹ Basic data P22: Relationship between firm creation and destruction and per capita rate of economic growth

²² Basic data P23: Relationship between firm size and added value creation

²³ Basic data P24 and P25: Trends in corporate entry and exit rates

The utilization of public procurement is important in nurturing startups. The support for companies which have been recently established (startups) provided through the Small Business Innovation Research (SBIR) system will be radically expanded. To that end, the specified subsidies based on the SBIR system will not only be expanded, but a funding stream dedicated to startups or consortiums including startups which satisfy certain requirements will be established.

At the same time, it is desirable that private-sector procurement also actively utilizes startups in the future. Private-sector businesses will adhere to the “Guidelines on Business Partnership Contracts with and Investment in Startups” and develop constructive relationships with startups.

2) Expanding public capital investment in venture capital, including overseas venture capital

It has been empirically proven through comparisons of companies which have received venture capital investment and those which have not that the former are more proactive about innovation and creating employment.²⁴

In the U.S., the rate of corporate entry is decreasing but the amount of venture capital investment is increasing, meaning that venture capital investment toward promising entrepreneurs is growing.

Notably, while the amount of venture capital investment in the U.S. was 36 trillion yen in 2021, in Japan it was a mere 0.23 trillion yen.²⁵

Therefore, as well as significantly expanding funding provision through limited liability investment to venture capital both in Japan and overseas, assistance taking a long-term perspective in coordination with venture capital will also be expanded. Doing so will not only nurture domestic venture capital but also attract investment from investors and venture capital overseas.

To ensure that a structure to carry out these initiatives is in place, the Japan Investment Corporation’s operational period will be extended to 2050. Doing so will resolve the issue of restricted fund investment terms limiting investment in startups which need time to achieve growth.

3) Redirecting personal financial assets and long-term investment funds such as GPIF to venture investment

²⁴ Basic data P26: Venture capital investment and employment/innovation

²⁵ Basic data P27: Comparison of venture capital investment in Japan and the U.S.

In addition to redirecting the 2,000 trillion yen of personal financial assets in Japan toward nurturing startups, pathways will be developed to redirect long-term investment funds such as GPIF to venture investment and infrastructure provision.

4) Expanding support structures for young human resources with excellent ideas and skills

Selecting and supporting young human resources with excellent ideas and skills is beneficial for nurturing startups. In Japan, the Information-technology Promotion Agency (IPA) runs the “MITOU Program” to discover and nurture such human resources in the IT field. To date, the MITOU Program has succeeded in around 300 startups or commercializations. It has been highly rated, but has limited scope. Therefore, after building arrangements to provide business advice - support will be expanded to the national government level.

In addition, initiatives will begin to select and support young human resources with excellent ideas and skills in fields other than IT as well (the National Institute of Advanced Industrial Science and Technology, the New Energy and Industrial Technology Development Organization, etc.)

As a result, the number of people selected will be expanded from around 70 to 500 per annum over the next five years.

5) Global startup campuses to form startup clusters

The creation of startup campus clusters will be promoted, including attracting involvement from universities both from Japan and overseas.

6) Revision of the systems for receiving credit guarantees at business establishment such as making management guarantees unnecessary

80% of people interested in starting a business cite personal guarantees as the key risk in the event of business failure.²⁶ The state of personal guarantees when receiving credit guarantees at business establishment will be revised, such as making management guarantees unnecessary.

Therefore, measures will be taken to promote methods of startup financing in which financial institutions do not require personal guarantees, such as establishing a new credit guarantee system which does not demand management guarantees on business startup.

In addition, consideration will be made of the future direction of small- to medium-sized business financing, with measures toward the establishment of financing practices which do not rely on management guarantees summarized within this fiscal year.

²⁶ Basic data P28: Risks when starting a business and conditions for borrowing from financial institutions

7) Implementing IPO process reform and consideration of SPAC

The amount of funding raised per IPO is 300 million dollars in the U.S. and 200 million dollars in Europe, but only 60 million dollars in Japan.²⁷ In addition to the small comparative amount of funding raised, the initial price (the stock price achieved on the first day of listing) in Japanese IPOs is significantly (+49%) higher than the opening price (the price at which the entrepreneur sells stocks at the time of listing).²⁸ This situation means that the amount of funding raised by entrepreneurs through IPOs is relatively small.

From the perspective of actively supporting the growth of startup companies in the future, the IPO process has just been reviewed in April this year, based on which reform will be implemented through the securities industry and the competition authorities.

With regard to SPAC (Special Purpose Acquisition Companies), consideration is being promoted with regard to establishment of the necessary systems if SPACs were to be implemented, paying particular attention to investor protection based on global standards.

8) Building the framework for stock options etc. to promote growth of startups which require time for commercialization

Consideration is being made of building the framework for stock options etc. to assist startups (such as in deep tech) which require time for commercialization or startups aiming for significant growth over the long term including through global expansion.

9) Consideration of types of incorporation to build the environment for startups addressing social issues

An increasing number of younger people thinking of establishing a startup do so with the aim of addressing social issues such as environmental problems or concerned with raising children. From the perspective of supporting the startups of so-called social entrepreneurs, consideration is being given to creating a new form of incorporation for private-sector actors taking on public-sector roles.

10) Establishing legislation to ensure the appropriateness of business dealings concerning freelancers, a form of startup which does not hire employees

²⁷ Basic data P29: International comparison of amount of funding raised per IPO

²⁸ Basic data P30: International comparison of opening price compared to initial price in IPOs

The number of people working as freelancers - a form of startup engaging in work without hiring employees - is also increasing in Japan, and has now reached 4.62 million people.²⁹ However, an increasing number of freelancers are experiencing difficulties such as delayed payment of remuneration or unilateral changes in work content,³⁰ and in addition, tend to rely heavily on specific clients (ordering parties).³¹

Many freelancers are not covered by the Act against Delay in Payment of Subcontract Proceeds, etc. to Subcontractors, which is a long-standing part of the SMEs legal framework. As well as working to strengthen the consultation structure, consideration - aimed at urgent submission to the Diet - is being given to the legal system to ensure the appropriateness of business dealings.

11) Creation of a secondary market for unlisted stocks

This initiative aims to create a framework in which startups are not forced into an IPO before they are ready, and can remain unlisted to grow over time. To do so, it is important to enable existing stockholders to easily trade in issued stocks (secondary trading).

In the U.S., there are several online matching platforms for professional investors enabling the sale and purchase of unlisted stocks issued by private-sector businesses.

To that end, a framework will be developed so that professional investors can trade unlisted stocks without using a stock exchange via a Proprietary Trading System (PTS) operated by a securities company, which functions similarly to an exchange. This initiative will also broaden the scope of investments available to professional investors.

12) Establishing entrepreneur development hubs overseas

Providing entrepreneurship education on the primary and secondary education stages by establishing a hub in startup clusters such as Silicon Valley, taking in young human resources aiming to start a business and offering guidance from local investors and entrepreneurs.

13) Entrepreneurship education

Promoting entrepreneurship education on the primary and secondary education stages by obtaining cooperation from industry and sending entrepreneurs to sites where training happens. In addition, entrepreneur training will be rolled out horizontally by utilizing AI and deep tech at universities and technical colleges.

²⁹ Basic data P31: State of freelancing in Japan

³⁰ Basic data P32: Details of trouble encountered by freelancers

³¹ Basic data P33: Degree of reliance by freelancers on specific clients for sales

14) Strengthening intellectual property rights strategies at startups and universities

Working toward building a framework for startups to commercialize university intellectual property rights, support will be strengthened for international patent applications by universities, joint patent rules will be revised, and restrictions on universities obtaining stocks and share warrants abolished.

(2) Value-added creation and open innovation

Existing companies must be encouraged to shift from focusing on sales to creating new added value.

It is difficult for blue-chip companies to maintain growth rates. However, a recent empirical analysis has revealed that even companies using older technologies can stay in business if they also adopt and use new technologies.³²

To encourage open innovation, where existing companies collaborate with startups, etc., they must withdraw from underperforming business fields and invest management resources in fields with growth potential and profitability, thereby promoting regeneration.

1) Establishment of voluntary liquidation legislation for business restructuring

Debt levels amongst Japanese corporations have increased by more than 70 trillion yen since the COVID-19 pandemic.³³ In addition, amongst companies reporting excessive debt, 32.3% of large companies and 34.5% of SMEs reported that debt was holding them back from restructuring their businesses.³⁴

Companies who responded that they might consider business rehabilitation if the pandemic continued were asked about the essential factors when considering business revitalization. Factors include ensuring these procedures would not affect their current business or transactions (45.2%) and that the procedures would be brief (30.9%).³⁵

In European countries, unlike Japan, in addition to insolvency proceedings, Europe has systems in which rights modifications (e.g., reduction of financial obligations) can be made after a majority vote for business restructuring, etc., without requiring the consent of all lenders. However, court approval is required.³⁶

A new legal system for business restructuring should be studied and submitted to the Diet as soon as possible to facilitate post-COVID-19 business restructuring.

For SMEs in particular, accompanying support will be provided by more than 30,000

³² Basic Data P34: Sustainability of Companies Using Old Technologies

³³ Basic Data P35: Impacts of COVID-19 on Corporate Debt

³⁴ Basic Data P36: Impact of Debt on Business Restructuring Efforts

³⁵ Basic Data P37: Corporate Areas of Focus During Business Rehabilitation

³⁶ Basic Data P38: Overview of Overseas Voluntary Liquidation and Business Rehabilitation Systems

authorized support organizations nationwide based on the Revitalization Package for Small- and Medium-Sized Enterprises. In addition, based on the Guidelines for Business Revitalization, etc. of Small- and Medium-sized Enterprises, the government will promote rehabilitation in a manner that does not, in principle, require managing staff to resign.

2) Review of the taxation system and other rules and regulations to promote open innovation amongst existing companies

Significantly few Japanese companies invest in startups compared to Europe and the United States.³⁷ Japan also has comparatively few mergers and acquisitions (M&A) with startups.³⁸

Investment and acquisition are important both as an exit strategy for startups and as a way to promote open innovation amongst large pre-existing corporations. Therefore, to promote open innovation, the government will re-examine areas such as taxation, taking into account effectiveness to date.

Additionally, to facilitate public stock offerings for M&A, the government will perform a review by next summer with a focus on also protecting investors. Essentially, when a listed company conducts a public stock offering for M&A purposes, the Japan Securities Dealers Association's self-regulations require it to carry out the M&A within one year (in principle) and to disclose alternate uses of proceeds if the M&A is not executed. However, commentators have pointed out that these self-regulations have limited the scope of public stock offerings, meaning they are only used for M&As.

3) Business management reforms (increased markup ratio, improved international competitiveness)

Since labor productivity is based on the price a product/service is sold for minus costs, productivity is low not only when costs are high but also when sales prices are low. From a markup ratio perspective (which indicates the price a product is sold for compared to its manufacturing cost); Japan is the lowest among the G7 countries. Therefore, Japanese companies will be encouraged to change their focus from selling at a lower price by cutting costs to introducing new products and services with added value and selling them at a reasonable price.

The government will work with companies in emerging countries to solve local social issues by creating new products and services before reverse-importing them to Japan (reverse innovation), thereby accelerating management reforms that improve Japanese companies' markup rates and international competitiveness.

³⁷ Basic Data P39: International Comparison of Investment in Startups by Companies

³⁸ Basic Data P40: International Comparison of Mergers and Acquisitions of Startups

4) Creating corporate environments that enable long-term investment

The transformation to new capitalism will move away from corporate behavior that aims for short-term profits through excessive price competitiveness. For this reason, the government is aiming for Japanese companies to achieve long-term improvements in corporate value by utilizing their 320 trillion yen of corporate cash equivalents to promote focused investment and R&D in key areas. We will continue promoting corporate governance reforms and enhancing disclosure systems to facilitate investor communication.

5) Promoting open innovation with deep tech startups

For startups with technological capabilities but no proven results, government support is effective for building these results and promoting open innovation with large corporations (e.g., NEDO). These efforts will be promoted amongst deep tech startups and others.

4. Investment in GX (Green Transformation) and DX (Digital Transformation)

(1) Investment in GX

Climate change is the biggest challenge to be overcome by the realization of new capitalism. The government will transform society and the economy to reduce greenhouse gas emissions by 46% in fiscal 2030 and achieve net-zero greenhouse gas emissions by 2050.

The situation in Ukraine requires Japan to reduce its dependence on Russia for resources and energy through further diversification of supplies and to improve procurement abilities to secure stable resources and energy.

The government will also accelerate decarbonization efforts, and energy self-sufficiency will be increased based on the premise of securing a stable and affordable energy supply. To achieve these goals, the government will promote thorough energy efficiency and maximize renewable energy, nuclear power, and other power sources that contribute to energy security and have substantial decarbonization effects. It will also work to introduce renewable energy as much as possible while curbing the burden on the public and aiming for coexistence with local communities. These actions will be based on the concept of S+3E while ensuring that renewable energy is, in principle, prioritized as a primary energy source. In addition, the government is implementing measures based on the current electricity supply-demand strain and the assumption that a similar situation may occur in the future. Efforts include swiftly securing supply capacity and improving electricity networks and systems while also working to maintain and strengthen supply chains to ensure stable use of decarbonized energy sources.

The quick realization of a significant transformation in economic and social structure through decarbonization will also help strengthen Japan's international competitiveness.

While ensuring energy security, we will compile a roadmap for the next decade by the end of the year based on the Clean Energy Strategy Interim Report that outlines the path to socioeconomic and industrial structural reforms for decarbonization via public-private partnerships.

1) New policy initiatives

The government will invest 150 trillion yen over the next ten years towards green transformation (GX) through public-private sector collaboration with the simultaneous aim of meeting international commitments, strengthening Japan's industrial competitiveness, and achieving economic growth (some international organizations estimate that a threefold increase over current investment levels will be required).

To realize these changes, the private sector must make ambitious and bold investments in decarbonization ahead of time based on a perspective that looks beyond the next decade. The government will, therefore, produce a comprehensive 10-year roadmap for GX investment that includes regulations, market design, government support, financial frameworks, and infrastructure development. The roadmap will include five new policy initiatives that will significantly increase predictability for corporate investment and allow for maximum utilization of market trading among many players.

i) Establishment of GX Economic Transition Bonds (tentative name)

To increase predictability for corporations, Japan's will to strongly encourage long-term private investment must be presented in a tangible form to help prime private investment. This will must then be used to achieve GX by all possible means. For this purpose, the government plans to swiftly procure support funding for the promotion of GX over the next decade, clarifying its commitment to the private sector and the marketplace.

To realize investments of over 150 trillion yen over the next decade, we will embody and make maximum use of the "Pro-Growth Carbon Pricing" that has an effect on maximizing both growth promotion and emissions reduction/absorption.

Under this concept, we will consider procuring prior government funds of sufficient size to lead public-private investment of more than 150 trillion yen through "GX Economic Transition Bonds (tentative name)" backed by future financial resources and promptly providing long-term private investment support in decarbonization in a form foreseeable over multiple years, together with new regulations and systems.

ii) Investment promotion measures that integrate regulations and support

The government's large-scale, medium-term, strategic fiscal mobilization will be combined

with regulatory and institutional measures to maximize effectiveness. The government will establish a new institutional framework that enhances business profitability and investment predictability when utilizing regulatory methods such as strengthening energy efficiency standards and expanding new energy and decarbonized power sources such as hydrogen and ammonia.

iii) Step by step development and utilization of GX League

A trial implementation of the GX League will be implemented this fiscal year with support from approximately 440 companies (covering over 40% of Japan's CO2 emissions). More significant developments will be implemented in the future, including full-scale efforts to promote voluntary emissions trading and the development of a carbon credit market starting next fiscal year.

(iv) Utilizing new financial instruments

Global ESG funds will be attracted by utilizing the government's large-scale, medium-term, strategic fiscal stimulus as a starting point. Expansions to green finance will be combined with new financial approaches, such as transition finance and innovation finance.

In addition to enhancing corporate disclosure, the credibility of ESG evaluation organizations will be improved, and an infrastructure for data provision will be developed.

v) Strategies for international expansion, including the concept of Asia Zero Emissions Community

Cooperation to promote decarbonization in Asian countries will be strengthened by realizing the concept of Asia Zero Emissions Community. In addition, innovative cooperation in clean energy will be promoted with developed countries such as the United States.

Toward materialization of i) through v) above, “GX Executive Council” will be newly set up at the Prime Minister's Office this summer or later to discuss/consider and promptly reach conclusions.

2) Examples of specific actions

(Hydrogen, ammonia)

With a view to the mass introduction of domestically produced hydrogen and ammonia, support will be provided for the establishment of domestic and international supply chains to quickly narrow the fuel price gap with other fuels and develop supply bases.

(Renewable energy such as offshore wind power)

The government will work to introduce renewable energy as much as possible while curbing the burden on the public and aiming for coexistence with local communities. These actions will be based on the concept of S+3E while ensuring that renewable energy is, in principle, prioritized as a primary energy source. Especially for offshore wind power, the government will promote to form the projects, reduce the cost of floating structures, and implement appropriate environmental impact assessments. It will also accelerate to invite new players to domestic market and meet international standards for establishing domestic supply chain.

(CCS)

To facilitate private sectors to commence CCS operations by 2030, a CCS roadmap that clarifies CCS operators' legal responsibilities and support measures will be compiled by the end of this year. Consideration of a business framework including legislations will be accelerated as well.

(Carbon recycling)

R&D aimed at cost reductions and the scaling up of manufacturing facilities will be promoted to support technologies that enable the effective use of CO₂, such as synthetic fuels, sustainable aviation fuels (SAF), synthetic methane, concrete, and bio-manufacturing. In addition, the development of rules related to CO₂ emissions during the use of these technologies will also be promoted.

(Automotive)

Considering potential future use of synthetic fuels in automobiles with an internal combustion engine, with a view to achieving some goals such as 100% of new passenger vehicle sales being for vehicles that are electrically driven (electric vehicles, fuel cell vehicles, plug-in hybrid vehicles and hybrid vehicles) by 2035, support will be provided for such as purchasing and infrastructure development, promotion of domestic manufacturing of batteries, and positive transformations amongst small, medium, and micro-sized suppliers. Furthermore, to achieve carbon neutrality through production, utilization, and disposal in 2050, various options will be pursued, such as technological developments. At the same time, all possible measures will be taken to ensure that the automobile industry, a critical Japanese industry, will continue to maintain and strengthen its international competitiveness and lead the world.

(Houses and buildings)

By making compliance with energy efficiency standards mandatory for homes and buildings

by FY2025 and by supporting advanced energy efficiency investments, the government aims to ensure the energy efficiency performance of houses and buildings newly constructed after FY2030 to meet the level of the ZEH (Net Zero Energy House) and ZEB(Net Zero Energy Building) standard.

(Semiconductors with leading power-saving performance)

To address increasing energy use by the computational infrastructure required for large-scale data processing, support will be provided for advanced semiconductor development and human resources development based on collaboration with the U.S. Support will also be provided to expand the production of semiconductors and manufacturing equipment and materials, which are vital for electrification efforts.

(Batteries)

To expand the manufacturing base for batteries and materials, support will be provided to strengthen domestic capital investment, secure upstream resources, enable strategic overseas expansion, develop next-generation batteries, and develop human resources, etc.

(Decarbonization of other industrial sectors)

To decarbonize industrial heat demand and manufacturing processes support will be provided for SMEs in particular to receive detailed energy audits and capital investment to increase the usage of currently available technologies and equipment, such as industrial heat pumps. Support will also be provided for the steel and chemical industries to encourage large-scale capital investment in energy conversion, such as electrification and conversion to gas.

In addition to supporting innovative technologies that contribute to transforming industrial structures, such as hydrogen reduction ironmaking and CO₂ separation, capture, and utilization, consideration will be made regarding strengthening support measures, such as investing additional financial resources to the Green Innovation Fund. These considerations will be made to seamlessly continue support measures for the development of innovative technologies that contribute to the transformation of the energy demand and supply structure—including next-generation solar cells, innovative geothermal power generation, advanced nuclear reactors (advanced light water reactors, miniaturized reactors, high-temperature gas-cooled reactor, fast reactors)—and for the maintenance and strengthening of human resource development and industrial infrastructure. Research and development of fusion will be steadily promoted through international collaborations such as the ITER project and the development of technologies in the private sector.

(Decarbonization amongst communities and in daily life)

Regional decarbonization will be accelerated through investment in decarbonization transitions by fostering human resource, financial support, and promoting changes in consumer awareness and behavior through point systems, SMEs-centric measures, forest carbon sink measures, resource autonomy, the transition to a circular economy, heat illness prevention, etc.

(2) Investment in DX

Since DX is a source of new added value and is key to solving social issues, the Vision for a Digital Garden City Nation will be promoted as described in V.1. Additionally, as described in V.2, a decentralized digital society will be produced by providing the environment required to transition from a unipolar, centrally-managed virtual space to a multipolar virtual space. In addition to these actions, the following individual policies for DX investment will also be promoted:

1) Research and development for the realization of post-5G and 6G

Alongside promoting the development of post-5G systems, support will also be provided for the so-called 6G, a next-generation communication infrastructure. To introduce these improvements in around 2030, technologies will be established in around five years that will realize transmission speeds 100 times faster than current standards. Ultra-low power consumption of 1/100th that of current technologies will also be enabled. These improvements will be achieved by utilizing optical communication technologies for everything from networks to devices.

2) Develop digital market environments

Under The Act on Improving Transparency and Fairness of Digital Platforms (TFDPA), digital platform operations by regulated businesses will be evaluated this fiscal year, and results will be made public. In addition, the digital advertising market has been added to the Act's scope.

The impacts caused by platform operators supplying smartphone operating systems and new customer contact points (voice assistants and wearables) on the competitive environment in the digital market will continue to be evaluated to compile a final report.

3) Credit card interchange fee transparency

Interchange fees (credit card fees paid by the payment company contracted by the store to the payment company contracted by the user) account for approximately 70% of credit card merchants' fees. The Japan Fair Trade Commission has clarified which actions are desirable

in terms of competition policy and which are problematic under the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade. In light of this, credit card companies will be asked to disclose their standard interchange fee rates to promote competition.

4) Promoting digital health

To help promote digital health initiatives, additional medical fees system for the use of approved applications will be practiced. This initiative also supports implementing voluntary certification systems for healthcare products and services.

5) Promoting the use of Individual Number Cards (My Number Card)

Individual Number Cards (My Number Card) will act as a passport for a digital society. Increased convenience will be provided to users by enabling their use as a health insurance card, integrating them with driver's licenses, and enabling smartphone-based functionality. Usage will also be encouraged by creating public awareness of the cards' safety and security, on the system, as proven by the acquisition of international standard security certifications.

6) DX for small and medium-sized enterprises

It is vital to strengthen competitiveness for small and medium-sized subcontractors through productivity improvements and optimizing trade. To promote DX amongst SMEs, tools will be disseminated to diagnose management issues, expert support will be provided, and firms will be assisted in introducing IT systems.

For larger companies, fundamental frameworks, such as the development of rules, will also be developed.

7) Medical DX

The government and relevant industries will work together to establish a national medical information platform, standardize electronic medical record information, and apply DX to the revision of medical service fees, and take legislative measures on the use of medical information. Accordingly, we will establish a "Medical DX Promotion Headquarters" (name tentative) comprising relevant Cabinet ministers and headed by the prime minister.

8) Architectural and urban DX

The use of a variety of data will be promoted: three-dimensional data (building information modeling or BIM) on building shape, material, and construction methods; 3D city models (PLATEAU) for urban spaces such as buildings and roads; unique identification numbers for land and buildings (real estate IDs).

9) Cyber security

Cyber-attacks have been targeting weak points in the supply chains of large and small and medium-sized businesses to penetrate targets. To enhance cyber security throughout the supply chain, the development of security personnel will be promoted in companies and government agencies, etc. Subsidies will also be provided for the introduction of security systems by SMEs. In addition, support will also be provided for cyber security countermeasures for IoT devices manufactured by SMEs.

As cyber-attacks become more sophisticated and complex, the government will also take the lead in strengthening the capacity to analyze cyber-attack countermeasures and system vulnerabilities.

IV. Building Economic and Social Systems for Solving Social Issues

Producing these systems requires a shift from a perspective that focuses on the short-term profitability of individual companies to one that emphasizes social value.

It is no longer viable to focus on short-term increases in corporate profits. Companies must fulfill their social and environmental responsibilities (human capital and human rights, climate change, diversity, etc.) to maintain businesses' sustainability. A multi-stakeholder corporate society that considers social and environmental impacts in addition to financial risk/return will be promoted.

Although Japan is known as a developed country that is nonetheless facing challenges, we will also be the first in the world to view social issues as energy for growth and to incorporate mechanisms for solving them into our economy and society.

1. Consider reforms of new and existing corporate forms that play public roles in the private sector

As society becomes more complex, the private sector is expected to take the initiative in providing detailed responses to diverse needs through services previously handled by the government. Examples include medical care, long-term care, education, measures against loneliness and isolation, environmental protection, etc. Against this backdrop, many Japanese entrepreneurs also want to work on social issues while producing economic growth.

While producing shareholder profit is a central premise of traditional corporations, non-profit organizations have limitations as business implementers and lack flexibility in fund procurement, making it difficult for them to solve large-scale issues.

New legal systems such as benefit corporations are now being developed in Europe and the U.S.³⁹ In the United States, 7,704 of these corporations were established between 2010 and 2017, spread widely across the country.⁴⁰ The overall amount invested in benefit corporations has also increased six-fold over the past five years, and the amount invested per corporation has increased four-fold. Investment is being seen not only by impact investors but also by regular profit-seeking investors.⁴¹

The government will consider the need for a new legal system as a new form of public-private partnership. A forum will be established to study this concept as part of the Council of New Form of Capitalism Realization. Considerations will also be made regarding reforming existing corporate forms, such as foundations and associations, from the perspective of improving convenience for the private sector.

2. Strengthening advocacy functions of competition regulators

In addition to enforcing the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade, competition regulators also investigate areas where competition is lacking due to trade practices or regulations and advocate improvements in these practices or reviews of regulations. There are strong expectations for the advocacy functions of the Japan Fair Trade Commission (JFTC) as DX and other social changes progress.

In the past few years, the JFTC has conducted competition-related fact-finding surveys and advocacy regarding cell phone rates, interbank transfer fees, initial public offerings by startups, etc.⁴² However, systems will be developed to fundamentally strengthen its advocacy functions.

3. Strengthening support for social entrepreneurs, including promoting donation culture and venture philanthropy

In the United States, the concept of philanthropy, in which a wide range of people, including successful entrepreneurs, provide returns to society through their business and contribute to solving social issues, is well established.

The Japanese government will consider using dormant deposits for private-sector activities that address social issues, including realizing SDGs. Discussions will be held regarding how investments and loans should be made, with a conclusion to be reached by the end of this fiscal year. In addition, the use of social finance to attract private donations, crowdfunding, and other forms of funding and human resources will be promoted. The creation of the new corporate forms (see above) and reforms of existing corporate forms, such as foundations and

³⁹ Basic Data P41: New corporate forms for public-facing roles

⁴⁰ Basic Data P42: Status of the establishment of benefit corporations

⁴¹ Basic Data P43: Investors in benefit corporations

⁴² Basic Data P44: The Fair Trade Commission's Advocacy Functions

associations, will also be considered.

Considerations will also be made regarding strengthening systems for training social entrepreneurs.

4. Promoting impact investing

The government will promote investment in social entrepreneurs along with impact investment (investment aiming to generate social and environmental impacts alongside financial returns) through public-private funds, etc.

It will also ensure that social bonds (bonds that limit the use of proceeds to social projects to solving social issues) appropriately disclose the social benefits of the projects being implemented. Guidelines will be developed, and examples of indicators will be provided for each social issue to serve as a reference for issuing entities.

5. Support for NPOs and other organizations that solve social issues such as loneliness and isolation

The ongoing COVID-19 pandemic has made life more difficult for households living in poverty, and problems of loneliness and isolation have become a serious social issue. Therefore, NPOs that serve as a bridge between people with difficulties and the government are vital. For this reason, the government will provide detailed support for NPO activities and those of other organizations working to combat loneliness and isolation.

The functions of public-private partnership platforms will also be strengthened to promote matching between local governments and companies, NPOs, etc., to solve regional issues.

PR for the hometown tax for companies will be promoted to help dispatch corporate staff to local governments.

6. Strengthening concessions (including PPP/PFI)

Concessions for public facilities managed by private operators (public facility, etc. operating project) will be strengthened.

The introduction of concessions (public facility, etc. operating project) will be promoted for all airports in principle, including airports established and managed by local governments while maximizing the value of airport management right.

Functional enhancements, such as increased capacity, remain necessary. For example, at Haneda Airport, coordination with the regions under the route should be steadily promoted to secure expanded capacity for the new flight routes over the city center introduced in March 2020. Narita Airport will first need steady implementation of functional enhancement projects, including constructing a third runway.

In addition to risk sharing based on the experience of the COVID-19 pandemic and other factors, the government will also study the implementation of concessions (public facility, etc. operating projects) in the future. These considerations will take into account the progress of functional enhancements at the airport and its relationship with the local community.

The introduction of concessions (public facility, etc. operating project) will also be promoted for public transportation terminals “Busta”, which connect railroads, buses, and taxis. The introduction of these businesses will also be promoted at stadiums, arenas, etc.

In the forestry sector, the establishment of Timber Harvesting Rights will be promoted for ten pilot sites based on the Timber Harvesting Rights system. A specific policy on establishing future Timber Harvesting Rights, including larger-scale and longer-term rights, will be developed by the end of this year.

In addition, efforts will be strengthened to expand PPP/PFI based on the newly formulated Action Plan, such as improvement of initiatives in which local governments give priority to the introduction of PPP/PFI.

V. Multi-polarization of the Economy and Society

By promoting the Vision for a Digital Garden City Nation, the government is aiming to shift from a unipolar concentration to a multipolar concentration.

Symbols of new capitalism will be both local and regional. Until now, Japan's economy and society have been unipolarly concentrated in one place from the perspective of people's lives, corporate activities, and national land formation. For example, in Japan, 73% of the total population lives in large cities with more than 500,000 people, higher than in other Western countries such as the U.S. (65%) and the U.K. (56%).⁴³

However, the COVID-19 pandemic has reaffirmed the importance of economic and social multi-polarization. Since COVID-19, there has been a shift in population from urban centers to more peripheral areas in large cities, and interest in rural migration has increased. Interest is exceptionally high among young people in their 20s and 30s. In addition to being attracted to the natural environments (31.5%), reasons cited included the ability to work in rural areas through telework (24.3%).⁴⁴

The development of digital technologies (DX) has brought with them the ability to shift our society from one which is unipolar to one which is multipolar. Digital services are a source of new added value and are crucial to solving the challenges facing Japan's rural areas, such as

⁴³ Basic Data P45: International Comparison of Concentration of Populations in Large Cities

⁴⁴ Basic Data P46: Interest in Rural Migration

declining birth rates, aging populations, and depopulation. Digital technologies mean physical distance is no longer a minus. The farming, mountain, and fishing villages that support our nation and the rich charms of these rural and regional areas, such as a relaxed lifestyle, will act as a core to providing extensive support for new lifestyles. We will create, discover, and laterally expand many small but vibrant local digital communities. We aim to build a win-win relationship between Tokyo and the metropolitan area and rural regions.

A multipolar economic society will be created in which diverse regions, companies, human resources, etc., become interconnected within this expanding network, creating added value.

1. Promoting the Vision for a Digital Garden City Nation

(1) Infrastructure development for the realization of the Vision for a Digital Garden City Nation

1) Providing optical fiber connections, 5G, data centers, etc. in every corner of the country

Based on the Infrastructure Development Plan for the Vision for a Digital Garden City Nation, digital infrastructure will be developed in urban and rural areas in an integrated manner.

For optical fiber connections, the government has set a mandatory target of achieving a household coverage rate of 99.9% by the end of FY2027 and will make further improvements in all areas where it is needed.

For 5G service, a mandatory target of 99% population coverage will be achieved by the end of FY2030. In addition, the deployment of local digital infrastructure, such as local 5G, will be promoted.

Over the next five years, around a dozen regional data centers will be established to meet the rapidly increasing demand for data and rebalance the concentration of data centers in the Tokyo area.

The regional dispersion of Internet Exchanges (IXs), relay points for submarine cables and land networks (landing stations) will be promoted. In addition, a domestic submarine cable that circles Japan (the Digital Garden City Superhighway) will also be completed by FY2025.

To enable the elderly and others unfamiliar with digital technology to learn how to use digital devices in places familiar to them, Digital Supporters will be established, ensuring that no one will be left behind.

2) Establishment of regional councils

To match the development of digital infrastructure and digital implementations in rural areas, regional councils will be established at the prefectural level, etc. with participation from local governments, telecommunications carriers, and other social implementation stakeholders.

3) Establishment of the Vision for a Digital Garden City Nation Realization Fund

Measures will be considered to support hardware and software projects conducted by motivated municipalities (cities, towns, and villages) for the planned implementation of digital technology in rural areas in cooperation with private businesses.

4) Vision for a Digital Garden City Nation Koshien

The Vision for a Digital Garden City Nation Koshien events (Digiden Koshien) will be held to uncover pioneering examples and ideas for future services in rural areas and expand their use in other areas. The events will award these initiatives and will see the participation from local governments, businesses, and citizens. The first Digiden Koshien for local governments will be held in summer this year, and the second Digiden Koshien will be held toward the end of this year in which a wider range of citizens and businesses are invited to participate.

5) Improving living environments in hilly and mountainous areas through digital technologies

Populations in hilly and mountainous areas are rapidly declining and aging. As a result, an increasing number of villages are finding it difficult to maintain and manage farmland and agricultural production activities and maintain their basic functionality as villages.

Despite these circumstances, efficient implementations of combined services through digital technologies have led to examples of businesses emerging which would be difficult to establish as a single entity. Examples include collecting agricultural products from elderly farmers and conducting mobile sales for those who have difficulty shopping.

To laterally expand these efforts, the government will promote the creation of organizations that provide mutual support over broad geographic regions.

6) Mass overhaul reforms of regulations and systems and implementing demonstration projects

The Special Commission on Digital Administrative Reform will intensively reform the following seven analog regulations: i) visual inspection regulations, ii) regular inspection and other inspection regulations, iii) field audit regulations, iv) residency/full-time regulations, v) written-notice regulations, vi) in-person course regulations, and vii) on-site viewing regulations.

A demonstration project will confirm whether digital technologies can replace existing regulations and systems.

The government will also promote Super City and Digital Garden Health Special Zone that are expected to lead the Vision for a Digital Garden City Nation.

(2) Promoting agriculture, forestry, fisheries, tourism, and education to support the Vision for a Digital Garden City Nation

1) Promoting agriculture, forestry, and fisheries, along with the Strategy for Sustainable Food Systems MeaDRI, toward establishing food security

To establish food security in Japan, food self-sufficiency will be improved by creating robust agriculture, forestry, and fisheries industries.

Since international raw materials prices for chemical fertilizer and feed remain high, the government considers establishing countermeasures, including how to procure stable supplies of these resources.

i) Implementation of the Strategy for Sustainable Food Systems MeaDRI

Initiatives will be promoted at every stage, from production to consumption. The initiatives include reducing the use of chemical pesticides and fertilizers, promoting organic farming, and visualizing the reductions of environmental impact at the production stage for appropriate assessment by consumers.

ii) Expansion of the Export of Agricultural, Forestry and Fishery Products and Foods

The government aims to achieve 2 trillion yen of agricultural, forestry and fishery products and food exports in 2025 to reach its target of 5 trillion yen in 2030. The program will certify export promotion organizations by product category to support demand development. It will also support the development of export-oriented facilities and promote investment by businesses trying to export their products.

iii) Smart agriculture, forestry, and fisheries

Using digital technologies for agriculture, forestry, and fisheries will turn them into growth industries that are more attractive to young people. To achieve this goal, the government will promote smart agriculture, forestry, and fisheries that utilize digital technology by fostering and supporting agricultural support services and human resource development. Regional consortiums of interested parties will be formed to expand the digital implementation as a hub of the region.

2) Support for industry that is tailored to local conditions, such as the revival of inbound tourism

With regard to the tourism industry, the government will stimulate domestic demand while ensuring safety and security and will promote the revitalization and high-value-added development of tourist destinations.

To achieve this, the government will promote introducing a customer management system and renovating accommodations to accommodate individual travelers. Furthermore, while closely monitoring infections in Japan and abroad, the government will promote improvements to systems for accepting foreign tourists to enable inbound travel to recover.

3) Improving the ICT environment for education

The GIGA School Concept will be promoted through developments such as providing one computing device per student and installing high-speed telecommunications networks. Digital technology will be used to enable optimal learning for children regardless of distance and time constraints.

To enable these improvements, we will develop a system to support computer troubleshooting and ICT support in schools and provide enhanced ICT training for teachers. In addition, a demonstration will be conducted to examine advantages and issues in preparation for the full-scale introduction of digital textbooks in FY2024.

(3) Ensuring security as a precondition for Vision for a Digital Garden City Nation

1) Accelerated investment in national resilience and disaster prevention and mitigation

Based on the Fundamental Plan for National Resilience, necessary and sufficient budgets will be secured, self-help efforts, mutual assistance, and public help will be appropriately combined, and integrated hard and soft initiatives will be vigorously promoted.

Based on medium- and long-term goals, the government will promote the Five-Year Acceleration Plan for Disaster Prevention, Disaster Mitigation and Building National Resilience. The plan aims to further accelerate and deepen related efforts and specifies the scale of additional projects required. We will thus promote the creation of a nation that will not succumb to disasters. In addition, we will promote advancements in disaster prevention and mitigation through AI, drones, and other digital technologies.

We are entering the 10th year since the Basic Act on National Resilience Contributing to Preventing and Mitigating Disasters for Developing Resilience in the Lives of the Citizenry was enacted. Results and experience gained to date will be reflected in the next Fundamental Plan for National Resilience. At the same time, the importance of continuing and stabilizing efforts to strengthen our nation through a clear medium- to long-term outlook will be considered, even after the Five-Year Acceleration Plan is complete.

2) Development of transportation and logistics infrastructure to support a prosperous garden city nation

To support rural lifestyles and economic growth, efforts will be made towards developing

and utilizing high-speed transportation networks such as expressways, new Shinkansen lines, the Linear Chuo Shinkansen, and international hub airports, ports, and other facilities. Regarding the Linear Chuo Shinkansen, we will promote early installation as a fast and stable transportation infrastructure connecting the three major metropolitan areas and their surrounding areas. At the same time, we will pursue efforts to resolve issues pertaining to water resources, environmental conservation, etc.

Regional transportation networks such as buses and railroads will be rebuilt while promoting the implementation of new technologies such as mobility as a service (MaaS) and automated driving. In addition, the convenience of rural transportation services will be improved by demonstrating a co-creation business model that combines transportation with other fields such as medical care and long-term care.

The use of a nationwide unoccupied house/lot information registration system will be promoted alongside developing satellite offices and other environments that make use of vacant houses, etc.

2. From a unipolarly managed virtual space to a multipolar virtual space

As various social activities become digitized, problems associated with the resulting centralization of digital spaces are becoming apparent. Examples include data being enclosed by specific platforms, the uneven distribution of wealth due to winner-take-all situations, and concerns about data handling.

Against this backdrop, there is a growing trend of creating new value through promoting a more decentralized and reliable Internet and spreading and expanding digital assets on the blockchain, with users managing and utilizing data themselves. The government will make efforts to produce the required environment for this decentralized digital society.

(1) Establishing a new framework of trust for the Internet

To realize the Trusted Web, a new trust framework on top of the Internet, which provides mechanisms to strengthen data control by individuals and corporations without relying on specific services, and mechanisms to verify exchanged data, the government will work to detail the functions needed to realize this concept. As part of these efforts, support and verification of use cases in various industrial fields will be implemented to promote international standardization.

(2) Improvements to promote Web 3.0, such as using NFTs (non-fungible tokens) based on blockchain technology

Innovations are emerging, including NFTs (non-fungible tokens) and DAOs (decentralized

autonomous organizations), which are based on blockchain technology. Blockchain technology can potentially change the nature of the traditional Internet and transform society through the multi-polarization of virtual spaces, including by directly interconnecting independent users. In response, consideration of developing an environment for the acceleration of Web 3.0 will be promoted.

(3) Expanded use of content, including the metaverse

In regard to the use of content (including the metaverse), we will consider measures to enable simple and centralized rights processing for the licensing of a vast and diverse range of copyrighted works and submit relevant bills to the ordinary Diet session next year. Thus, taking advantage of digitalization and networking as growth opportunities.

We will also promote the further sophistication of the content industry.

(4) Promoting FinTech

Opportunities for businesses to raise funds by issuing security tokens (securities digitized in the form of tokens: digital securities) will be expanded, thereby providing investment opportunities for a broader range of investors, including individual investors, and encouraging asset building. Currently, secondary trading of security tokens is executed only over-the-counter transactions with brokerage companies. A system will be promptly established to allow proprietary trading systems to handle security tokens as well.

When crypto-asset exchange service providers are to handle new crypto assets, the authorized self-regulatory organizations require extended periods for preliminary screening. These screening criteria will be relaxed while still taking user protection into consideration.

When there are multiple digital items or, content of the same type, issued on blockchains, it is unclear whether they legally qualify as crypto assets. Therefore, interpretive guidelines will be provided with an eye to whether or not they have economic functions as a means of payment.

3. Promoting overseas business investments by Japanese companies

With a view to strengthening Japanese growth potential and ensuring its economic security in the post-COVID-19 world economy, it is imperative for Japanese companies to expand their business globally in the fields where they have technological advantages. Many Japanese companies have advanced technologies not only in hardware but also in software, including business operations and services. However, they tend to be conservative in their investment decisions in the face of risks and hurdles inherent in overseas business. Under the circumstances, the Government will support overseas business investments by the companies with advanced technologies and will, including SMEs' activities to develop new products and

create overseas sales channels. Such efforts will increase repatriation of profits back home through dividend payments to the parent companies, which in turn could lead to broad-based wage hikes and enhanced R&D investments in Japan.

Specific measures to be taken by the Government will include the following: i)working as one team to systematically support overseas investments from the initial stages, through strengthened collaboration among relevant ministries, government agencies, and embassies/consulates inside and outside of Japan; ii)supporting overseas investments from upstream to downstream through information sharing and financial assistance, as well as effective use of equity investment functions of government agencies to be explored; and iii)taking the lead and reaching out to international organizations, governments of like-minded countries, and global investors in order to create more business opportunities in such areas as decarbonization and digitalization, with the aim of developing cooperative projects.

In order to plan and work out the measures mentioned above and coordinate with related ministries and agencies, the Global Business Investment Support Office (tentative name) will be established in the Cabinet Secretariat.

VI. Initiatives in Individual Fields

1. Responding to changes in the international environment

(1) Strengthening economic security

Supply chain resilience and public-private technical cooperation will be promptly implemented under the Economic Security Promotion Bill.

Specifically, after analyzing supply disruption risks (including future risks) in the supply chain, mid-to-long-term support measures will be developed. This will enable stable supplies of critical commodities, which are also the foundation of digitization and carbon neutrality, to be promptly secured. Examples include semiconductors and critical minerals, including rare earth metals, batteries, and pharmaceuticals. Additionally, the government will strengthen projects for the practical application of advanced key technologies in fields such as AI, quantum technologies, space, and the ocean, aiming to promptly reach a scale of 500 billion yen.

Furthermore, necessary measures for granting qualifications to those who handle critical information will be studied by verifying specific cases from international joint research, etc.

Ways to support private companies responsible for developing and implementing technologies vital for future generations, such as those possessing cutting-edge and sensitive technologies, will be considered, including enhancing capital strength.

Considering the importance of strengthening measures against cyber-attacks through

cooperation between the public and private sectors, the government will consider the necessary measures to strengthen this area. Examples include human resource development measures, such as the further expansion of cyber-related education and research infrastructure and institutional improvements to strengthen public-private partnerships to ensure cyber security.

(2) Promoting external economic partnerships

Japan has and will continue to be a trading and investment power. It will grow by connecting with the rest of the world and allowing the free flow of people, goods, money, and digital technologies to and from the world. The government will continue to build a nation that is open to the world.

The idea of a “Free and Open Indo-Pacific” advocated and promoted by our country has gained support from many countries. In cooperation with the U.S., Australia, India, ASEAN, Europe, and other countries and regions, and through utilizing the Japan-Australia-India-U.S. (Quad) efforts, Japan will strategically work towards the realization of this “Free and Open Indo-Pacific.”

Discussions on supply chain resilience, decarbonization and clean energy, digital economy, and other issues will be held among participating countries in the Indo-Pacific Economic Framework (IPEF). To achieve sustainable and inclusive economic growth in the Indo-Pacific region, Japan, in cooperation with partners including the U.S. and ASEAN countries, will aim to achieve tangible results which we can produce quickly.

Japan will work to ensure full implementation of the Regional Comprehensive Economic Partnership (RCEP) Agreement, which entered into force in January 2022. Japan will also lead the discussion of the UK's accession procedures for the Trans-Pacific Partnership (CTTPP) agreement while remaining at a high level.

Through the development of quality infrastructure utilizing Japan's advanced technologies, Japan will simultaneously obtain solutions to social issues and contribute to sustainable economic growth in the Asia-Pacific.

Japan will also play a central role in international rule-making to realize DFFT (Data Free Flow with Trust).

2. Space

By 2025, Japan will establish constellations of small satellites through public-private partnerships. This system will enable quick assessments during a large-scale disaster, even at night or when it is raining or snowing. In addition, the development and demonstration of next-generation technologies such as space optical communication networks will also be promoted to increase communication speed and capacity and eliminate concerns about interception and

interference of communications.

Additionally, to enable more domestic launches of commercial satellites, we will exert efforts to strengthen the international competitiveness of core launch vehicles such as the H3 Launch Vehicle. The commercialization of small commercial launch vehicles, the development of spaceports, and the development of human resources to support these activities will also be promoted.

The Quasi-Zenith Satellite System, which enables more precise positioning without relying on other countries' GPS systems, will be strengthened to realize a so-called Geospatial Society. Furthermore, the successor to the geostationary meteorological satellite Himawari, which will dramatically enhance our observation capabilities, will also be developed to improve the accuracy of forecasts of torrential rains and typhoons.

In addition, the Martian Moons eXploration (MMX) project and the Artemis Program, which conducts manned activities on the Moon, will be promoted to achieve the first collection and return of samples from the Mars-moon system and a Moon landing by Japanese astronauts in the late 2020s.

3. Oceans

We will enhance the activities for sharing ocean data among the members of both the public and private sectors for the utilization. The construction of an Arctic research vessel is steadily underway with a view to it entering service in FY2026.

We will develop technologies for autonomous underwater vehicles that can be used in deep water. This will advance oceanographic observations in exclusive economic zones and develop domestic marine resources such as seafloor hydrothermal deposits, methane hydrate, and rare-earth muds in the deep waters around Okinawa and other areas. In addition, the development of unmanned ocean observation systems will also be promoted.

.Furthermore, demonstrations, etc. of marine mobility technologies for next generation including autonomous surface vehicles and remotely operated vehicles will be conducted.

We will promote the appropriate utilization of the ocean area through offshore wind power generation, the establishment of domestic supply chains, and the development of critical technologies in the marine industry, as well as enhancing the competitiveness of the shipping and shipbuilding industries.

4. Developing financial markets

(1) Quarterly financial statements

Quarterly reports under the Financial Instruments and Exchange Act will be abolished and consolidated into the Exchange's quarterly financial statements. Legislation regarding this will

be submitted after specific measures are considered by the end of this year.

(2) Expanding Japan's role as an international financial center and training asset managers

The government aims to attract more foreign financial businesses to Japan's financial and capital markets in the future to expand Japan's role as an international financial center. This will be promoted through collaborative efforts by public and private sectors to support financial startup, including visa acquisition, foreign language support through the use of AI multilingual translation technology, etc., and support for aspects of lifestyle such as housing and medical care, provided by the Financial Market Entry Office, which conducts all promotions, examinations of license registration, etc. in English.

These actions will attract overseas financial businesses and high-level financial professionals with strong operational capabilities, while creating jobs and revitalizing the economy as well as developing and expanding high-level human resources in finance, including asset managers, through interactions with Japanese businesses and human resources. Additionally, asset managers will be added to the scope of the credit-guarantee system to support the financing of new asset management businesses.

(3) Scope of business of bank and firewall regulations to be reviewed

Last year's amendments to the Banking Act and other legislation have allowed banking groups, which had a limited scope of businesses, to conduct business that contributes to digitization, regional revitalization, and other areas. Based on this, the government will encourage banks to actively engage in projects that contribute to digitization and regional revitalization, etc., while following up on the implementation of new projects.

To enable one-stop financing and funding by financial institutions, the firewall regulations (prohibiting the non-consensual sharing of clients' non-public information between banks and securities companies in a financial group) were revised to make consent unnecessary when the client is a foreign corporation, listed company, etc., among others. In addition, considerations will be made of how the firewall regulations will apply to information on SMEs, etc., while working to prevent harmful effects such as conflicts of interest and abuse of dominant positions.

(4) Promote investment instead of savings through efforts by financial institutions

Households must receive more appropriate advice and solicitation from financial institutions, thereby promoting asset building.

Experts have pointed out that the Financial Instruments and Exchange Act has different

rules depending on whether advice is compensated. Even for similar advice, the system's application differs depending on how fees, etc., are to be received. These issues may hinder flexible business and fee design for consulting and advice by companies such as securities firms. While ensuring that consulting advice businesses can operate, from the perspective of customer-oriented business operations, this and other systems will be reviewed to ensure that appropriate advice and solicitation are provided that contribute to stable asset formation amongst the public.

To encourage asset management companies, etc. to supply financial products that benefit clients, measures should be taken to promote product governance (for example, structuring financial products and setting fees in line with client needs, providing information that contributes to appropriate product selection, and evaluating and verifying such initiatives) and to strengthen the governance of asset management companies, etc. to ensure product governance is performed.

(5) A full-scale, bold shift to business loans based on business potentials

Since DX and GX are causing changes to industrial structures, it is difficult for startups without tangible assets such as factories to obtain financing without real estate collateral or personal guarantees. Additionally, since raising funds through equity investment alone dilutes management equity, an environment must be created to allow growth capital to be raised in the most appropriate way according to the needs of management.

Based on this perspective, financial institutions will be required to evaluate and finance businesses based on the value of the business, such as its future potential, and not on real estate collateral. Therefore, we aim to submit a related bill to the Diet as soon as possible to establish a system that allows startups and other businesses to raise growth capital from financial institutions establishing security interests over all asset.

5. Global Health

Examples of health investment, nutrition measures, and other initiatives will be disseminated and investment impacts will be visualized to attract private capital to the global health sector (global health, Universal Health Coverage (UHC)). In addition, to increase procurement of pharmaceuticals and medical equipment from Japanese companies by groups like international organizations, procurement information on these groups will be collected and provided, along with accompanying support, to build relationships with procurement divisions, etc.

6. Promotion of culture, the arts, and sports

The preservation and utilization of cultural properties and cultural and artistic education will be promoted while ensuring that children have opportunities to view and experience culture and art. These industries will be promoted by supporting cultural and artistic activities and vitalizing the art market.

Culture-related industries will also be promoted, such as through initiatives on promoting filming locations in Japan and on e-sports.

Sports DX and the international expansion of Japan's sports business will also be promoted to help make the field of sports a growth industry.

7. Creation of new industries in Fukushima and other north-eastern regions

The government will promote the Fukushima Innovation Coast Framework, aiming to build new industrial bases in the Hamadori region. We will work to ensure the long-term, stable operation of the Fukushima International Research and Education Organization and accelerate efforts in research and development, industrialization, and human resource development.

The government will also do its utmost to enable restoration and recovery from the Great East Japan Earthquake, including actions like fostering understanding of safety through monitoring, supporting the industries including fishery to continue and expand their businesses, and addressing the reputational effects of the discharge of ALPS treated water at the TEPCO's Fukushima Daiichi Nuclear Power Station.

VII. A Framework for the Realization of New Capitalism

1. Formulation of process chart and following-up

A five-year timeline will be created to promote this action plan, and follow-ups will be conducted every fiscal year on the plan's implementation, promoting a PDCA cycle.

2. Cooperation between public and private sectors

New capitalism can only be realized through the public and private sectors carrying out their respective roles. Therefore, for each item in the plan, a division of roles between the public and private sectors will be clarified and promoted.

The government will work harder than ever to draw out the maximum power from the private sector, asking it to use to make the most of this power to solve social issues currently considered the government's domain.

3. Economic and fiscal management framework

The economic and fiscal management framework will adhere to three key points: bold monetary policy, flexible fiscal policy, and a growth strategy that stimulates private investment.

Amid the difficult fiscal situation, reforms will be carried out in two ways, keeping in mind

the medium and long-term sustainability of public finances.

The first is the single-annual-budget principle. A budget based solely on a single fiscal year makes it difficult to see the country's long-term direction and is less predictable, making it difficult to derive expected future growth rates. The adverse effects of the single-year budget principle will be corrected by utilizing funds and other resources according to the nature of the project.

Second, dynamic thinking will be utilized for tax reforms, considering future effects.

Grand Design and Action Plan for a New Form of Capitalism

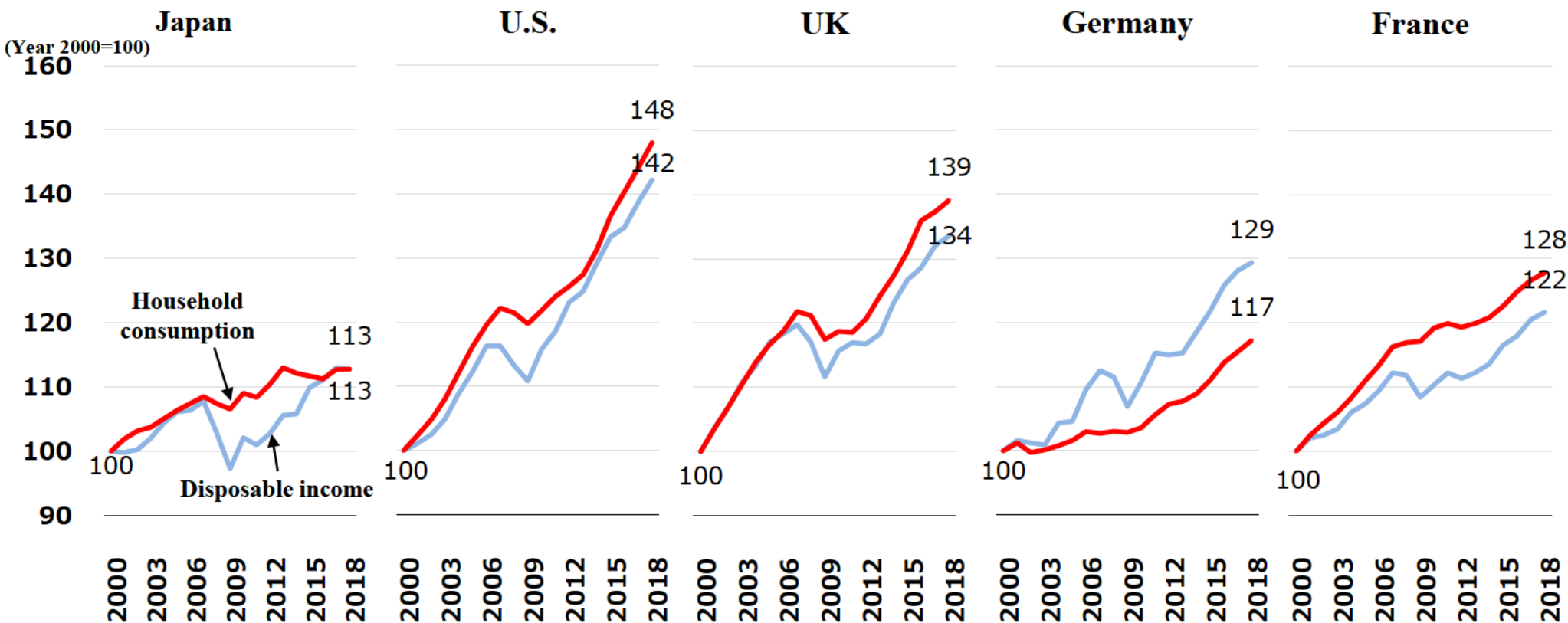
Basic Data

June 7, 2022

Comparison of Growth in Household Consumption and Disposable Income by Country

- Looking at the trends of household consumption and disposable income in developed economies, we can see that household consumption rises as disposable income rises.
- The primary reason behind the sluggish growth of household consumption in Japan is an inadequate increase in disposable income.

Comparison of growth in household consumption and disposable income by country (Year 2000=100)



Note: Household consumption: Local currency-based final consumption expenditure of households, with 2015 as the base year.

Disposable income: Local currency-based net national disposable income, with 2015 as the base year.

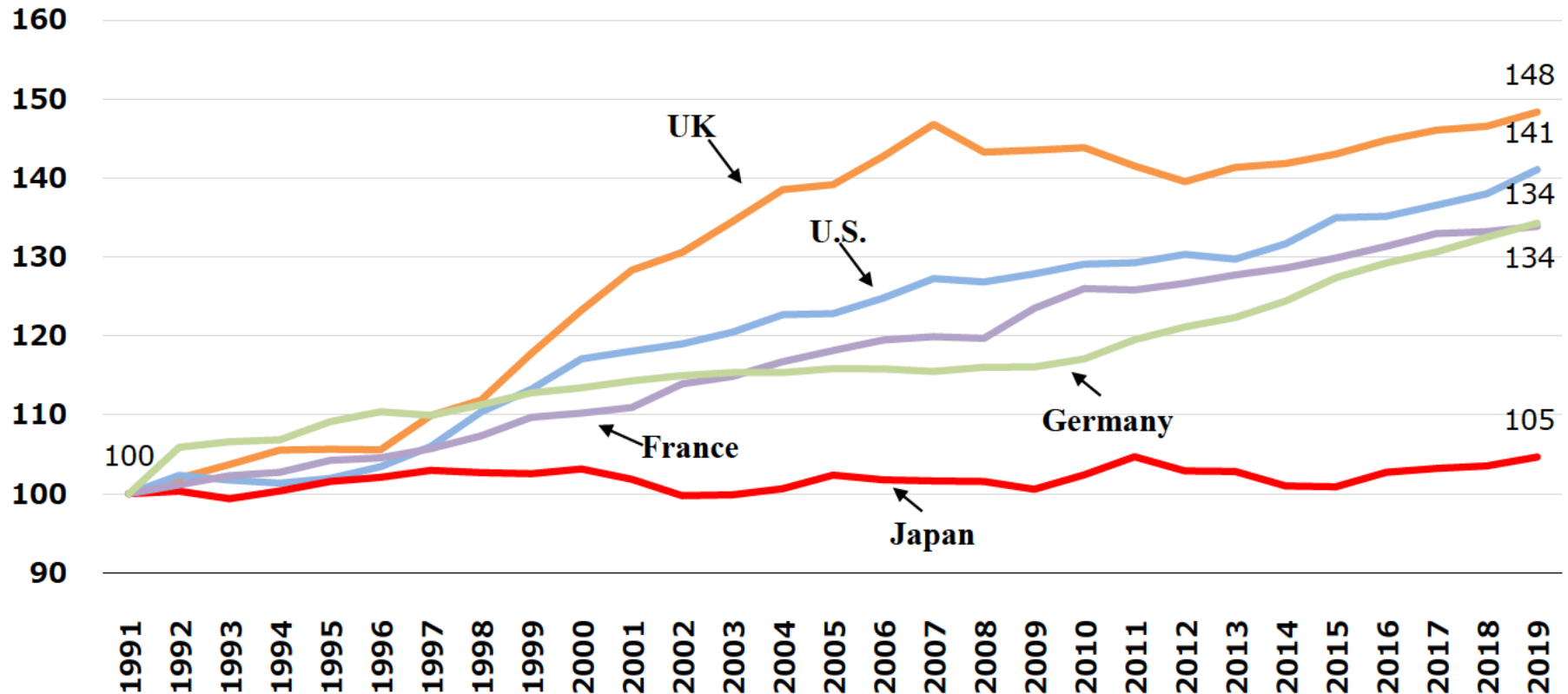
Source: Prepared based on OECD Stat.

Comparison of Actual Wage Increases Per Person by Country

Looking at the changes in actual wage increases per person in developed economies, we can see that from 1991 to 2019, actual wages per person grew by just 1.05 times for Japan against rises of 1.48 times for the UK, 1.41 times for the U.S., and 1.34 times for both France and Germany.

Actual wages per capita
(1991=100)

Comparison of actual wage increases per person by country (1991=100)



Note: Conversion to real wages based on U.S. dollars in 2019 (purchasing power parity basis).

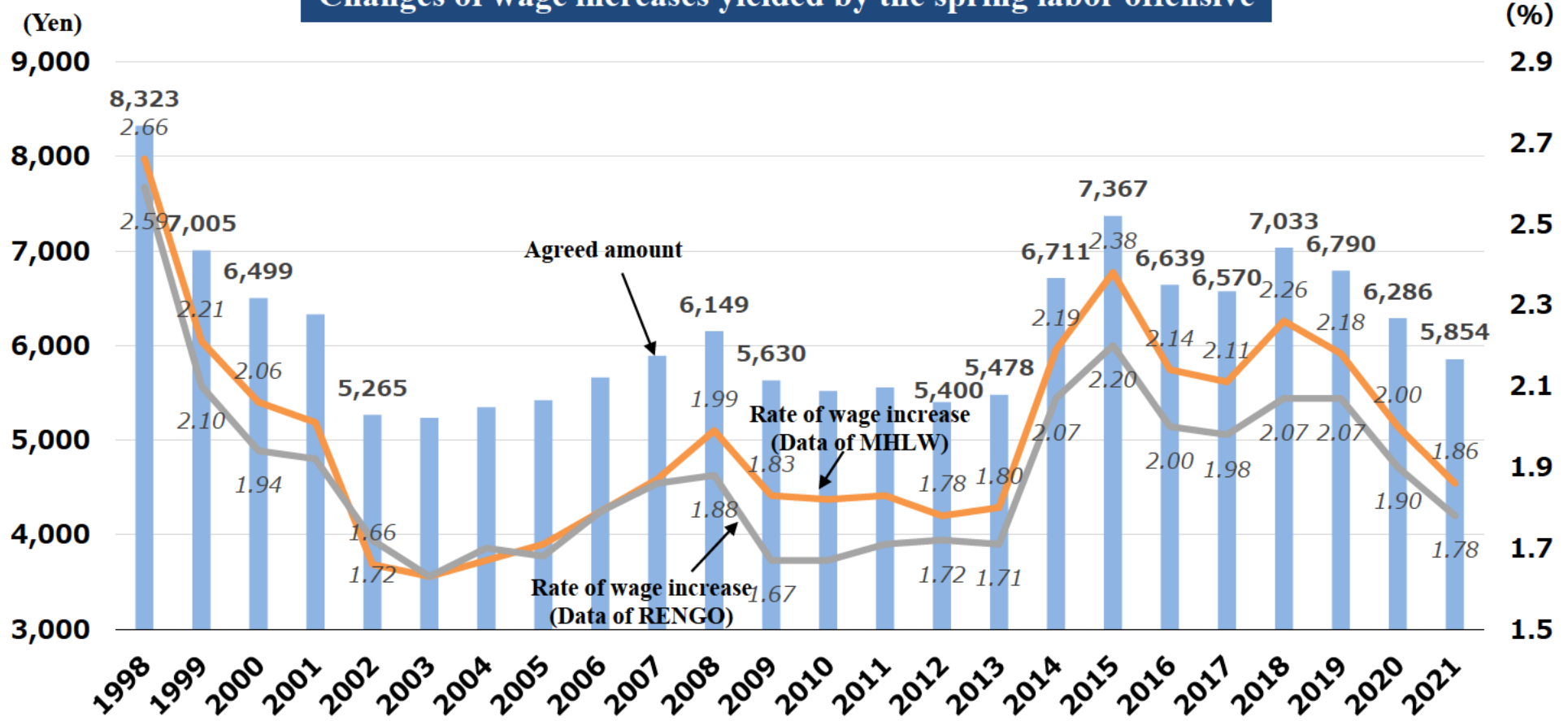
Figures were calculated by dividing the wages/salaries in the national accounts by the number of employees, then multiplying it by the ratio of the average weekly working hours of full-time employees against the average weekly working hours of employees.

Source: Prepared based on OECD Stat.

Changes from the Spring Labor Offensive

○ Although the spring labor offensive yielded wage increases of approximately 2%, or specifically, 2.18% in 2019, 2.00% in 2020, and 1.86% in 2021, the level of wage increases is on a declining trend.

Changes of wage increases yielded by the spring labor offensive



Note: 1) In principle, the target MHLW figures for tabulation before 2003 are companies listed on the 1st section of the Tokyo Stock Exchange or Osaka, and which have capital of 2 billion yen or more and labor unions with 1,000 or more employees; in principle, figures on and after 2004 are companies with capital of 1 billion yen or more and labor unions with 1,000 or more employees (weighted average).
 2) The aggregated number of unions for RENGO is based on scale, and includes medium- and small-scale unions with 299 or less members.

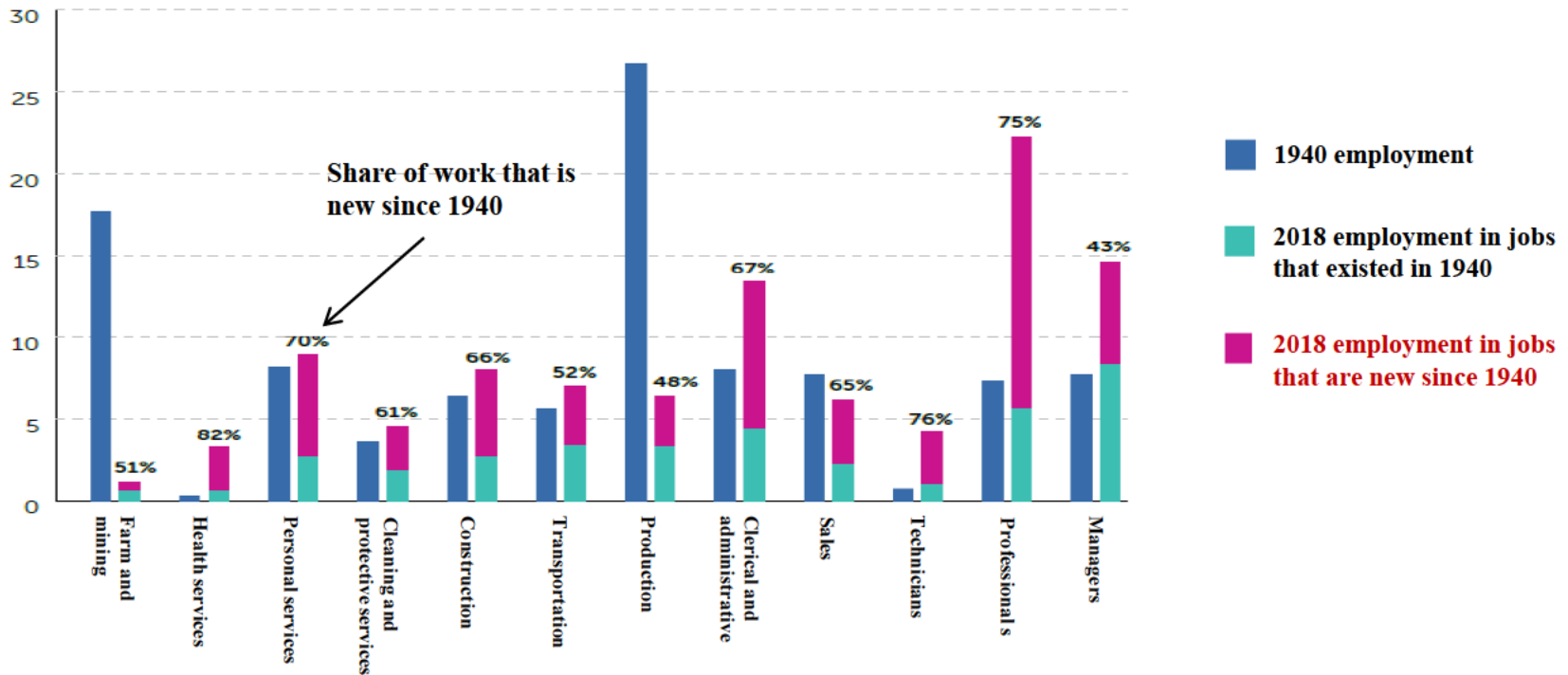
Source: MHLW, "Spring Labor Offensive Wage Increase Demands/Agreements for Major Private Companies"
 Japan Trade Union Confederation (JTUC-RENGO), "Tabulation of Final Responses for Spring Labor Offensive"

Increase in Employment Through New Occupations

- More than 60% of jobs done in 2018 had not yet been “invented” in 1940.
- As new occupations replace old ones, it is vital to constantly invest in human capital to improve their skills.

Employment share by occupations in 1940 and 2018

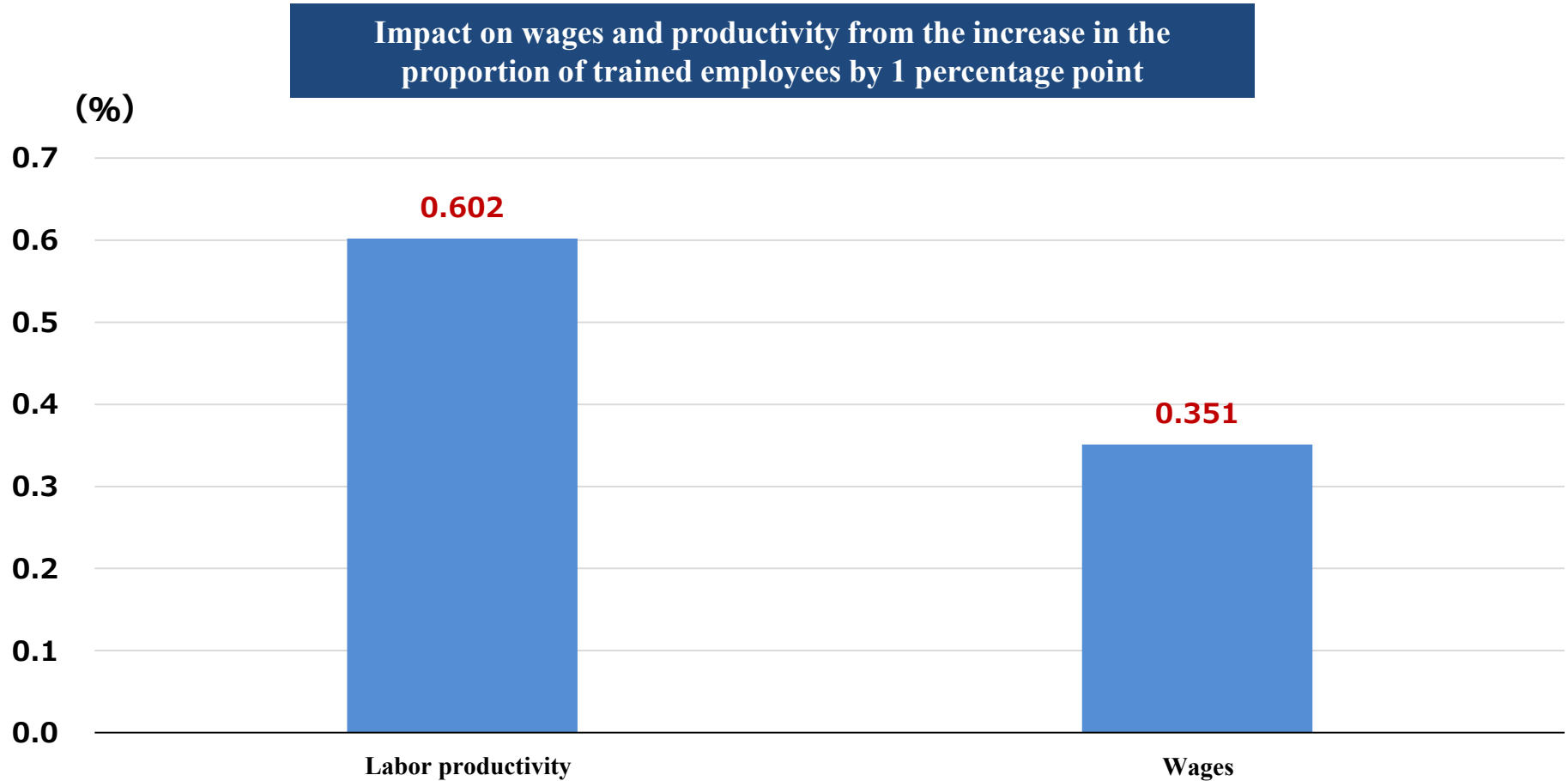
Employment share (%)



Note: In addition to comparing the distribution of employment in 1940 and 2018 across major occupations, the number of employees in 2018 is distinguished by occupations added between 1940 and 2018 and occupations that existed in 1940. Based on occupational coding set out by the U.S. Census Bureau from 1940 to 2018 (Census Alphabetical Index of Occupations) and other materials.
 Source: David Autor, David Mindell and Elisabeth Reynolds. 2020. “The work of the future: building better jobs in an age of intelligent machines” The MIT Task Force on the Work of the Future

Impact of Training

○ According to an analysis by British economists, when the proportion of trained employees in the industry increases by 1 percentage point, the labor productivity per worker in the same industry grows by 0.6% and the average wage per worker in the industry rises by 0.35%.



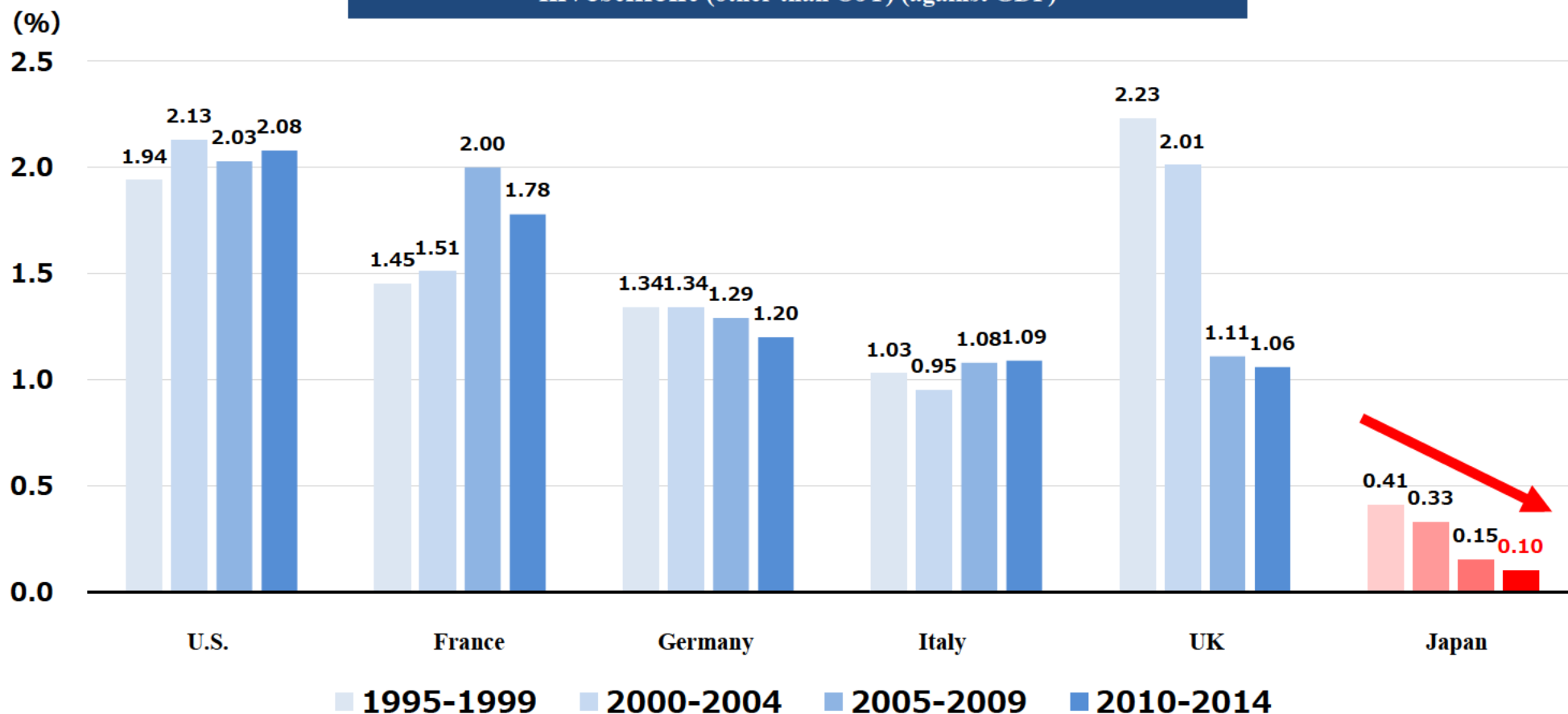
Note: Data on capital, labor, and output, categorized by industries, excluding service sectors, for 1984 to 1996 from the Annual Census of Production, is used. With regard to information on training, data used is for the proportion of trained workers by industry who responded that they have received education or training in the past four weeks, connected with their jobs, or jobs that they might be able to do in the future.

Source: Dearden, L., Reed, H., Van Reenen, J., 2006. The Impact of Training on Productivity and Wages: Evidence from British Panel Data. Oxford Bulletin of Economics and Statistics 68 (4), 397-421.

International Comparison of Corporate Personnel Investment

○ Personnel investment by Japanese corporations (training costs for OFF-JT excluding OJT) remained at 0.1% against GDP from 2010 to 2014, a relatively low level compared to developed countries such as the United States (2.08%) and France (1.78%). Moreover, this investment has been declining even further in recent years.

International comparison of corporate personnel investment (other than OJT) (against GDP)

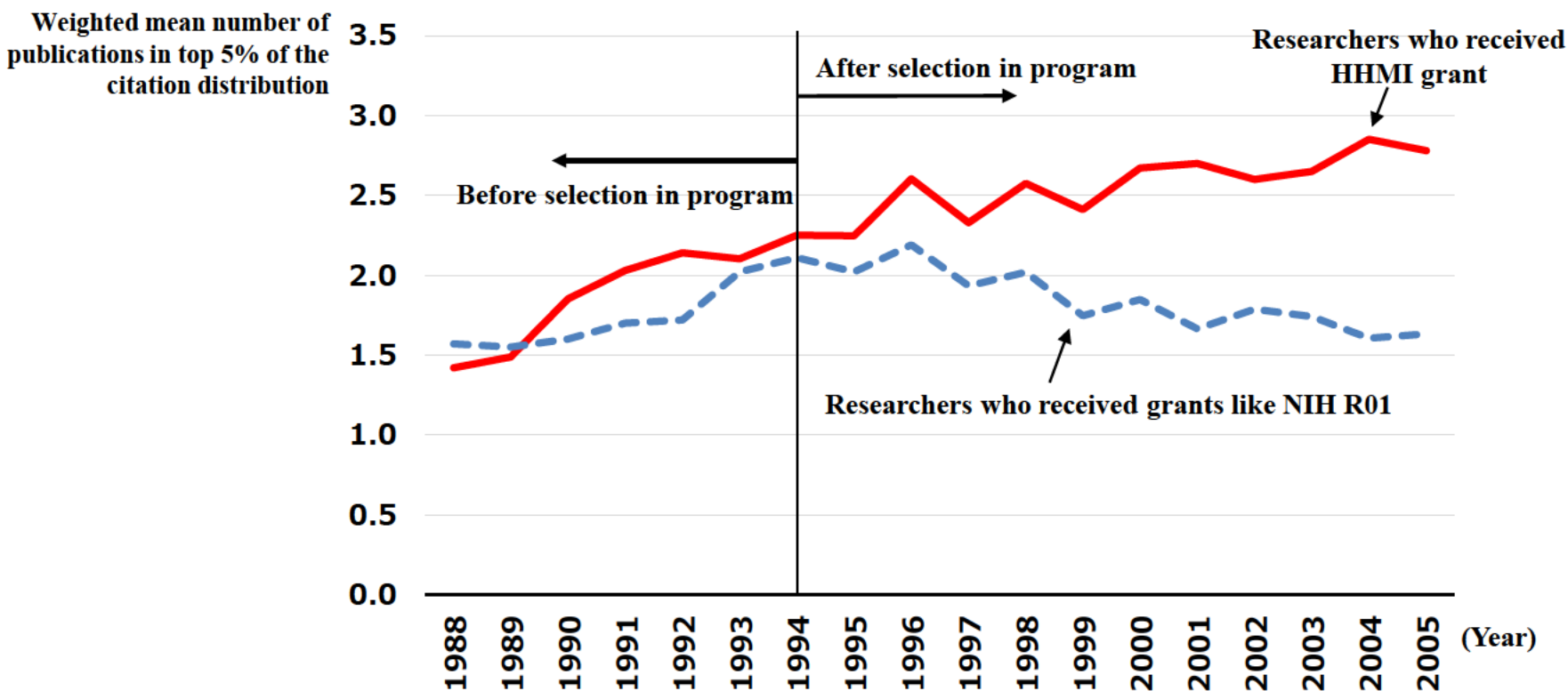


Note: Estimated by Professor Tsutomu Miyagawa (Faculty of Economics, Gakushuin University), using data from the Cabinet Office "System of National Accounts," JIP Database, and INTAN-Invest database. Source: Prepared based on MHLW, "Analysis of the Labour Economy 2018 - Human Resources Development according to Diversified Working Styles"

Comparison of Results from Research Subsidy Schemes which Tolerate Early Failure, and Typical Schemes

- In an empirical study by MIT economists that compared the results of grant schemes that tolerate early failure, allow for discretionary flexibility in research contents, and evaluate research over the long-term (Howard Hughes Medical Institute (HHMI) research fellowship), with typical, project-based grant schemes that evaluate research at regular intervals (National Institutes of Health (NIH) R01 Research Project Grant Program), researchers in the former scheme, compared to the latter scheme, produced twice the number of high-impact papers (number of citations ranking in the top 5%).

Publications in the top 5%



Note: Comparison of the number of papers per year ranked in the top 5% for the number of citations, written by 73 people selected for the HHMI program from 1993-95, and 393 scientists from among scientists in the same field who received the NIH R01 Grant and five elite scholarships selected by the authors. The impact of sampling bias from being selected for the HHMI program itself has been controlled for.

Source: Pierre Azoulay & Joshua S. Graff Zivin & Gustavo Manso, 2011. "Incentives and creativity: evidence from the academic life sciences," RAND Journal of Economics, vol. 42(3), pages 527-554.

Reference: Comparison of HHMI and NIH Schemes

	Howard Hughes Medical Institute (HHMI) research fellowship	National Institutes of Health (NIH) R01 Research Project Grant Program
Research funding period	7 years	3-5 years
Funding subjects	Funding is provided to individual scientists and not toward projects. Research contents may be adjusted based on the progress of the research.	Funding projects with clearly defined deliverables, not individual scientists.
Review upon renewal of research funding period	In the first review, failure is tolerated and the focus is placed on whether the researcher is engaged in challenging research work.	From the first review, the project is evaluated on whether research results have been produced.
Transition period	Even if the grant is not renewed in later years, funding is not suspended immediately. Two-year phase-down upon non-renewal.	Funds dry up upon non-renewal.
Main recipients	Has produced 33 Nobel Prize winners out of 918 recipients (approx. 3.6%). Japanese recipients include Susumu Tonegawa (recipient of the 1987 Nobel Prize for Physiology or Medicine), etc.	Has produced 168 Nobel Prize winners out of approx. 300,000 recipients across the whole NIH (approx. 0.06%)

Note: Information added/updated with reference to the HHMI website, based on Azoulay et al. (2011).

Source: Pierre Azoulay and Joshua S. Graff Zivin & Gustavo Manso, 2011. "Incentives and creativity: evidence from the academic life sciences," RAND Journal of Economics, vol. 42(3), pages 527-554, 09., and HHMI website.

Effects of Implementing Selection Programs at Early Stage

- It has been demonstrated that young people selected by NIH for its Associate Training Program (a program that selects young university graduates) are likely to make significant achievements in later years, such as receiving the Nobel Prize (studies conducted by MIT economists).
- Possible reasons for this includes guidance from excellent researchers during and after the program, interpersonal exchanges between those selected for the program, strengthening of the independence of research through funding, as well as the signaling effect, among others.
- In Japan, too, there is the possibility of expanding selection and support programs for very young researchers, such as at the point of their graduation from university.

NIH Associate Training Program

- Introduced in 1953. Provides a space for graduates of medical schools to study research methods for two to three years under outstanding researchers.
- As it allows those in the program to obtain research funding, it enables independent research without being subjected to the need to raise funds.

Differences between young people selected, and not selected, for the NIH Associate Training Program

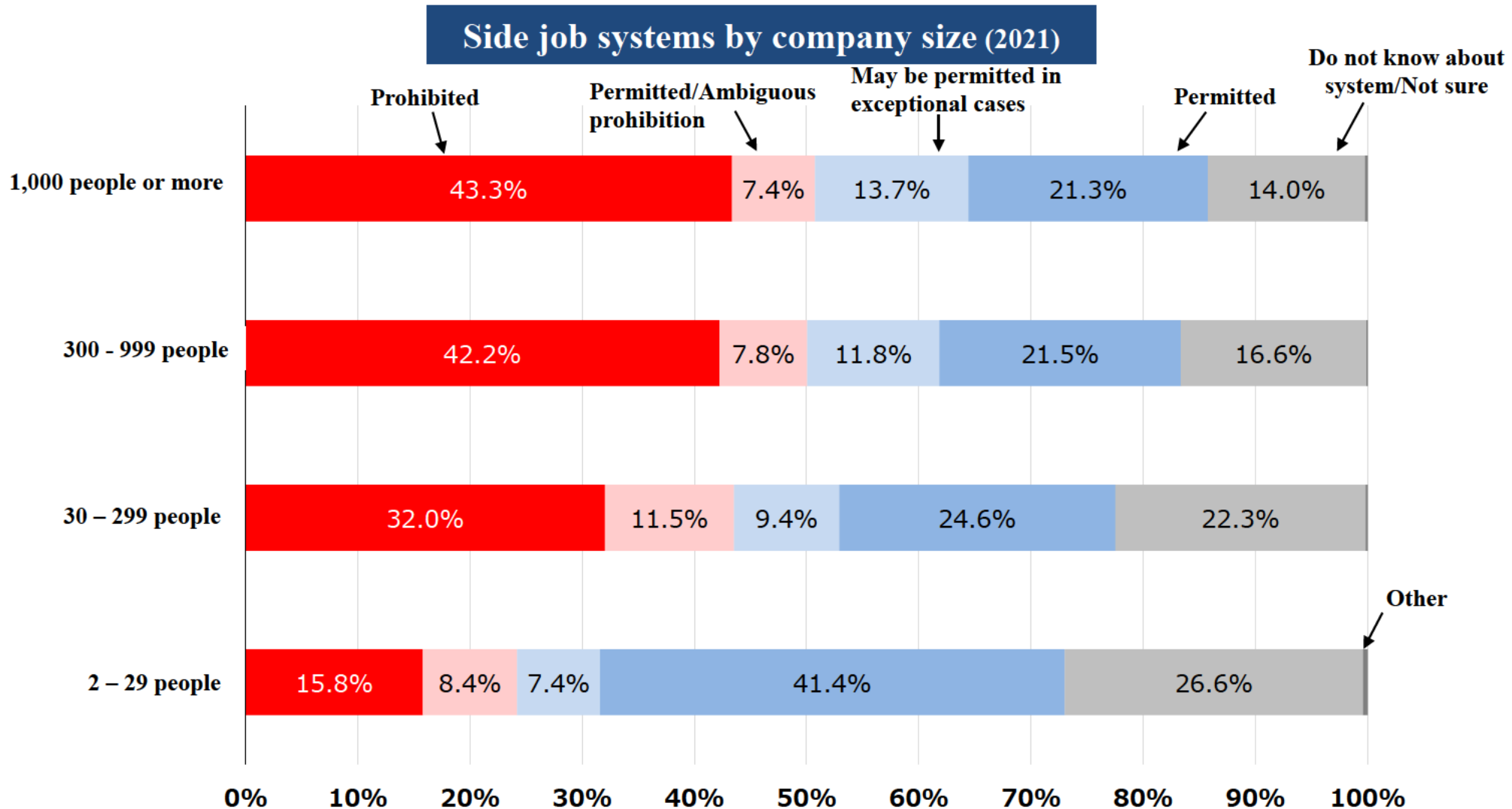
	Nobel Prize recipient	Selected for HHMI research program	Selected as member of U.S. academies of science/medicine	Recipient of NIH MERIT Award
Attendees	7 (0.36%)	89 (4.62%)	32 (1.66%)	79 (4.10%)
Non-attendees not selected for the program	0 (0.00%)	15 (1.22%)	0 (0.00%)	14 (1.18%)

Note: Comparison of 1,929 program attendees and 1,146 non-attendees who were not selected in the final round despite passing the initial admissions screening, from among 3,075 applicants who applied for the program between 1965-75.

Source: Prepared based on Azoulay, Pierre & Greenblatt, Wesley H. & Heggeness, Misty L., 2021. "Long-term effects from early exposure to research: Evidence from the NIH "Yellow Berets"," Research Policy, Elsevier, vol. 50(9).

Side Job Systems by Company Size

○ According to a survey conducted on employers, a higher percentage of larger companies prohibited employees from taking on side jobs.



Note: Responses by 5,993 employers of regular/non-regular workers, excluding companies employing one person (sole proprietor).

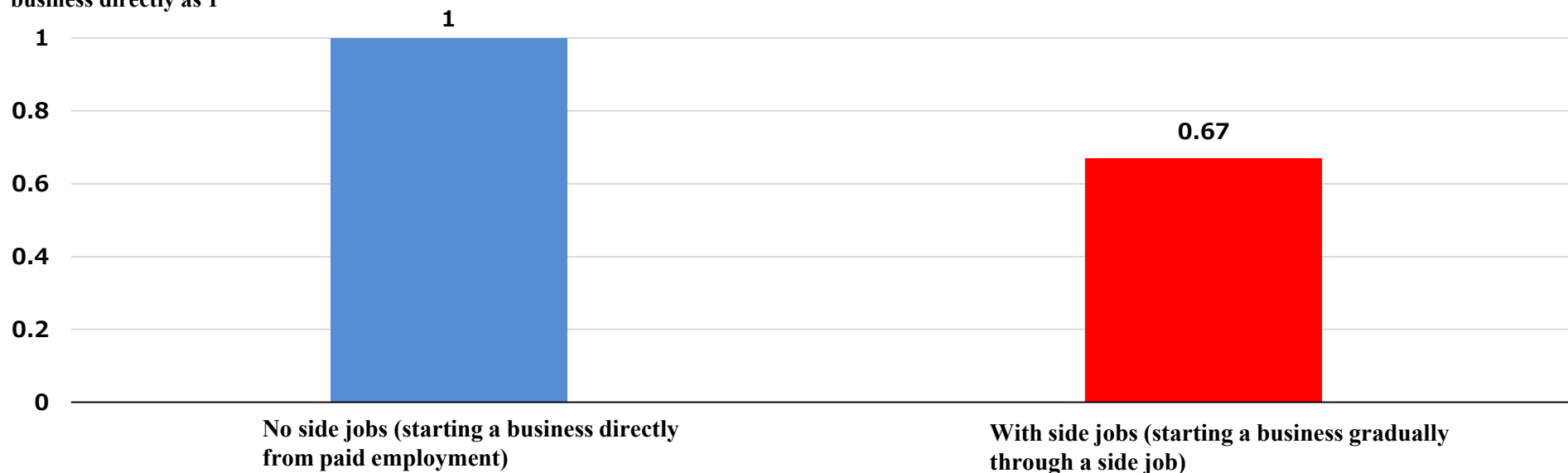
Source: Prepared based on Cabinet Office, "Fourth Survey on Changes in Daily Life Awareness and Behavior under the Impact of the Novel Coronavirus Disease" (conducted in September - October 2021).

Decreased Rate of Business Exit Through Gradually Starting a Business via a Side Job

- According to a study by business scholars, side jobs allow people to try out new things and also contribute to the building up of skills. In a comparison of those who started a business directly from paid employment with those who started a business gradually through a side job, taking the probability of business exit in the case of direct entrepreneurship as 100, the probability of business exit when starting a business gradually through a side job fell to 67%.
- This is because starting a business through a side job makes it possible for a person to learn about the feasibility of their business idea, and also allows them to learn entrepreneur skills through practical work.

Likelihood of business exit when starting a business directly from paid employment, and starting a business through a side job

Ratio based on probability of business exit when starting a business directly as 1



Note: Based on data from the National Longitudinal Survey of Youth, 1979 cohort (NLSY79). NLSY79 is a survey conducted by the Center for Human Resource Research at the Ohio State University with support from the U.S. Bureau of Labor Statistics. The survey is conducted on 12,686 men and women who were 14 to 22 years old at the time of the first survey in 1979. With the exclusion of non-respondents and employees working fewer than 30 hours per week, 2,198 people who became newly self-employed from 1994 to 2008 were the subjects of this analysis.

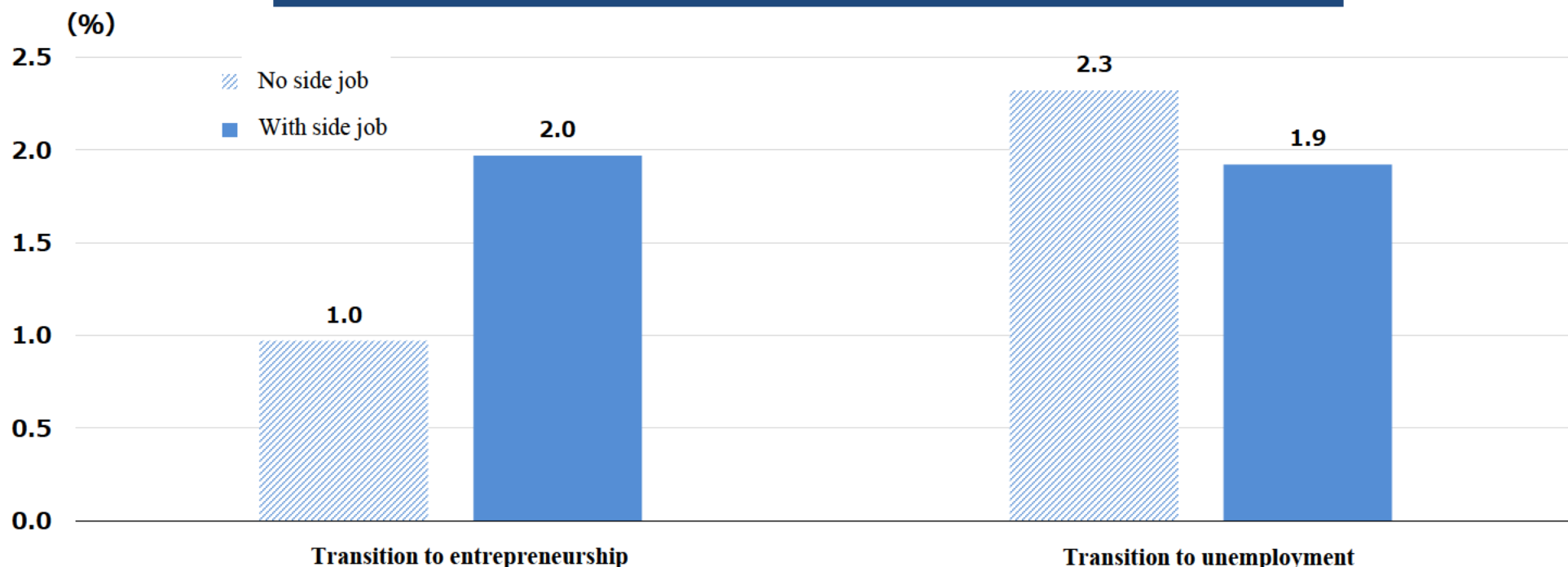
The estimation method was to analyze how the probability that full-time entrepreneurs (self-employment) fail to survive in full-time self-employment jobs changes over time. Individual attributes such as gender, age, education, family net income, firm size, pay, number of prior jobs, industry tenure, etc. were added to the explanatory variables, and their impact was controlled.

Source: Joseph Raffiee & Jie Feng, 2014. "Should I quit my day job?: A hybrid path to entrepreneurship", Academy of Management Journal

Effect of Side Jobs on Career Choice

○ According to a study by economists, for workers who take on side jobs, the probability of becoming entrepreneurs later increases from 1% to 2%, while the probability of unemployment falls from 2.3% to 1.9%.

Impact of engagement in side job on probability of transition to entrepreneurship and unemployment



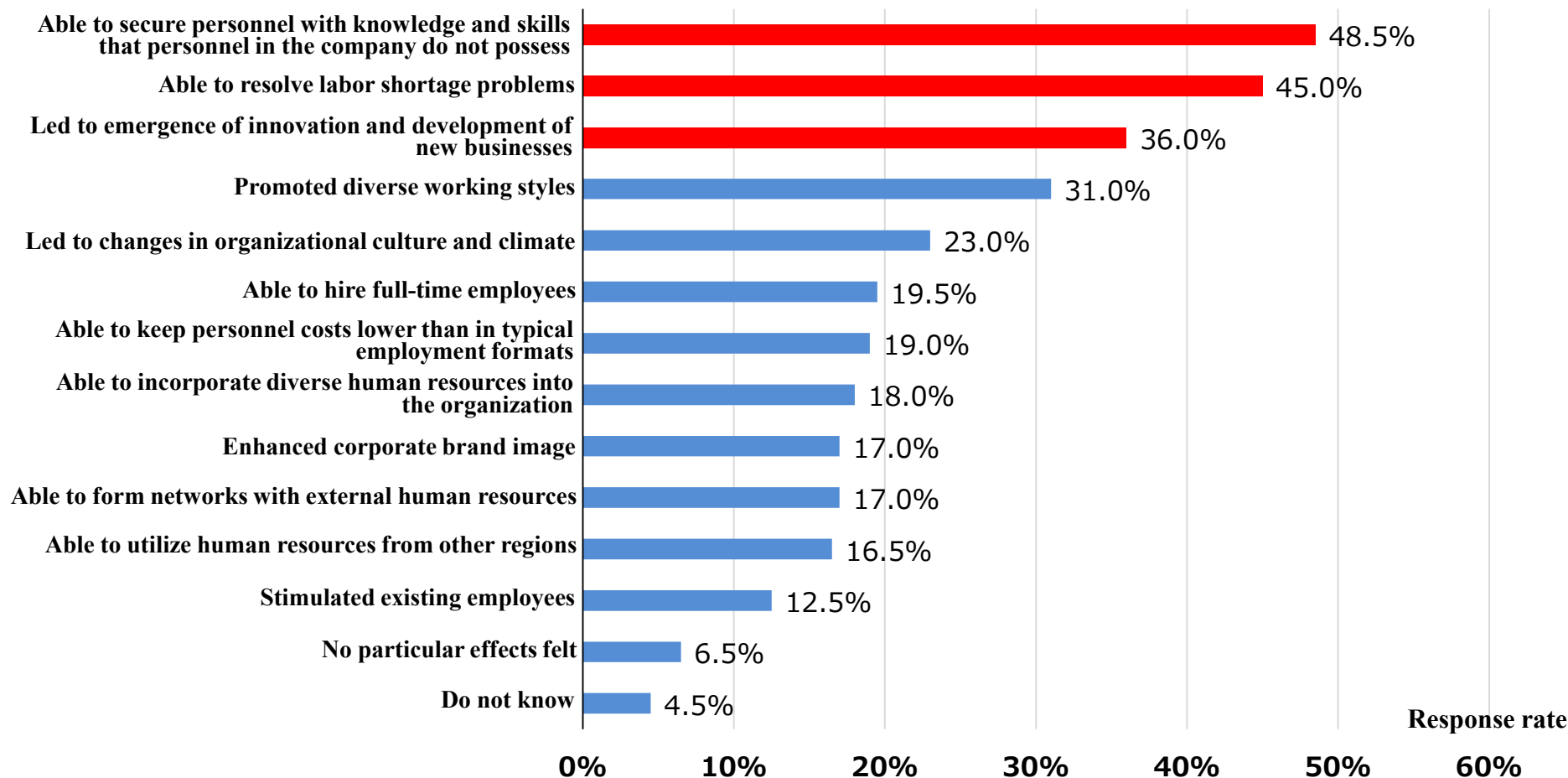
Note: Estimated using data from the British Household Panel Survey from 1991 to 2005. Estimated through random-effects probit models that takes the dummy variable of the presence/absence of side jobs as the explanatory variable, and the dummy variables of presence/absence of transition to entrepreneurship (self-employment) and presence/absence of transition to unemployment as the respective dependent variables. Male employees aged 18 - 60 were the subject of the estimate, and the sample sizes for the estimation methods with presence/absence of transition to entrepreneurship as the dependent variable and presence/absence of transition to unemployment as the dependent variable were respectively 22,268 people and 22,501 people. Individual attributes such as job satisfaction, earnings, occupational experience, weekly hours of work, number of children, employment status of spouse, education, occupation, and industry were added to the explanatory variables, and the impact of these were controlled.

Source: Panos, G.A., Pouliakas, K., and Zangelidis, A. (2014) "Multiple Job Holding, Skill Diversification, and Mobility," *Industrial Relations* 53, pp. 223-272

Effects of Accepting Side Job and Multiple Job Human Resources

- Companies that accept personnel holding multiple jobs/side jobs experienced effects such as success in securing human resources that the company does not possess (49%), success in resolving labor shortage problems (45%), and the emergence of innovation and development of new businesses (36%).

Effects of accepting external personnel with side jobs/multiple jobs (2020, multiple answers)



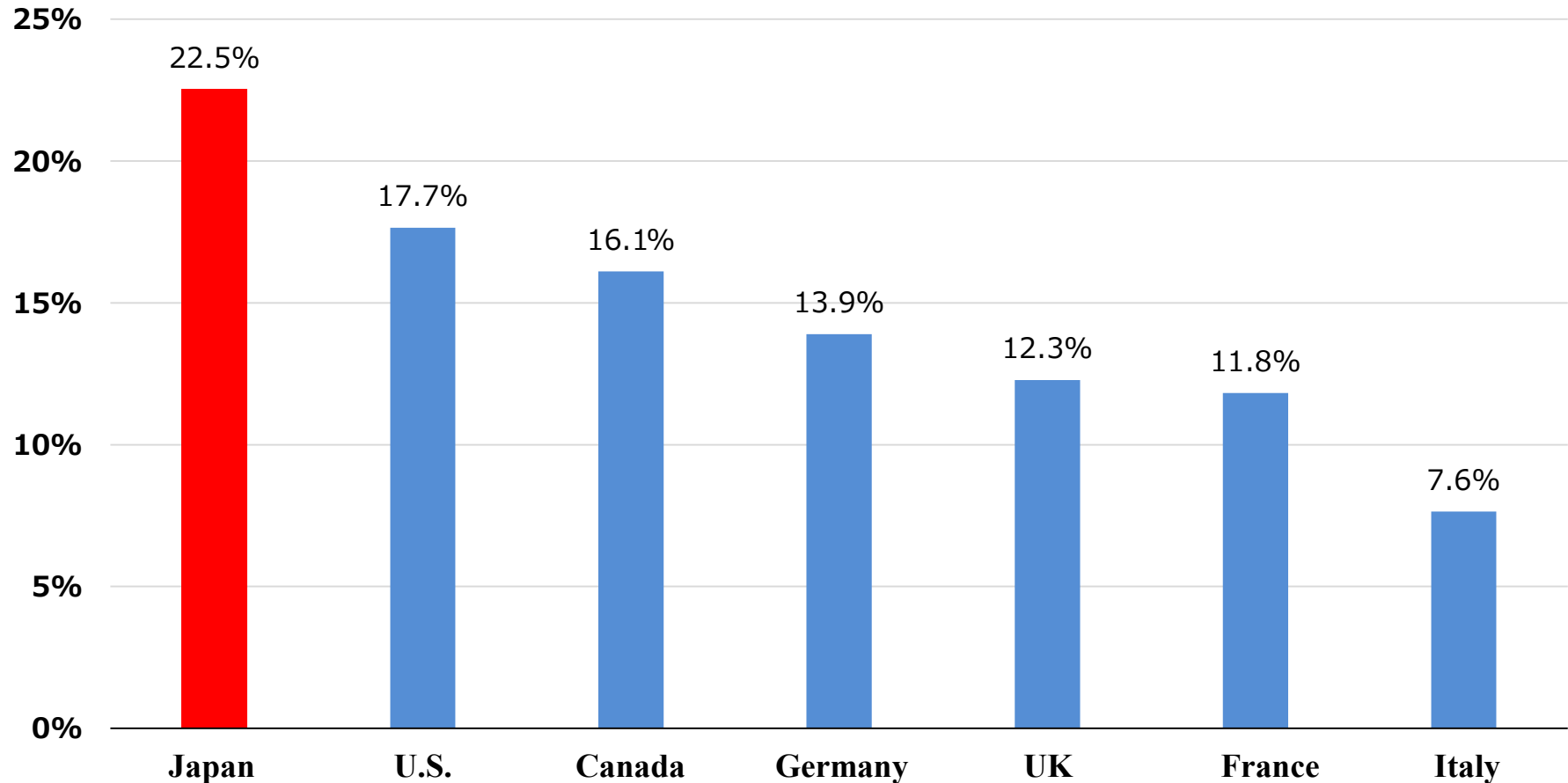
Note: Responses from HR officers (200 people) who answered that the company is accepting external personnel who hold multiple jobs/side jobs. Multiple answers were accepted.
 Source: Prepared based on Recruit's "2020 Collection of Survey Data of Trends on Multiple Jobs and Side Jobs" (survey conducted in December 2020).

International Comparison of the Gender Wage Gap

○ The gender wage gap of full-time workers in Japan (regular and non-regular employment) is large compared to other developed economies.

Gender wage gap (The ratio of median female wage lower than median male wage)

International comparison of the gender wage gap



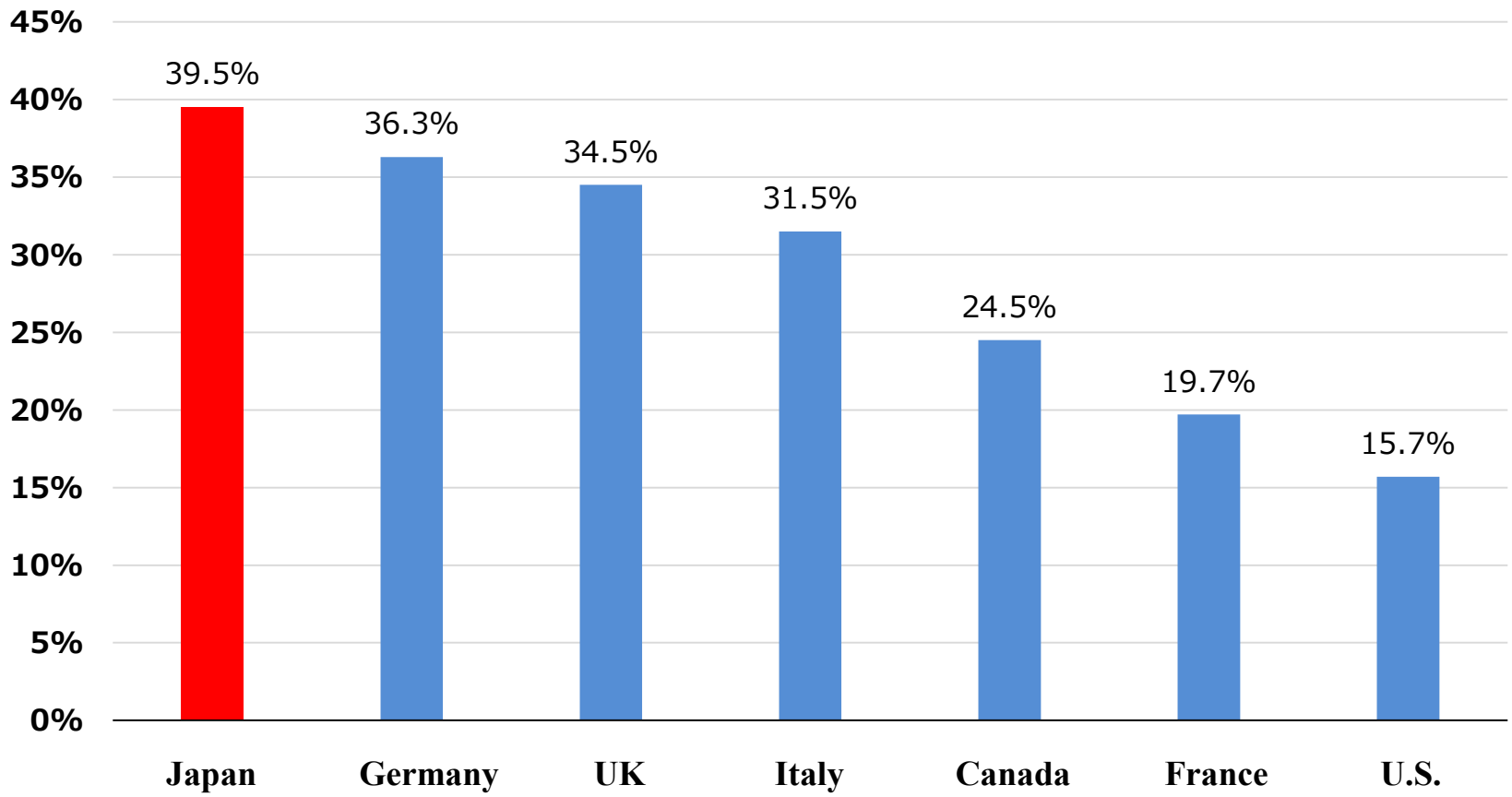
Note: The gender wage gap indicates how much lower the median female wage is compared to the median male wage. The comparison is for full-time workers in regular and non-regular employment. Values for Japan, U.S., Canada, and UK are for 2020, values for Germany and Italy are for 2019, and values for France are for 2018.

Source: Prepared based on OECD Stat.

International Comparison of Proportion of Women Working Part-Time

○ The proportion of women working part-time is 40% in Japan. This is a relatively high level compared to Europe and the U.S.

International comparison of proportion of women working part-time



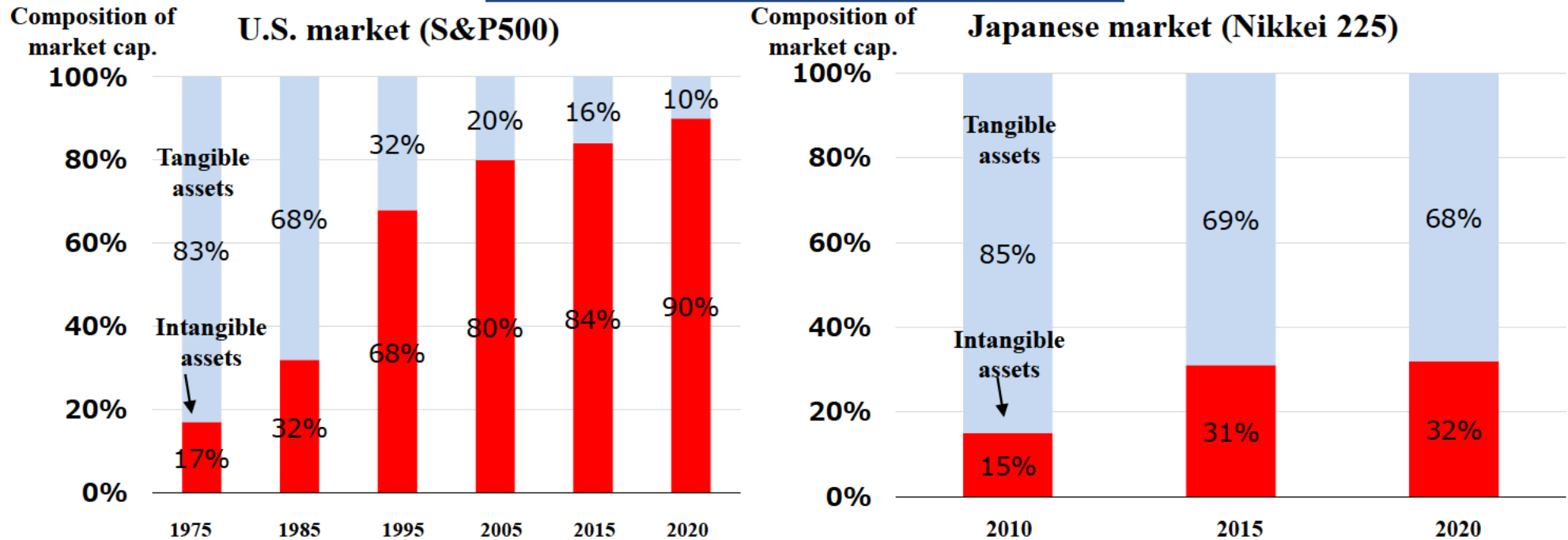
Note: Values for Germany are for 2019; values for all other countries are for 2020. "Part-time workers" is defined as workers who work for less than 30 hours per week in their primary job.

Source: Prepared based on OECD Stat.

Proportion of Intangible Assets in Total Market Capitalization

- In the U.S. market, intangible assets (such as the quantity and quality of human capital and intellectual property assets, business models, and expectations of future competitiveness) account for the majority of corporate valuation.
- the proportion of valuation in tangible assets remains high in the Japanese market, so the visualization of non-financial information such as human capital from companies to the stock market will be highly significant.

Proportion of intangible assets in total market capitalization



Note: Net intangible asset value is obtained by deducting net tangible asset value from market cap.

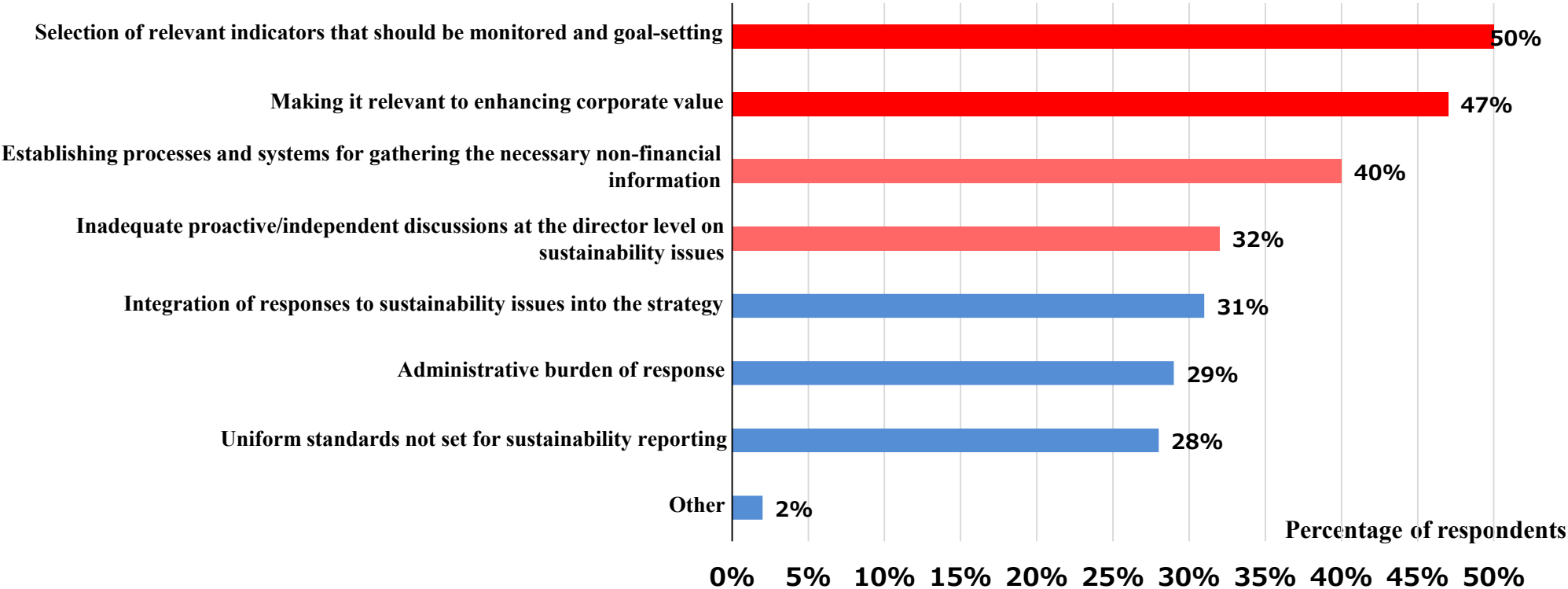
The proportion of intangible assets in the index is calculated by dividing that net intangible asset value by market cap.

Source: Prepared based on OCEAN TOMO, "INTANGIBLE ASSET MARKET VALUE STUDY," 2020.

Issues in Disclosure of Sustainability-Related Information

○ According to a questionnaire conducted on CFOs of listed companies in Japan, many companies responded as follows with regard to issues in disclosure of sustainability-related information: "selection of relevant indicators that should be monitored and goal-setting (50%)," "making it relevant to enhancing corporate value (47%)," "establishing processes and systems for gathering the necessary non-financial information (40%)," and "inadequate discussions at the director level (32%)."

In sustainability information reporting, issues with comprehensive disclosure that is relevant to financial information (Multiple answers)

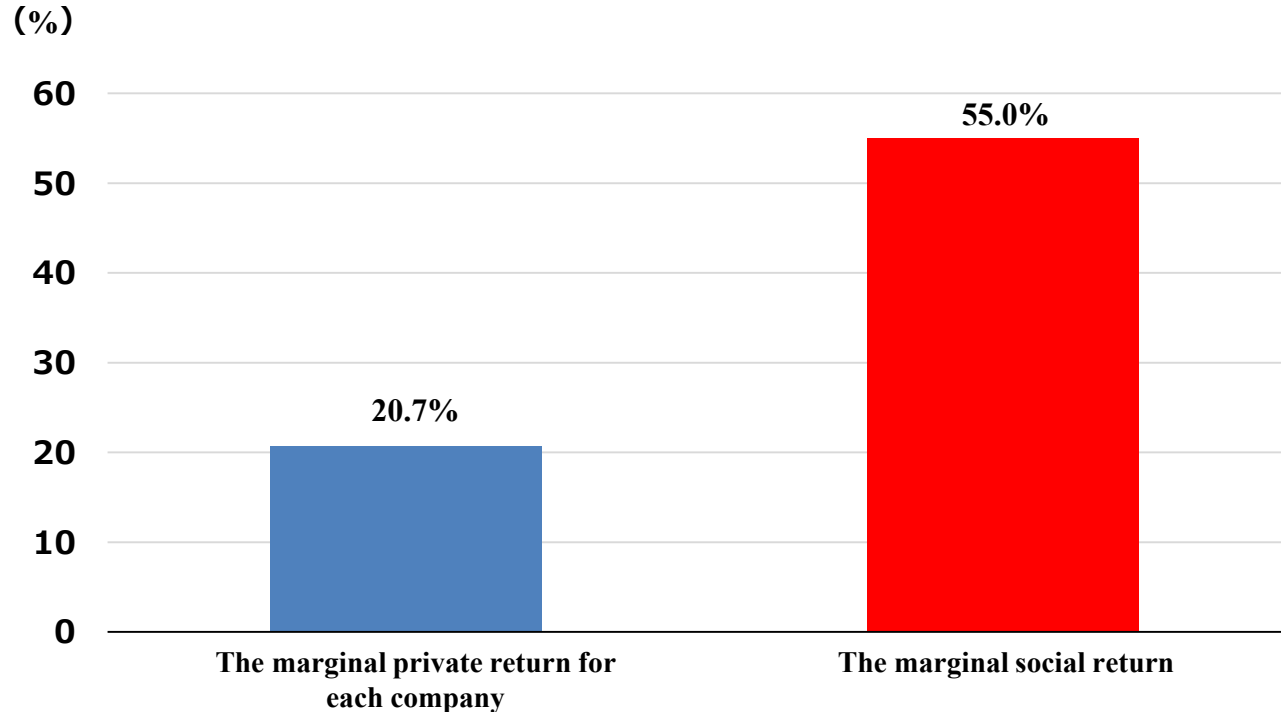


Note: Responses from 461 listed companies in Japan. Survey period was from September 1 to October 8, 2021.
Source: Prepared based on KPMG Japan, "CFO Survey 2021"

Size of Externalities in Research and Development

- According to a study by economists from MIT and Stanford, published in a reputable academic journal, a comparison of the increase in sales to a company (marginal private return) and the positive and negative externalities to other companies as a whole (marginal social return), brought about by the increase in research and development costs of individual companies, revealed that there are positive externalities, and that the social rate of return is estimated to be more than 2.5 times that of private rate of return.
- Therefore, there tends to be under-investment in research and development when it is left only to private companies, and it is important for both the public and private sectors to put effort into research and development.

The marginal private and social return through R&D investment



Note: A study on 715 U.S. companies that acquired patents since 1963. Estimated by adding the positive externalities (spillover effect) from R&D by a certain company to other companies, spread through technology, and the negative externalities (spillover effect) of losing the product market share to other companies.

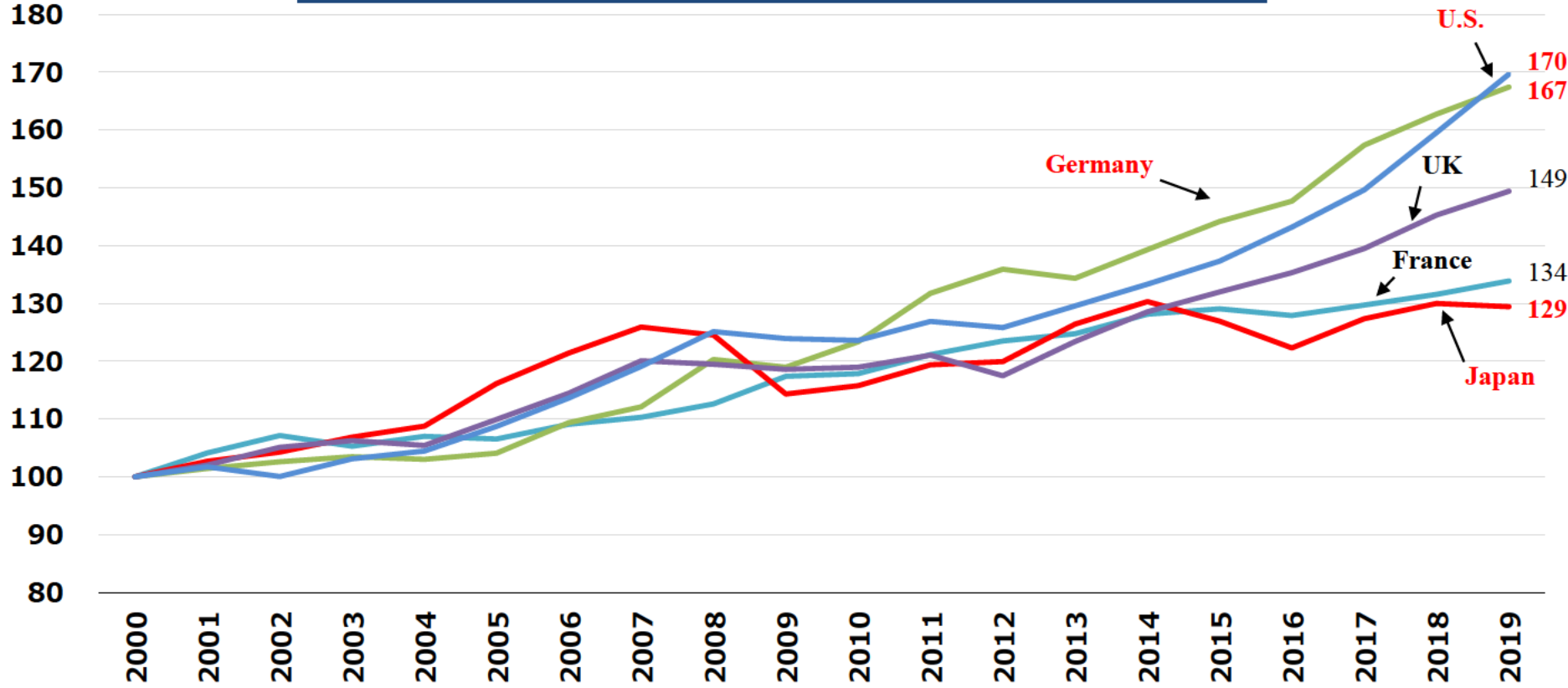
Source: Bloom, N., Schankerman, M. and Van Reenen, J. (2013), Identifying Technology Spillovers and Product Market Rivalry. *Econometrica*, 81: 1347-1393.

International Comparison of Total Public and Private Research and Development Investment Amounts

○ The total amount of private and public investment in research and development increased by 1.7 times for the U.S. and 1.67 times for Germany from 2000 to 2019, but increased only by 1.29 times for Japan over the same period.

International comparison of growth rate of total public and private R&D investment
(Real basis, 2000 = 100)

Public and private R&D costs (2000 = 100)



Note: 2015 U.S. dollar standard, purchasing power parity basis.
Source: Prepared based on OECD Stat.

Schumpeter's Two Theories About the Source of Innovation

- Economist Joseph Schumpeter led the way to the beginnings of systematic research on innovation. In his work on the source of innovation, he set out two seemingly contradictory views on the subject.
- The first view is that the source of innovation lies in start-ups that are new entrants to the market (known as “Schumpeter Mark I”).
- The second view is that the source of innovation lies in large companies that have a wealth of internal capital as well as platforms that are capable of capturing value (known as “Schumpeter Mark II”).

Schumpeter's two theories about the source of innovation

Schumpeter Mark I (*The Theory of Economic Development*, 1912)

- Innovation results from the introduction of new products by “heroic” **entrepreneurs** (actually *Unternehmergeist* –entrepreneur-spirit) competing for the market. While established firms reinforce existing structures, **entrepreneurs** are engaged actively in a disequilibrium phenomena.

Schumpeter Mark II (*Capitalism, Socialism and Democracy*, 1942)

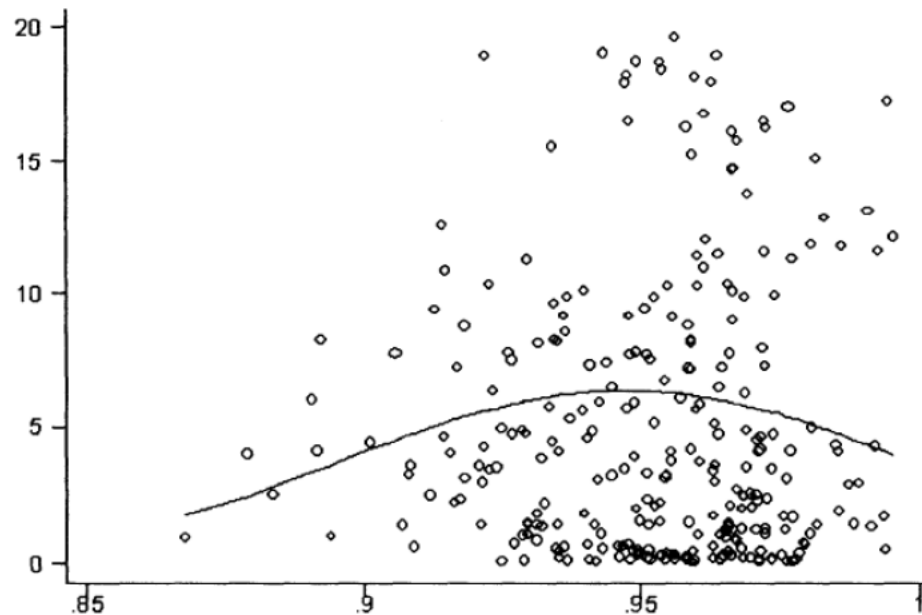
- Innovation results from the endogenous investment of financial resources, and there may be significant economies of scale in R&D. **Large firms** are likely be the best “platforms” to support R&D since they internal liquidity and are also most likely to be able to capture the value created by innovation.

Schumpeter's Two Theories and Evaluation Results

- According to an empirical study by economists from Harvard University and Stanford University on whether start-ups or large companies are the source of innovation, it is difficult to create innovation in a competitive market comprising only new companies (right), and also difficult to create innovation in a market monopolized by large companies (left). Their view is that market environments that are positioned right in between the two promote innovation. This shows that reality is a fusion of Mark I and Mark II.
- To promote innovation, both of the following are important: (1) Promote the establishment of start-ups; (2) Create an environment for existing large companies to engage in open innovation.

Relationship between degree of market competition and number of patents

Citation weighted patents



A measure of market competition (competition intensifies as we move to the right)

Note: A measure of competition on the horizontal axis is the ratio of corporate operating profits and sales (Lerner index), averaged by industry. The more intense the competition, the closer the selling price approaches marginal cost. Accordingly, operating profit becomes smaller, Lerner index becomes smaller, and a measure of market competition ($1 - \text{Lerner index}$) increases.

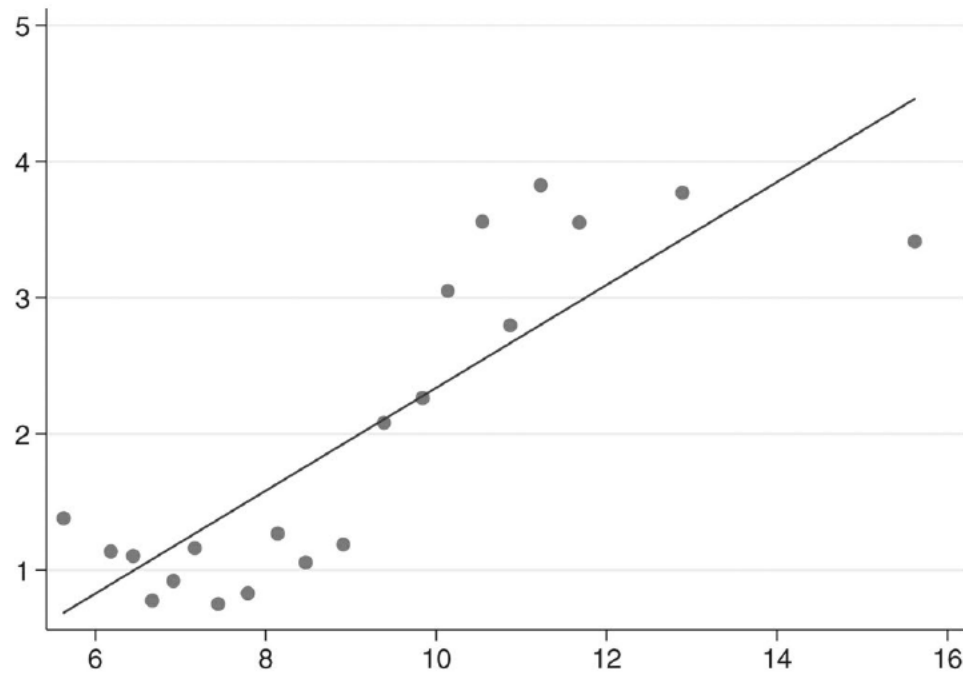
Source: Philippe Aghion, Nick Bloom, Richard Blundell, Rachel Griffith, Peter Howitt. 2005. "Competition and Innovation: an Inverted-U Relationship," *The Quarterly Journal of Economics*, Volume 120, Issue 2, May 2005, Pages 701–728

Relationship Between Firm Creation and Destruction and Per Capita Rate of Economic Growth

- The higher a country's average rate of firm creation and destruction (an index of creative destruction), the higher the per capita rate of economic growth.

Average rate of firm creation and destruction (index of creative destruction) and growth rate of GDP per capita

Growth rate of GDP per capita

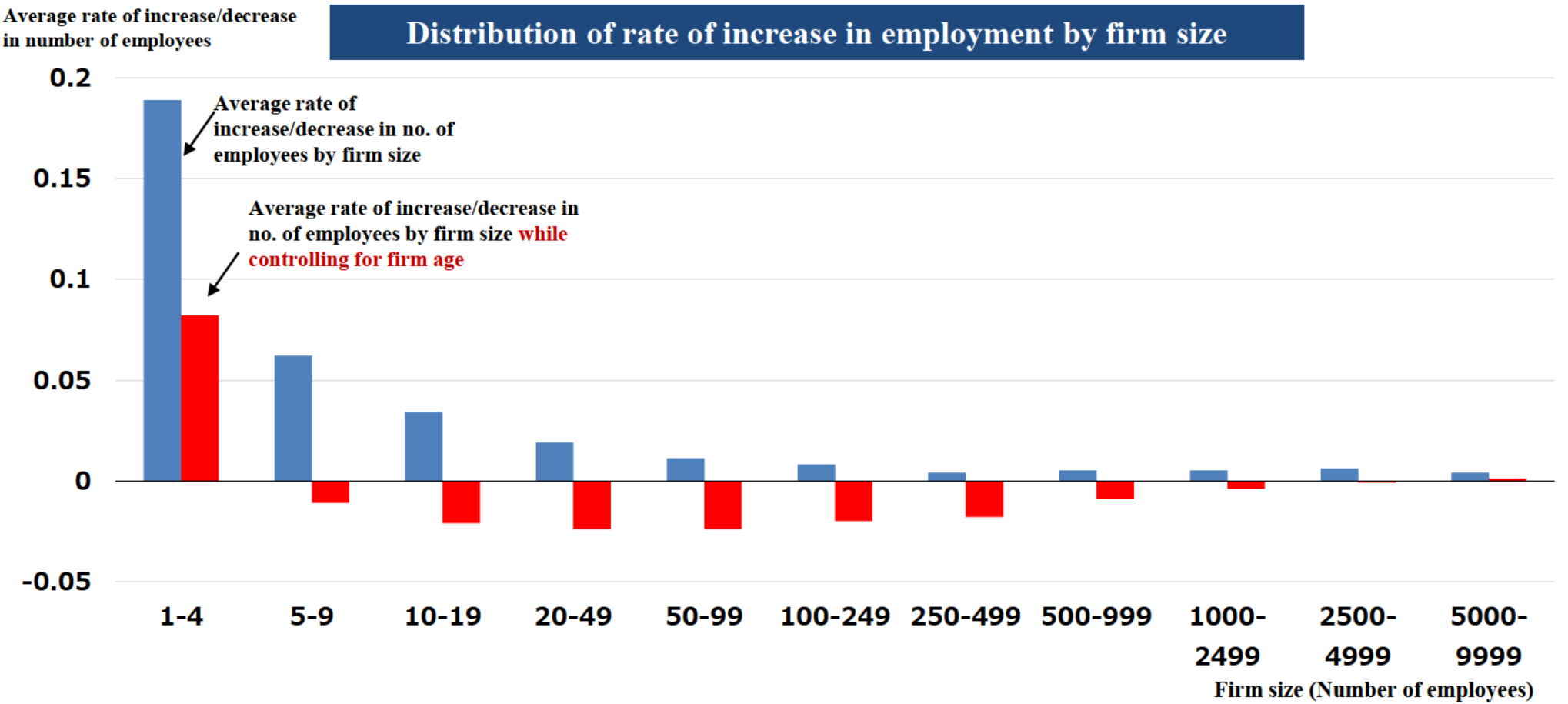


Note: The index of creative destruction is the average rate of firm creation and destruction. The countries examined in the study were Austria, Bulgaria, Czech Republic, Croatia, Denmark, Estonia, Finland, France, Hungary, Italy, Latvia, Lithuania, Poland, Portugal, Romania, Slovakia, Spain. 2012-2016.

Source: Philippe Aghion, Celine Antonin and Simon Bunel. 2021. The Power of Creative Destruction. Harvard University Press.

Relationship Between Firm Size and Added Value Creation

○ When the rate of increase in employment, which is one of the indicators of new value creation, is broken down simply by firm size, the rate of increase in employment appears to be higher for small firms than for large firms (blue). On the other hand, when controlling for the impact from the age of the firm, the correlation between firm size and rate of increase in employment is largely eliminated (red). In other words, how young a firm is, is important in relation to the creation of value.



Note: Study conducted on U.S. companies from 1976 - 2005. The average rate of increase/decrease in the number of employees was broken down into (1) factors dependent on corporate size and (2) factors dependent on corporate age, and regression analysis was carried out for (1) and (2) respectively to obtain the results. The average rate of increase/decrease in the number of employees is obtained by deducting the number of employees from the sum of the increase in employment numbers and absolute value of decrease in employment.

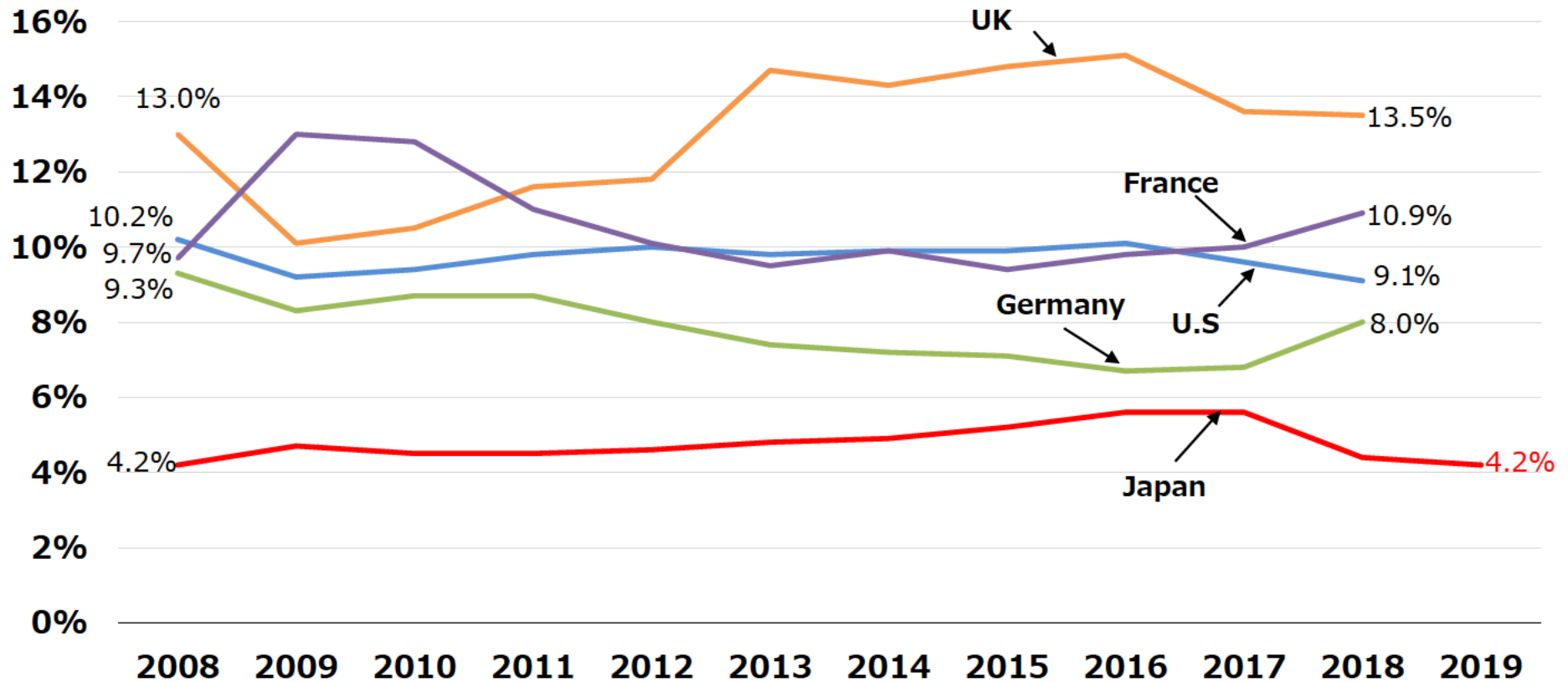
Source: John Haltiwanger, Ron S. Jarmin, Javier Miranda. 2013. "Who Creates Jobs? Small versus Large versus Young." *The Review of Economics and Statistics* 2013; 95 (2): 347-361.

Trends in Corporate Entry Rates

○ Japan's corporate entry rate has remained at a low level compared to the U.S. and major European countries, registering at 4.2% in 2019.

Trends in corporate entry rates

Corporate entry rate



Note: Corporate entry rate = No. of businesses that have established new employment relationships in the fiscal year in question/Number of businesses covered by employment insurance at the end of the previous fiscal year

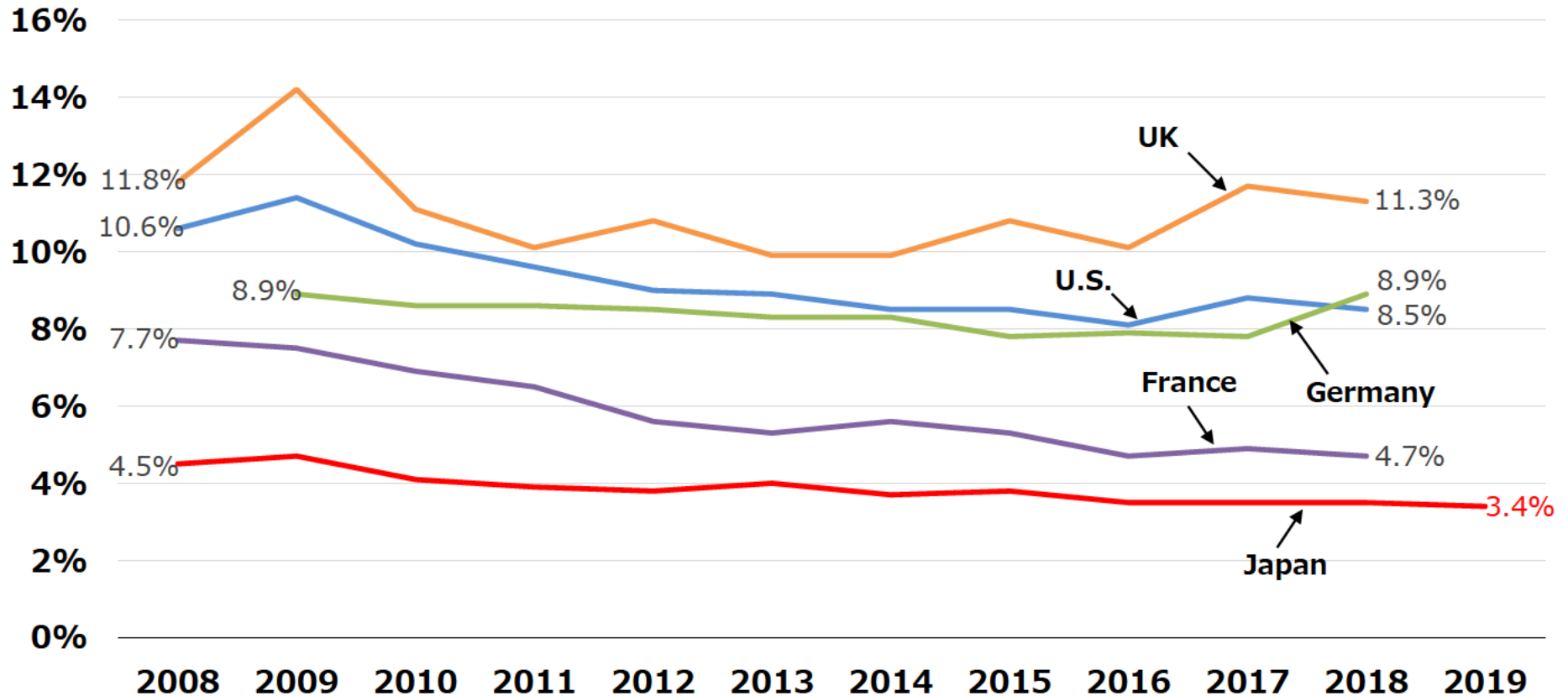
Source: The Small and Medium Enterprise Agency, 2021 White Paper on Small and Medium Enterprises in Japan.

Trends in Corporate Exit Rates

○ Japan's corporate exit rate has remained at a low level compared to the U.S. and major European countries, registering at 3.4% in 2019.

Trends in corporate exit rates

Corporate exit rate



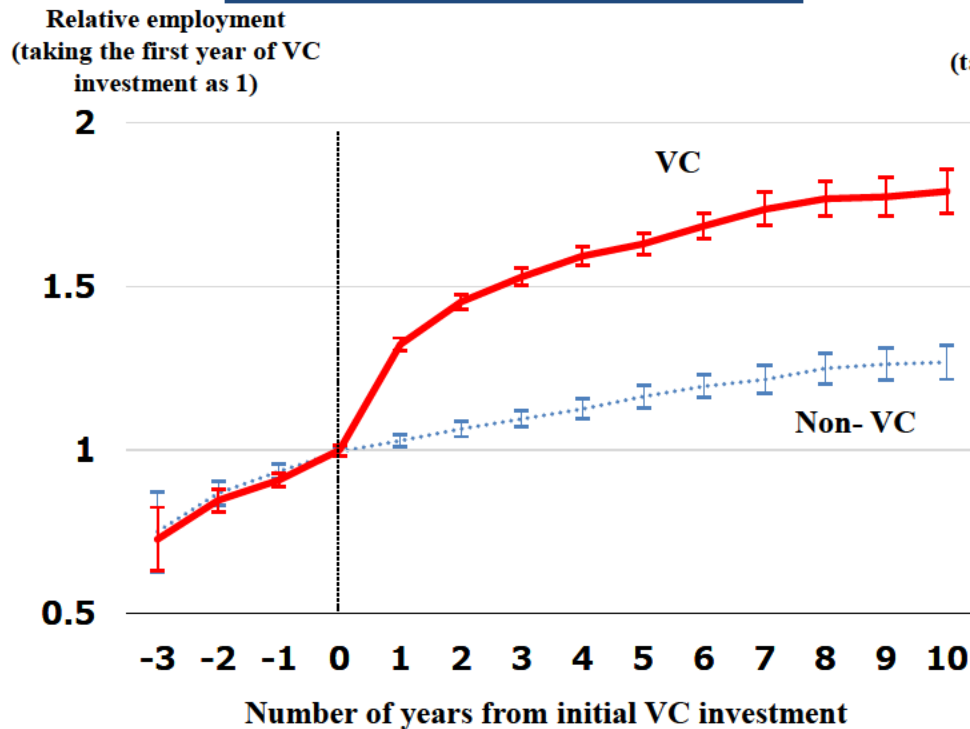
Note: Corporate exit rate = No. of businesses that have annulled employment relationships in the fiscal year in question/Number of businesses covered by employment insurance at the end of the previous fiscal year

Source: The Small and Medium Enterprise Agency, 2021 White Paper on Small and Medium Enterprises in Japan.

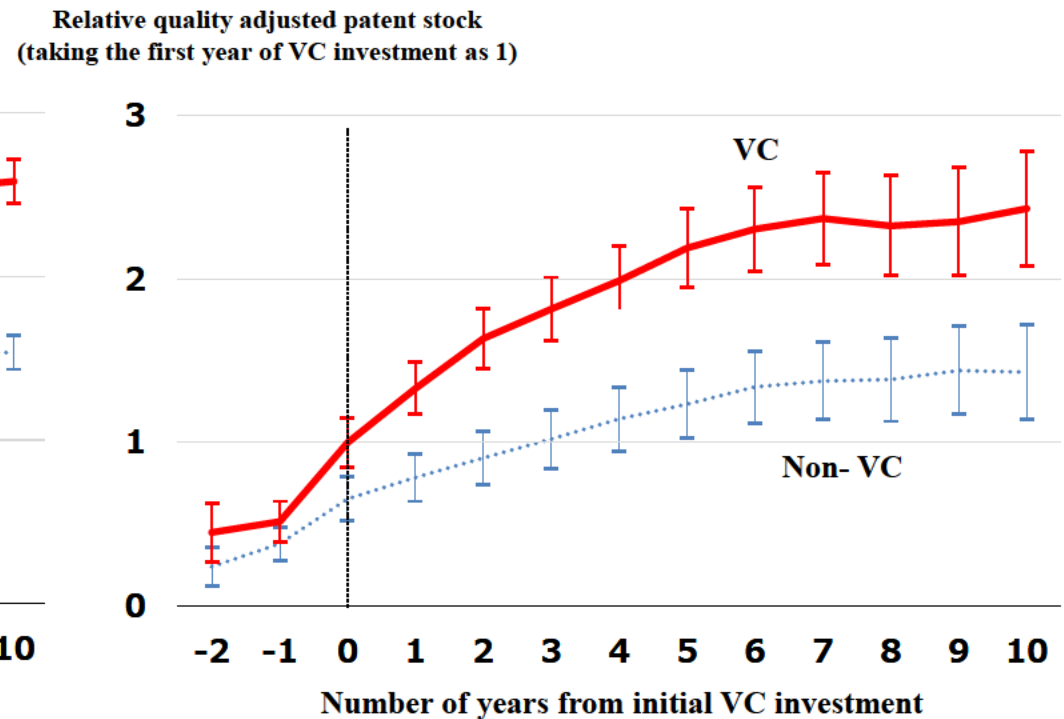
Venture Capital Investment and Employment/Innovation

○ According to a study conducted by University of Chicago economist, companies that have received venture capital investment are more proactive in expanding employment and innovation in comparison with companies that have not received such investment. It has been empirically proven that venture capitals have the ability to evaluate growing companies in a meaningful way, as well as the ability to nurture them.

VC investment and employment growth



VC investment and innovation (Patents)



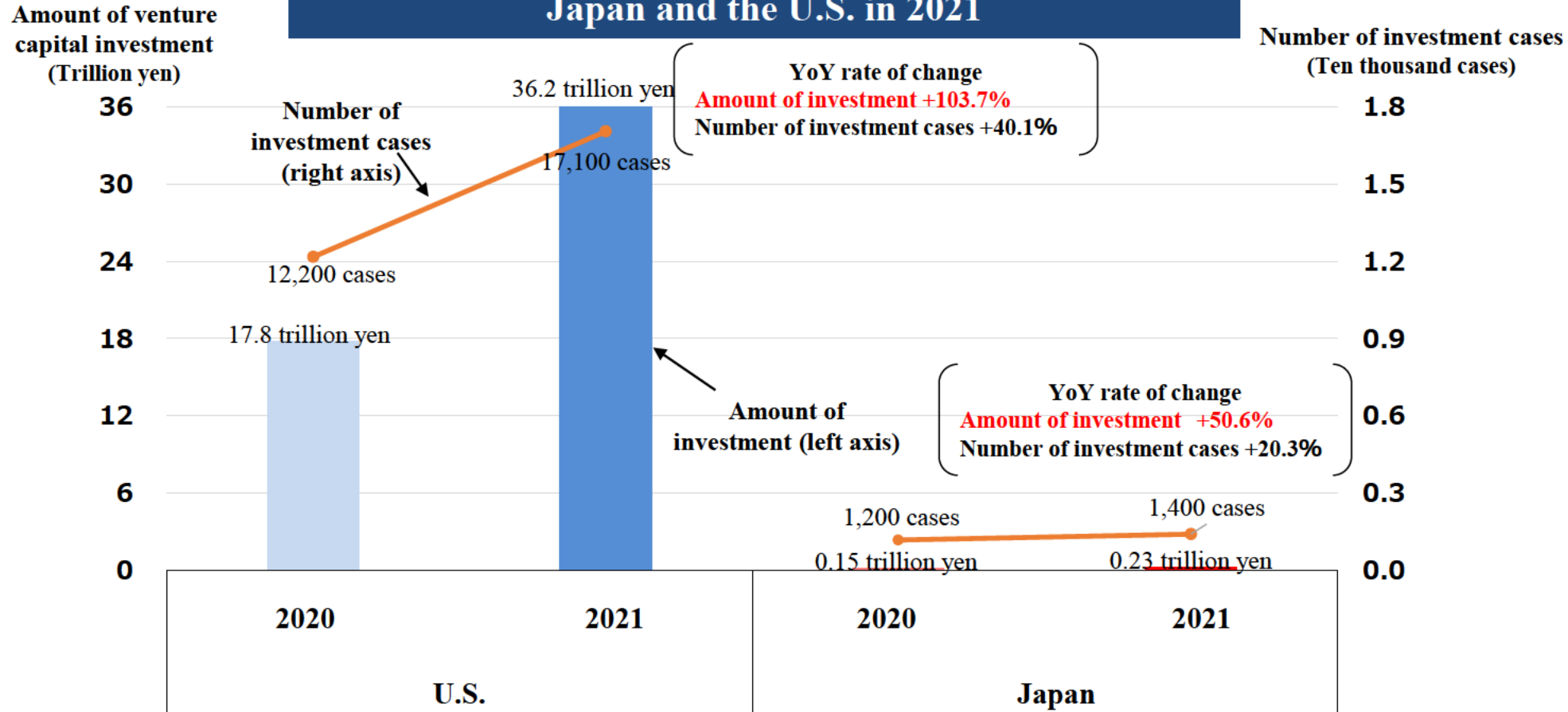
Note: Based on the U.S. Census Bureau's Longitudinal Business Database. Based on Thomson Reuters' VentureXpert Database with regard to companies securing financing from VC. Changes in the rate of increase in employment and innovation (rate of increase in patent stock) before and after the initial financing through venture capital. Comparison of companies that received VC investment (13,000 companies) and companies that did not receive VC investment from 1980 to 2012. With regard to patents, comparison of about 2,500 companies that received VC investment and about 5,00 companies that did not receive VC investment. With regard to companies that did not receive VC investment, analysis was carried out by selecting companies with similar characteristics as the companies that received VC investment.

Source: Ufuk Akcigit, Emin Dinlersoz, Jeremy Greenwood, Veronika Penciakova. 2019. "Synergizing Ventures," NBER Working Papers 26196, National Bureau of Economic Research, Inc.

Comparison of Venture Capital Investment in Japan and the U.S.

- With regard to the amount of venture capital investment in 2021, the amount of investment and number of cases remains small in Japan.
- Moreover, while the amount of investment has increased by 1.5 times for Japan, it has doubled for the U.S.

Comparison of domestic venture capital investment in Japan and the U.S. in 2021



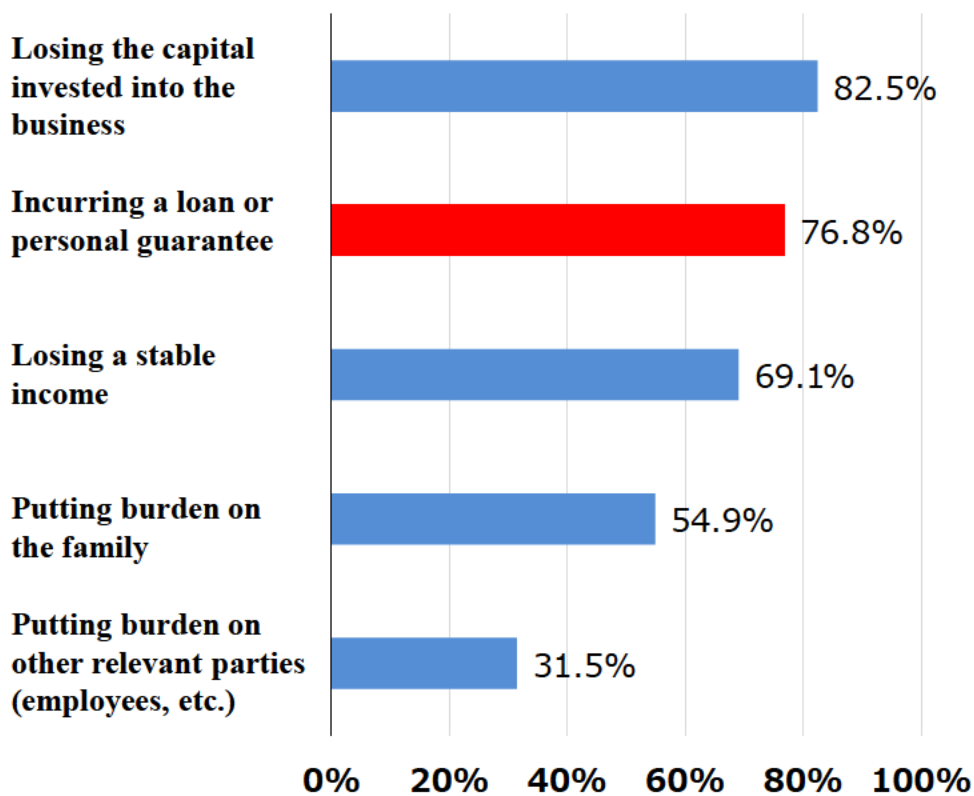
Note: For U.S. values, the dollar was converted to yen based on the average exchange rates in 2020 and 2021 (USD1 = 106.73 yen (2020), 109.89 yen (2021)).

Source: Prepared based on Venture Enterprise Center, "Survey of Investment Trends in the Last Quarter, Q4 2021 (October.- December)" (Published on March 4, 2022), and NVCA PitchBook, "The Q4 2021 PitchBook-NVCA Venture Monitor" (Published on January 13, 2022)

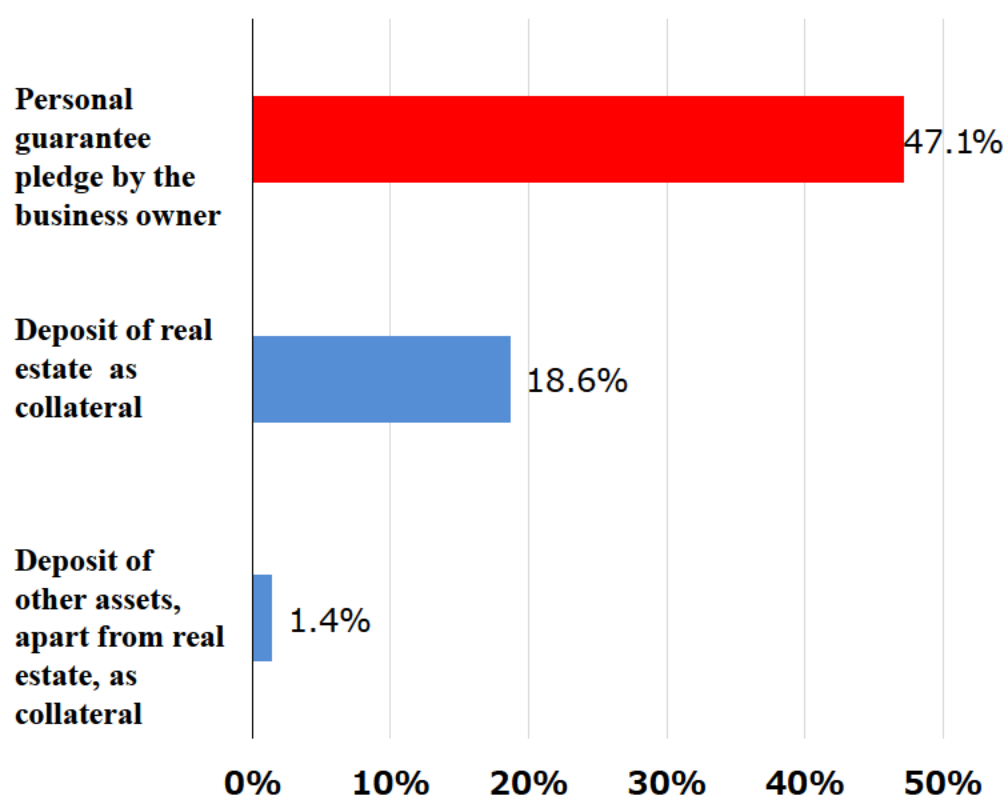
Risks When Starting a Business, and Conditions for Borrowing from Financial Institutions

- 77% of those interested in starting a business cited “incurring a loan or personal guarantee” as the key risk brought about by business failure.
- When starting a business, 47% of business owners are required to pledge personal guarantees when taking a loan from a private financial institution, including loans with credit guarantees.

Risks brought about by business failure cited by those interested in starting a business



Characteristics of loans for starting a business taken from private financial institutions



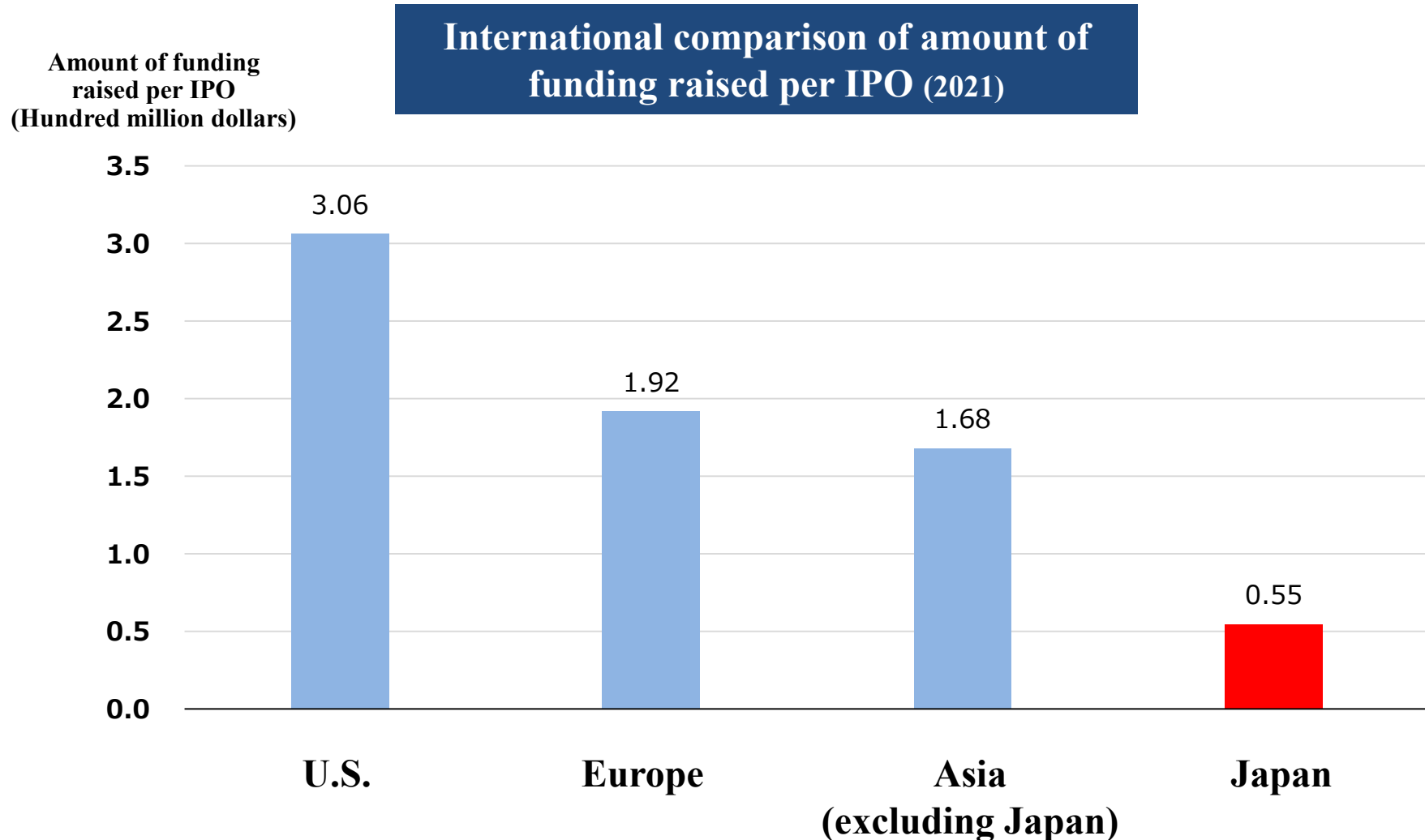
Note: Left: Results of questionnaire conducted in September 2019 on males and females aged 18 to 69 across Japan (252 respondents). Results of answers to the question on the risks brought about by business failure. Multiple answers accepted.

Right: Results of questionnaire conducted in June - July 2018 on newly founded/established companies across Japan (210 respondents). Results of answers to the question on applicable loans obtained. Multiple answers accepted.

Source: Prepared based on Japan Finance Corporation, "FY2019 Survey on Entrepreneurship and Entrepreneurship Mindset;" Hirofumi Uchida, Charee Kwak, Takashi Hatakeda, Yuji Honjo, Nobuyoshi Yamori, "Summary of the Survey on Startup Finance in Japan" (2018).

International Comparison of Amount of Funding Raised Per IPO

○ The amount of funding raised per IPO is 300 million dollars in the U.S. and 200 million dollars in Europe, but only 60 million dollars in Japan.



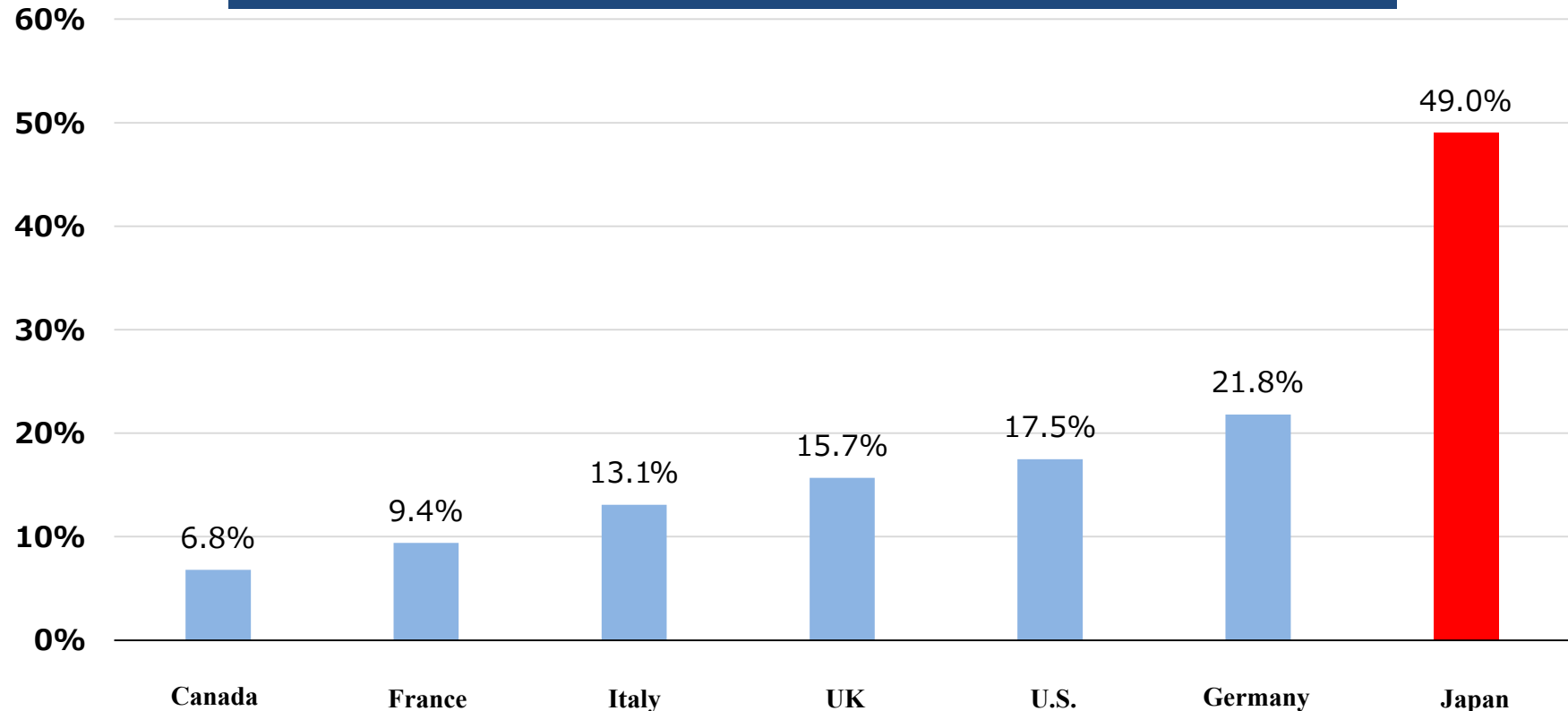
Note: Aggregated by the countries where listed companies are located (including listing on SPAC).
Source: Prepared based on Dealogic data.

International Comparison of Opening Price Compared to Initial Price in IPO

○ The initial price (the stock price achieved on the first day of listing) in Japanese IPOs is significantly higher (+49%) than the opening price (the price at which the entrepreneur sells stocks at the time of listing). For this reason, the amount of funding raised by entrepreneurs through IPOs is relatively small.

How much initial price exceeds opening price

International comparison of how much initial price exceeds opening price in IPO

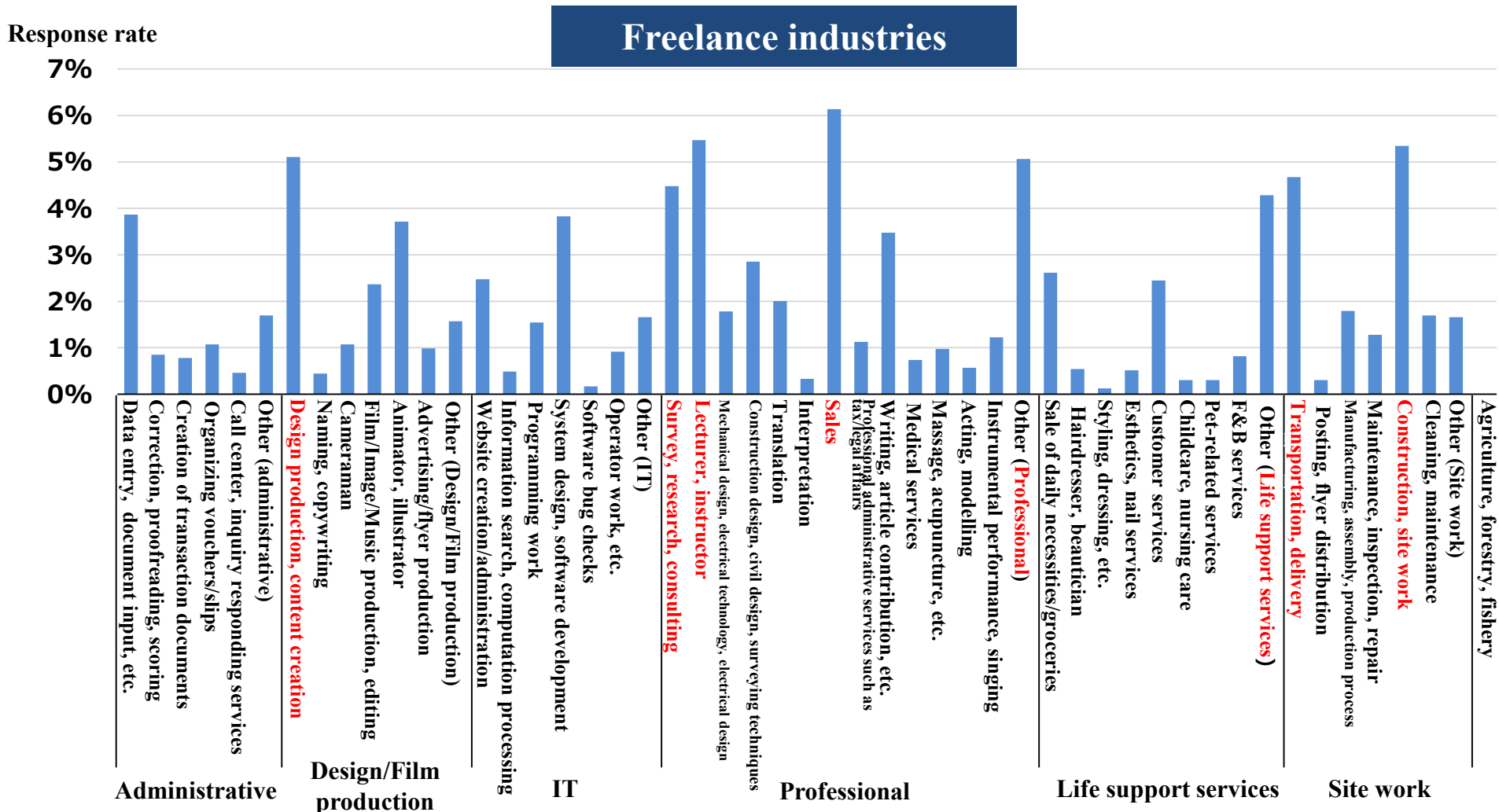


Note: Japan: 3,974 IPOs from 1970-2021, Canada: 811 IPOs from 1971-2021, France: 904 IPOs from 1983-2021, Italy: 413 IPOs from 1985-2018, UK: 5,309 IPOs from 1959-2020, U.S.: 13,718 IPOs from 1960-2021, Germany: 840 IPOs from 1978-2020. Values obtained by dividing initial price by opening price and deducting 1 (average rate of return on initial price)

Source: Prepared based on Tim Loughran, Jay R. Ritter, Kristian Rydqvist, "Initial Public Offerings: International Insights" (March 15, 2022)

State of Freelancing in Japan

- It is estimated that 4.62 million people in Japan are working as freelancers (2020, Cabinet Office).
- They are engaged as freelancers in a wide range of industries, including sales, lecturers/instructors, construction/site work, design/content creation, and delivery (2021).



Note: Freelancers are defined as "self-employed persons or sole proprietors who do not have a physical store nor employees, but who gain income by utilizing their own experience, knowledge, and skills (excluding agriculture, forestry, and fishery workers) "

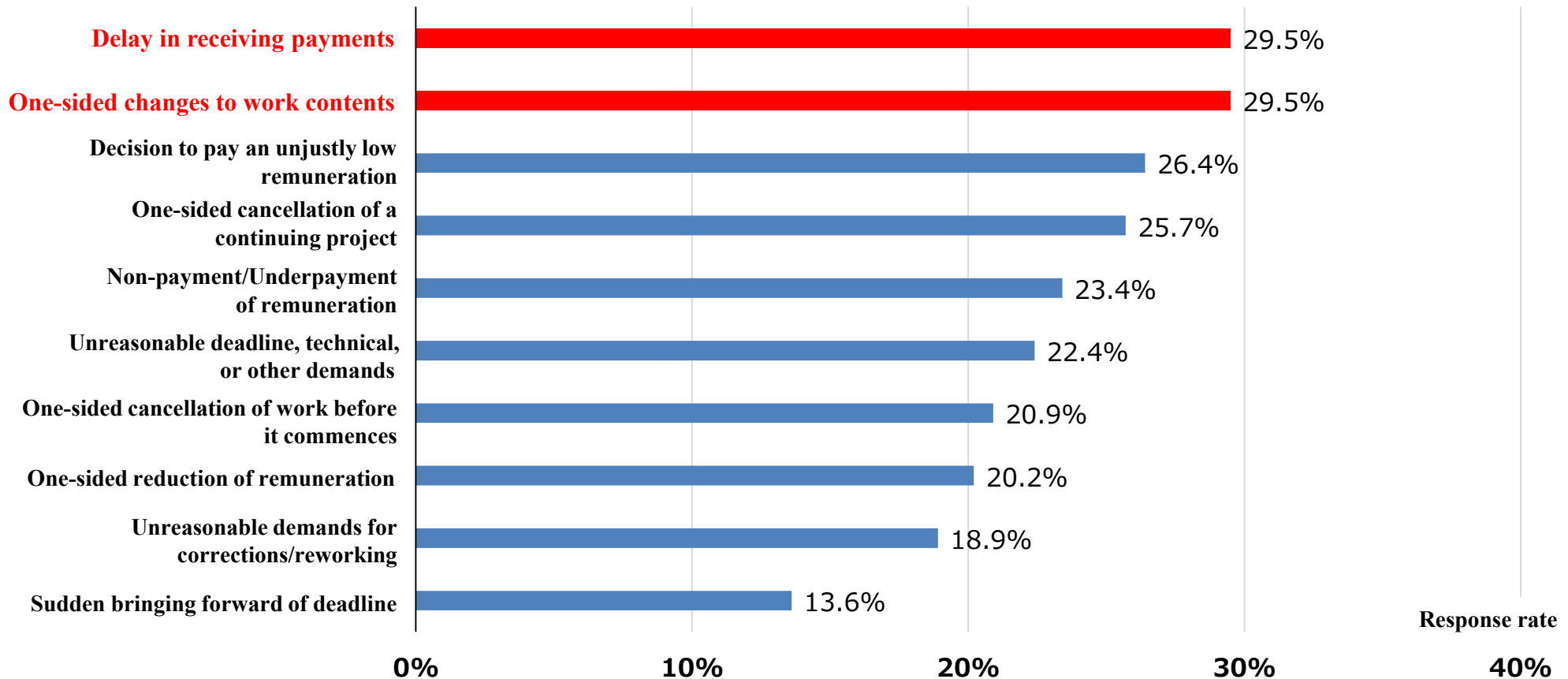
Tabulation of responses to the question "Please select the item that is closest to the specific content of our work " (Single answer) (Number of responses: 7,188)

Source: Prepared based on the questionnaire conducted on freelancers, implemented jointly by the Cabinet Office, Japan Fair Trade Commission, MHLW, and The Small and Medium Enterprise Agency from July 20 to August 20, 2021, Cabinet Office, "Results of Survey on the Current Situation of Freelancers"

Details of Trouble Encountered by Freelancers

- The problems most frequently encountered by freelancers are “delay in receiving payments” and “one-sided changes to work contents,” both of which scored highest at 29.5%.

Details of trouble encountered by freelancers (Top 10)



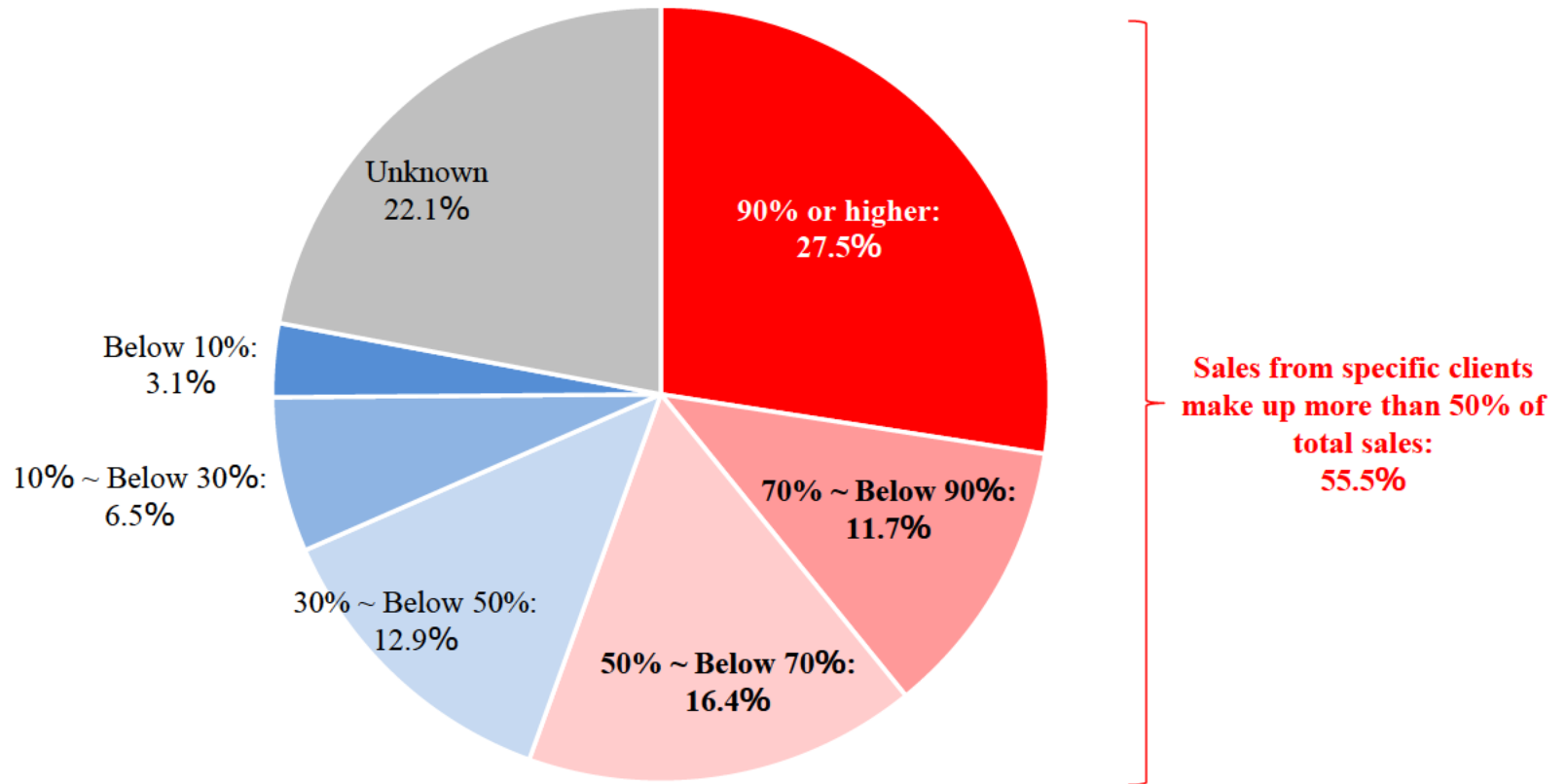
Note: Survey conducted through Internet research from October 1 to 5, 2021. Of 1,000 males and females aged 20 to 59 across Japan whose main occupation is freelance work, 397 who responded "Yes" to the question "Have you encountered any troubles in your freelance work in the past year?" were the subjects. Includes those for whom multiple items are applicable.

Source: Prepared based on Japanese Trade Union Confederation (JTUC-RENGO), "2021 Survey on the Awareness and Actual Situation of Freelancers"

Degree of Reliance by Freelancers on Specific Clients for Sales

- With regard to the degree of reliance on clients for sales, there is a tendency to rely heavily on specific clients, with more than 50% of the freelancers concentrating 50% or more of their sales on specific clients.

Percentage of sales from specific clients against total sales



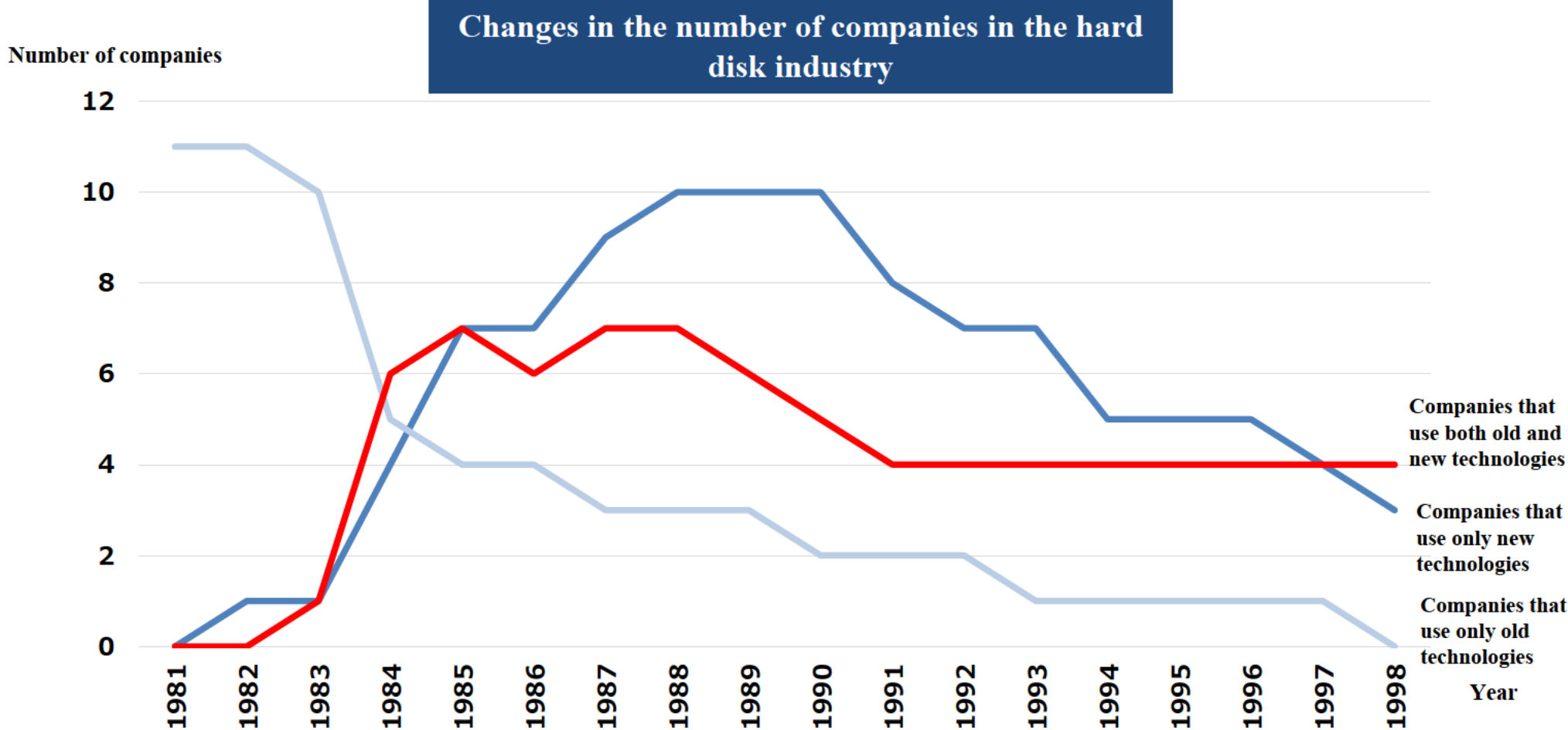
Note: Freelancers are defined as "self-employed persons or sole proprietors who do not have a physical store nor employees, but who gain income by utilizing their own experience, knowledge, and skills (excluding agriculture, forestry, and fishery workers)."

Tabulation of responses to the question "Among your clients, what is the percentage of sales to the client who generates the largest amount of sales for you, against your total sales as a freelancer/self-employed person (total amount of remuneration received)?" (Single answer) (Number of responses: 4,243)

Source: Prepared based on the questionnaire conducted on freelancers, implemented jointly by the Cabinet Office, Japan Fair Trade Commission, MHLW, and The Small and Medium Enterprise Agency from July 20 to August 20, 2021

Sustainability of Companies Using Old Technologies

○ According to discussions on traditional disruptive innovation, companies that have been using old technologies will inevitably lose out to companies that have entered the market using new technologies. However, a recent empirical analysis has revealed that even companies using older technologies can stay in business (red line) if they also adopt and use new technologies.



Note: Study targeted at HDD manufacturing companies around the world, on changes in the number of companies that use old technologies to produce 5.25-inch disks and use new technologies to produce 3.5-inch disks.

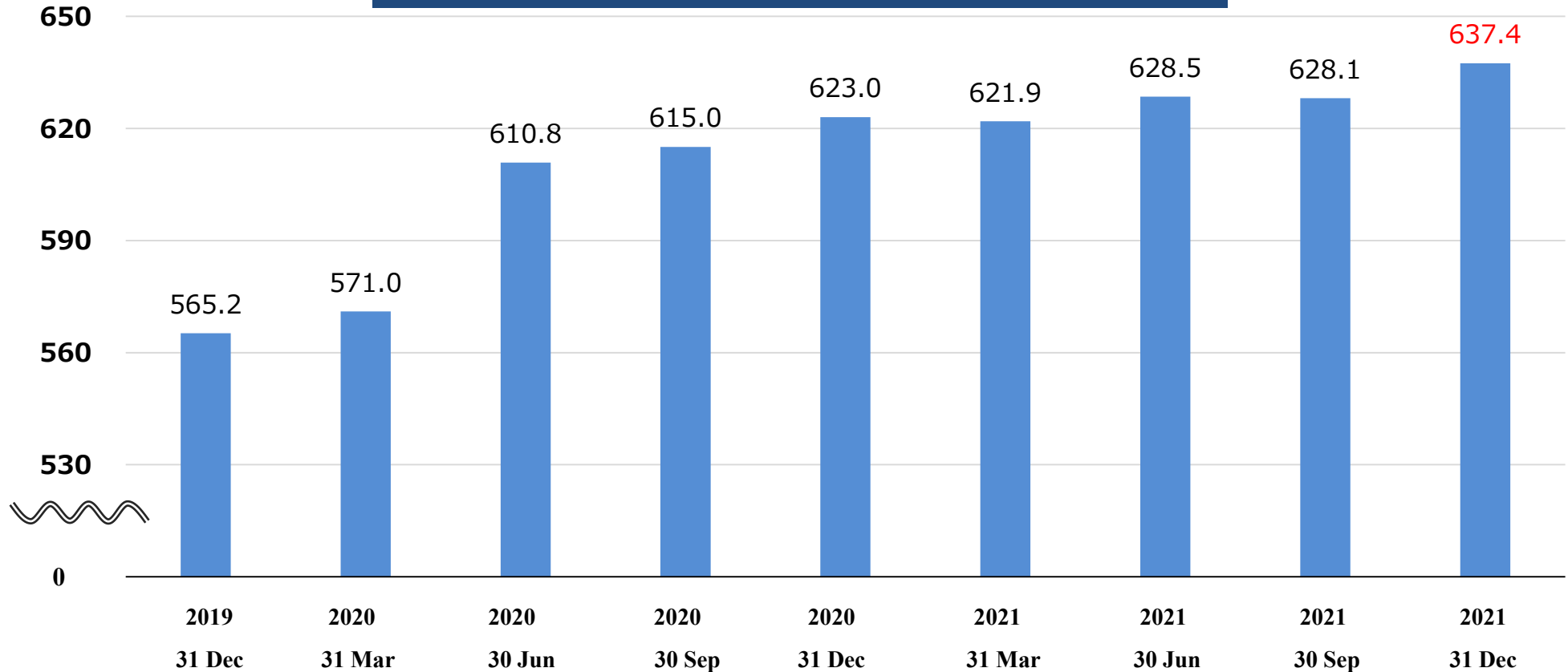
Source: Mitsuru Igami. 2017 "Estimating the Innovator's Dilemma: Structural Analysis of Creative Destruction in the Hard Disk Drive Industry, 1981–1998" *Journal of Political Economy*, University of Chicago Press, vol. 125(3), pages 798-847.

Impact of COVID-19 on Corporate Debt

○ The outstanding debt of Japanese corporations has increased by 72.2 trillion yen, from 565.2 trillion yen at the end of December 2019, before the COVID-19 pandemic, to 637.4 trillion yen at the end of December 2021.

Outstanding
corporate debt
(Trillion yen)

Trends in outstanding corporate debt of non-financial corporations in Japan



Note: Changes in the total amount of debt (amount loaned out by financial institutions, amount of corporate bonds issued) in private and public non-financial corporations (special corporations such as public corporations and agencies, local public corporations, municipal enterprises, etc.). Preliminary figures are used for figures for the end of December 2021.

Source: Prepared based on Bank of Japan, "Flow of Funds Accounts" (Published on March 17, 2022)

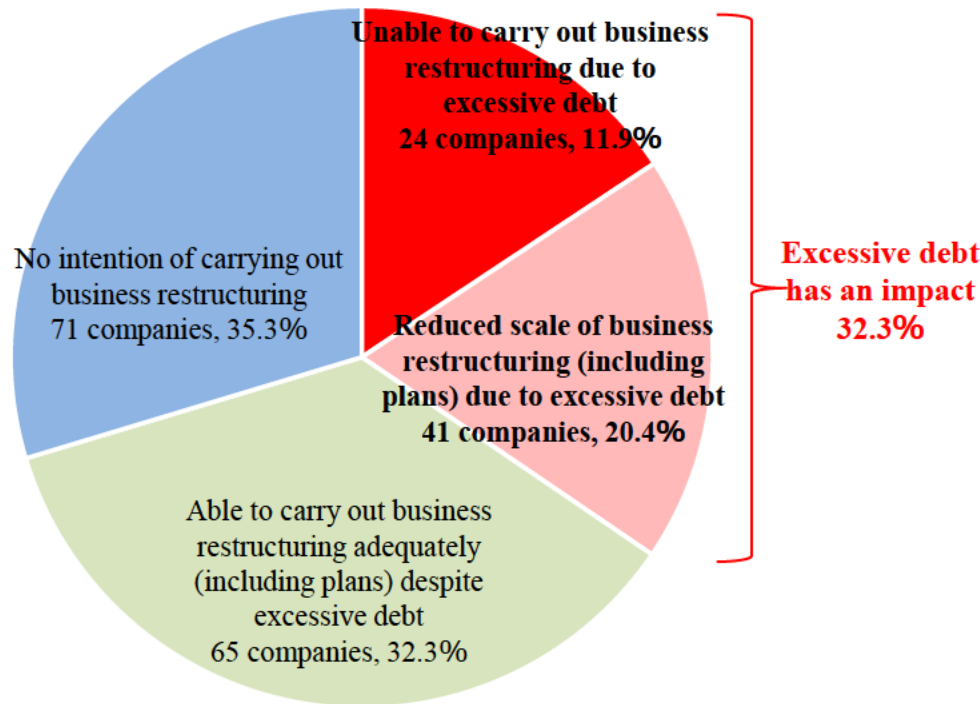
Impact of Debt on Business Restructuring Efforts

○ Among the companies that reported excessive debt, 32.3% of large companies and 34.5% of small- and medium-sized enterprises reported that debt was holding them back from restructuring their businesses.

Impact of debt on business restructuring *Survey on companies that reported excessive debt

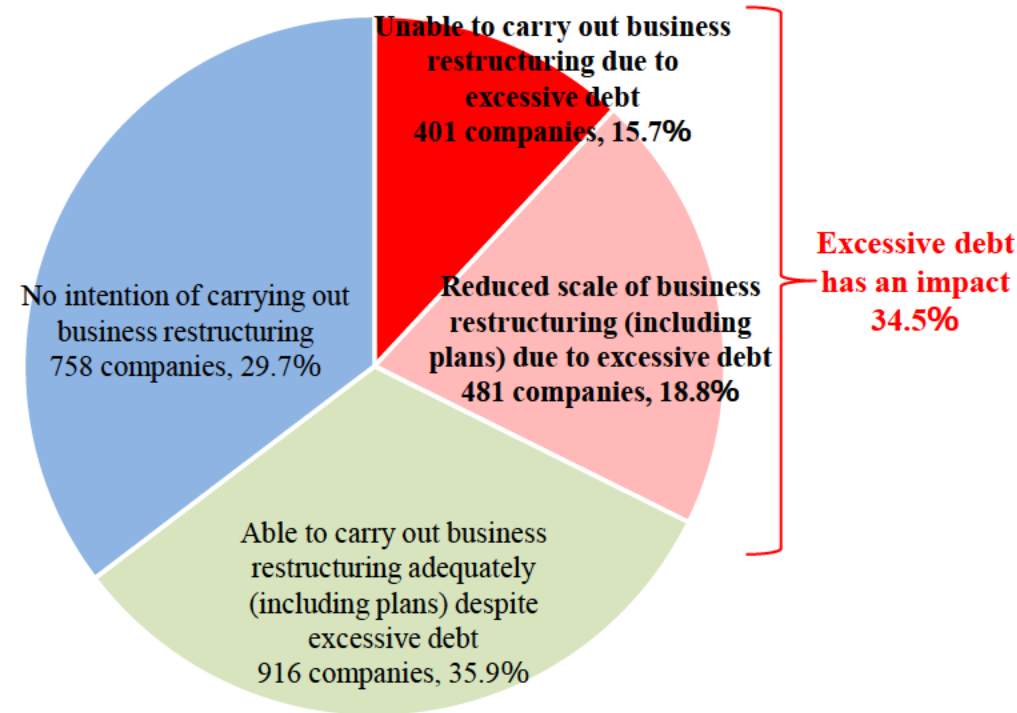
Large companies (201 companies)

*Capital of 100 million yen or more



SMEs (2,556 companies)

*Capital of less than 100 million yen



Note: Results of questionnaire conducted on large companies and SMEs across Japan from August 2 to 11, 2021.

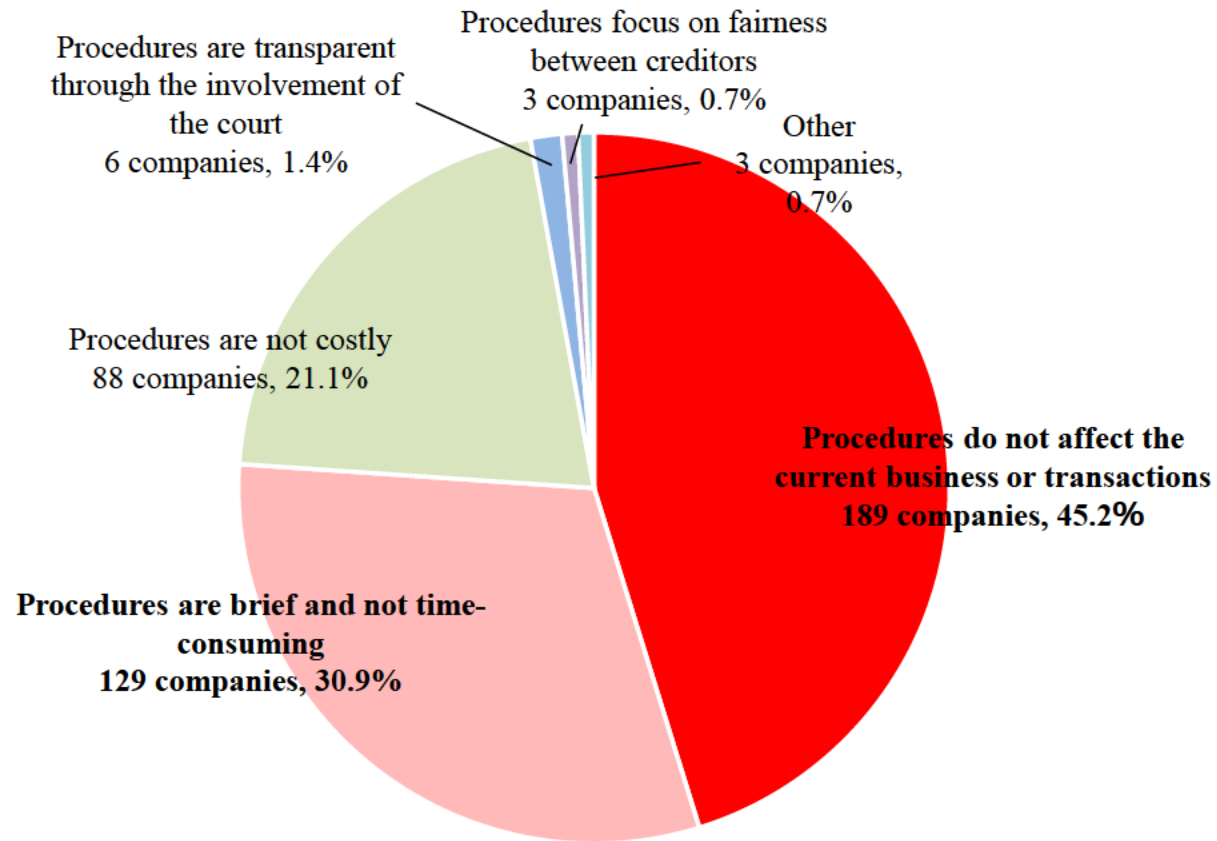
Percentage of responses to the question "Has the debt situation had an impact on your company's business restructuring efforts?" (Number of responses: 2,757 companies)

Source: Prepared based on Tokyo Shoko Research, "3rd Survey on Excessive Debt," (August 17, 2021)

Corporate Areas of Focus During Business Rehabilitation

○ Companies who responded that they may consider business rehabilitation if the COVID-19 pandemic became prolonged were asked about the factors they place the greatest importance on when considering business revitalization. The answers included ensuring these procedures would not affect their current business or transactions (45.2%) and that the procedures would be brief and not time-consuming (30.9%).

Areas of focus during business rehabilitation *Survey on companies that may reconsider business rehabilitation



Note: Results of questionnaire conducted on large companies and SMEs across Japan from August 2 to 11, 2021.
Percentage of responses to the question "What do you place the greatest focus on when considering business rehabilitation?" (Number of responses: 418 companies)
Source: Prepared based on Tokyo Shoko Research, "17th Survey on COVID-19," (August 24, 2021).

Overview of Overseas Voluntary Liquidation and Business Rehabilitation Systems

- In European countries, unlike Japan, in addition to insolvency proceedings, there are systems in which rights modifications (such as reduction of financial obligations) can be made after a majority vote for business restructuring, etc., without requiring the consent of all lenders, although court approval is required.

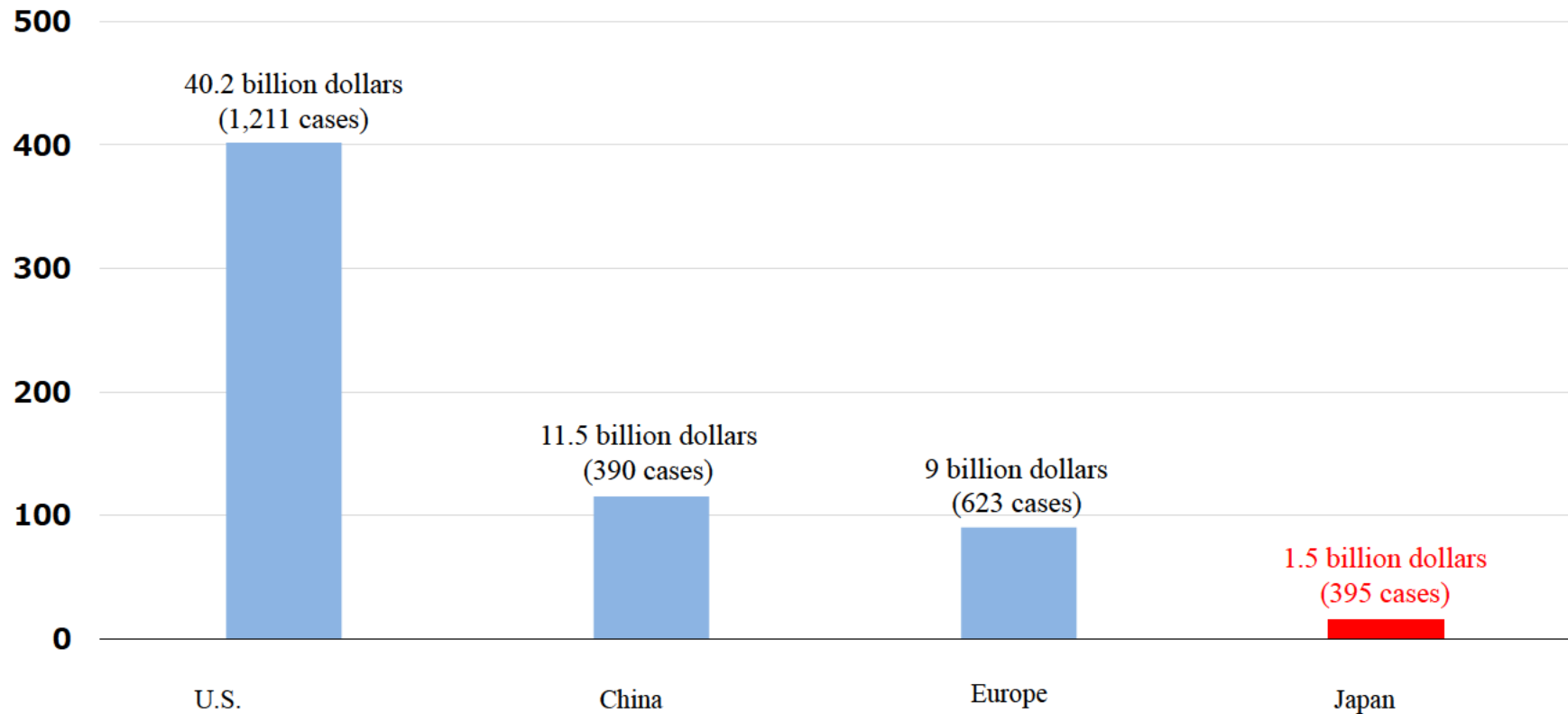
	System	Overview	Requirements for approval	Status of utilization
UK	Scheme of Arrangement (SOA)	Proceedings that enable changes to the rights of creditors through a majority decision, based on court approval (Restructuring Plan is limited to companies that are in financial difficulties, etc.)	Approval of creditors with three-quarters or more of the debt amount and agreement of the majority of the creditors	Several tens of cases per year *According to expert hearings
	Restructuring Plan (RP) *Introduced in 2020		Approval of creditors with three-quarters or more of the debt amount	
Germany	StaRUG *Introduced in 2021	Proceedings that enable changes to the rights of creditors through a majority decision, based on court approval	Approval of creditors with three-quarters or more of the debt amount	About 10 cases per year *According to expert hearings
France	Accelerated safeguard proceedings *Introduced in 2014 (amended in 2021)	Proceedings that enable changes to the rights of creditors through a majority decision, based on court approval , in cases where arbitration to resolve the problem by agreement fails.	Approval of creditors with two-thirds or more of the debt amount	6 cases (2018) *According to the Ministry of Justice of France (case number includes cases under the system prior to accelerated safeguard proceedings)
U.S.	Chapter 11	Proceedings that enable changes to the rights of creditors through a majority decision, based on court approval	Approval of creditors with two-thirds or more of the debt amount and agreement of the majority of the creditors	8,333 cases (2020) *According to the U.S. Federal Courts

International Comparison of Investment in Start-ups by Companies

- Investment in start-ups is important toward promoting open innovation by existing companies.
- The amount of investment in start-ups by companies in Japan is at an extremely low level in comparison with the U.S., China, and Europe.

International comparison of investment in start-ups by companies (2020)

Investment in start-ups by companies
(Hundred million dollars)



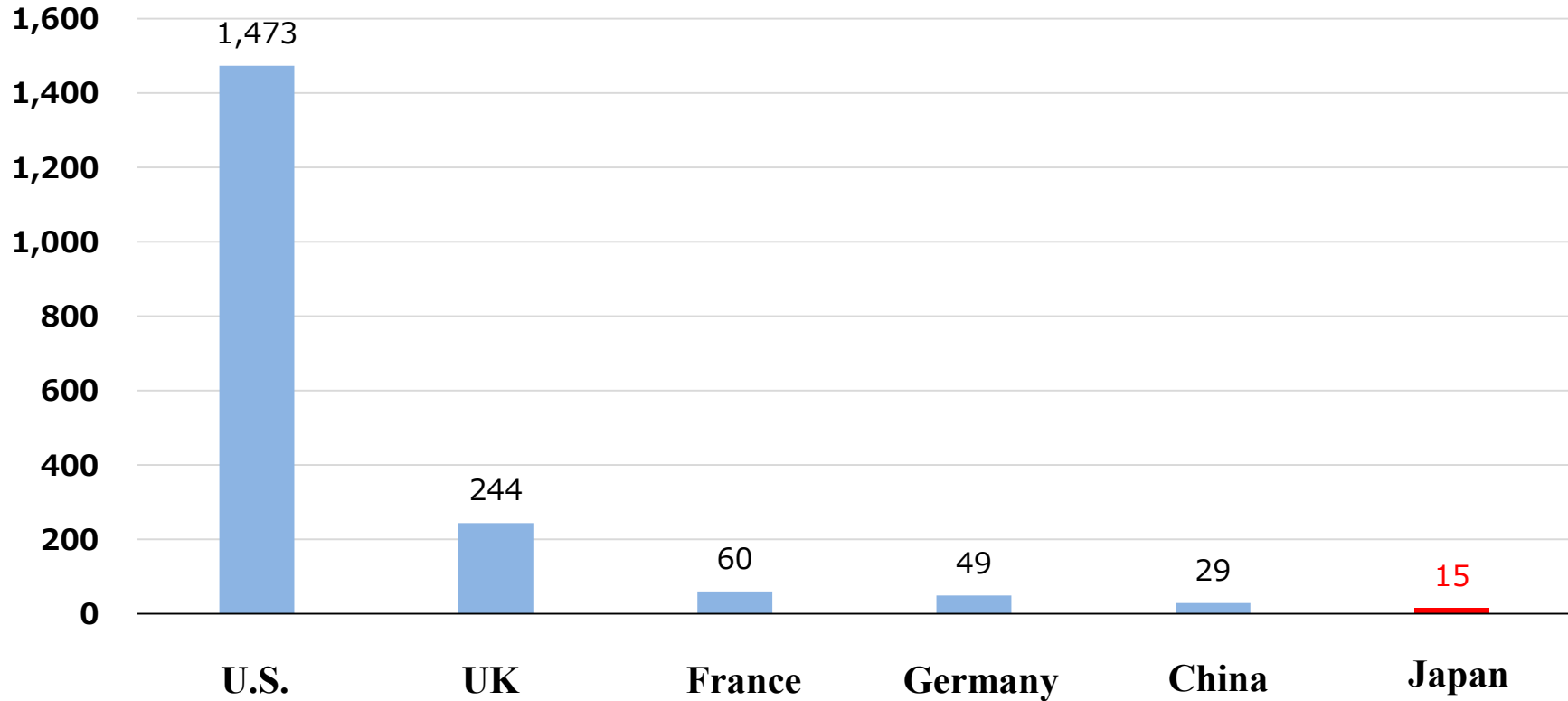
Note: Investment in start-ups by companies in each country in FY2020.
Source: Prepared based on CB Insights, "The 2020 Global CVC Report"

International Comparison of Mergers and Acquisitions of Start-ups

- Acquisition is important both as an exit strategy for startups and as a way of promoting open innovation amongst large pre-existing corporations.
- Japan has an extremely low number of merger and acquisitions in start-ups in comparison with Europe and the U.S.

International comparison of mergers and acquisitions of start-ups (2018)

(Number of cases)



Note: Number of mergers and acquisitions in FY2018, within 10 years from establishment.

Source: Prepared based on Mitsubishi Research Institute, "Survey and Research on the Approach to Business Integration of Large Companies and Venture Companies," (commissioned study by METI, FY2018)

New Corporate Forms for Public Roles

- Some countries have corporate legal system which makes companies play public roles.
- In the U.S, this takes the form of benefit corporation legislation.

1. Overview

- Benefit corporation legislation has been enacted to fill in the gaps of the corporate law that has not set out a position for companies that place the focus on social responsibility. It is regarded as a new corporate form that integrates social objectives with business formats, and is positioned as the fourth sector after the three sectors of (1) Corporations/Economy, (2) Government/Public policy, and (3) Civil society.
- In the U.S., the first benefit corporation law was enacted in the state of Maryland in April 2010. Thereafter, it has been legislated in 37 states, while four other states are in the process of developing the legislation.
- The motivation for selecting benefit corporations as a corporate form include “allows us to have a way that I think the values of my company can continue even after it is sold and its way down the line . . . ” (sports equipment manufacturer, Patagonia), and "tells the world [these are] our values, it also more specifically tells our shareholders that this is important for us and we are going to prioritize this." (spectacles manufacturer, Warby Parker).

2. Details of legislation

- In the U.S., corporate law is a state law so the details vary from state to state. State benefit corporation legislation have been drafted mainly based on two types of legislation: Model Benefit Corporation Legislation and Delaware Public Benefit Corporation Statute. They share many points in common, as set out below:
 - There is a need to state clearly, in the articles of incorporation, that the company is a benefit corporation.
 - State law stipulates that directors have the duty to consider the fulfilment of public interests in addition to the interests of shareholders. Even in the case of incorporated companies, directors may consider the interests of other stakeholders apart from those of the shareholders in order to enhance shareholder value. However, the directors of benefit corporations are required to consider the interests of other stakeholders. In other words, they are obligated to carry out multi-stakeholder management.
 - While it is possible to convert from a regular incorporated company, it is necessary to gain the approval of two-thirds or more of the shareholders.
 - There are no restrictions on the distribution of surpluses (dividends). In short, it is permitted to pay out dividends.
 - Benefit corporations do not enjoy any tax benefits.

Status of the Establishment of Benefit Corporations

- According to a study conducted on the U.S. in 2018, between October 2010 when the first benefit corporation law was enacted in Maryland, until December 2017, 7,704 benefit corporations were established or were converted from incorporated companies. These have expanded widely across the whole of the U.S.

Proportion of benefit corporations in the U.S. by state (April 2018)

State	Proportion of benefit corporations by state against all benefit corporations in the U.S.
Oregon	26%
New York	19%
Nevada	18%
Delaware	16%
Colorado	8%
California	3%
Maryland	2%
All other states	9%

Number of benefit corporations in the U.S. by state (July 2018)

State	No.	State	No.	State	No.
Arkansas	13	Indiana	5	Oregon	2028
Arizona	10	Kentucky	1	Pennsylvania	88
California	247	Louisiana	12	Rhode Island	8
Colorado	603	Massachusetts	67	South Carolina	16
Connecticut	67	Maryland	121	Tennessee	3
DC	12	Minnesota	37	Texas	0
Delaware	931	Montana	1	Utah	36
Florida	35	Nebraska	2	Virginia	0
Georgia	1	New Hampshire	54	Vermont	0
Hawaii	14	New Jersey	5	Kansas	0
Idaho	14	Nevada	1362	West Virginia	0
Illinois	49	New York	1447		

Note: The number of benefit corporations were surveyed by inquiring with the respective state governments and other means.

Source: Ellen Berrey. 2018. "Social enterprise law in action: organizational characteristics of U.S. benefit corporations" Transactions: The Tennessee Journal of Business Law, Vol. 20, 2018

Investors in Benefit Corporations

- A characteristic of investors in benefit corporations is that in addition to investors who focus on the social and environmental impact, there are also investors who pursue profits.

Top 10 investors with a high number of deals in Delaware's benefit corporations (Total between 2013 and 2019)

Investors	No. of deals	Investment strategy
Techstars	19	Traditional
Village Capital	17	Impact
Plug and Play Tech Center	16	Traditional
500 Startups (provides investment and management support from the early stages)	15	Traditional
XRC Labs	15	Traditional
Y Combinator (helps launch businesses like Dropbox and AirBnB)	15	Traditional
MassChallenge	14	Traditional
Candide Group	11	Impact
First Round Capital	10	Traditional
Kapor Capital	10	Impact

Top 10 investors with a high value of total involved rounds in Delaware's benefit corporations (Total between 2013 and 2019)

Investors	Total involved rounds (Unit: Hundred million dollars)	Investment strategy
Google Ventures	5.59	Traditional
General Catalyst	4.75	Traditional
Thrive Capital	4.53	Traditional
Allianz X	4.20	Traditional
SoftBank Group	4.20	Traditional
OurCrowd	3.12	Traditional
Omidyar Network	1.85	Impact
Learn Capital	1.82	Traditional
Andreessen Horowitz	1.68	Traditional
XL Innovate	1.67	Traditional

Note: The research was conducted on 295 benefit corporations in Delaware, for which data could be obtained by the authors of the paper. For these companies, out of all the funding rounds (707 cases) between 2013-2019, the funding rounds for which the specific investors were identified (about half of the 707 cases) were tabulated by investors. The investors include venture capitals, accelerators, incubators, angel investors, and PE/hedge funds.

Source: Michael B. Dorff, James Hicks and Steven Davidoff Solomon. 2021. "The future or fancy? an empirical study of public benefit corporations" Harvard Business Law Review Volume 11, Issue 1.

The Fair Trade Commission's Advocacy Functions

- The Fair Trade Commission conducts investigations in areas where competition is lacking due to trade practices or regulations, and advocates improvements to these trade practices or reviews of regulations.

Examples of advocacy in recent years

<Understanding the actual situation with regard to the process of setting opening prices in new IPOs (published on January 28, 2022)>

- Investigation into factors that could cause initial prices to exceed opening prices significantly in initial public offerings (IPOs) in Japan.
- Pointed out the risk of problems related to the Antimonopoly Act in cases where lead-manager companies in a dominant bargaining position cause newly listed companies to suffer unfair disadvantages in light of regular commercial practices, such as by setting opening prices unilaterally.

<Issues with competition policy toward enhancing financial services that utilize FinTech (published on April 21, 2020)>

- Pointed out that fees for interbank settlement have been fixed for a long period of time, and are set at a level that far exceeds actual administrative costs.
- With regard to the CAFIS service (Credit And Finance Information Switching system), which is the infrastructure for credit card payments, pointed out that while cost per transaction is considered to be falling, the pay-per-use fees for each case of data processed has not been revised for more than 10 years.
- After the publication of this study, interbank remittance fees were reduced from 162 yen (117 yen for amounts below 30,000 yen) to the uniform rate of 62 yen, and CAFIS fees were reduced from the maximum 3.15 yen to 1 yen (in the case of immediate account transfer transactions).

<Issues with competition policy in the mobile phone market (published on August 2, 2016 and June 28, 2018)>

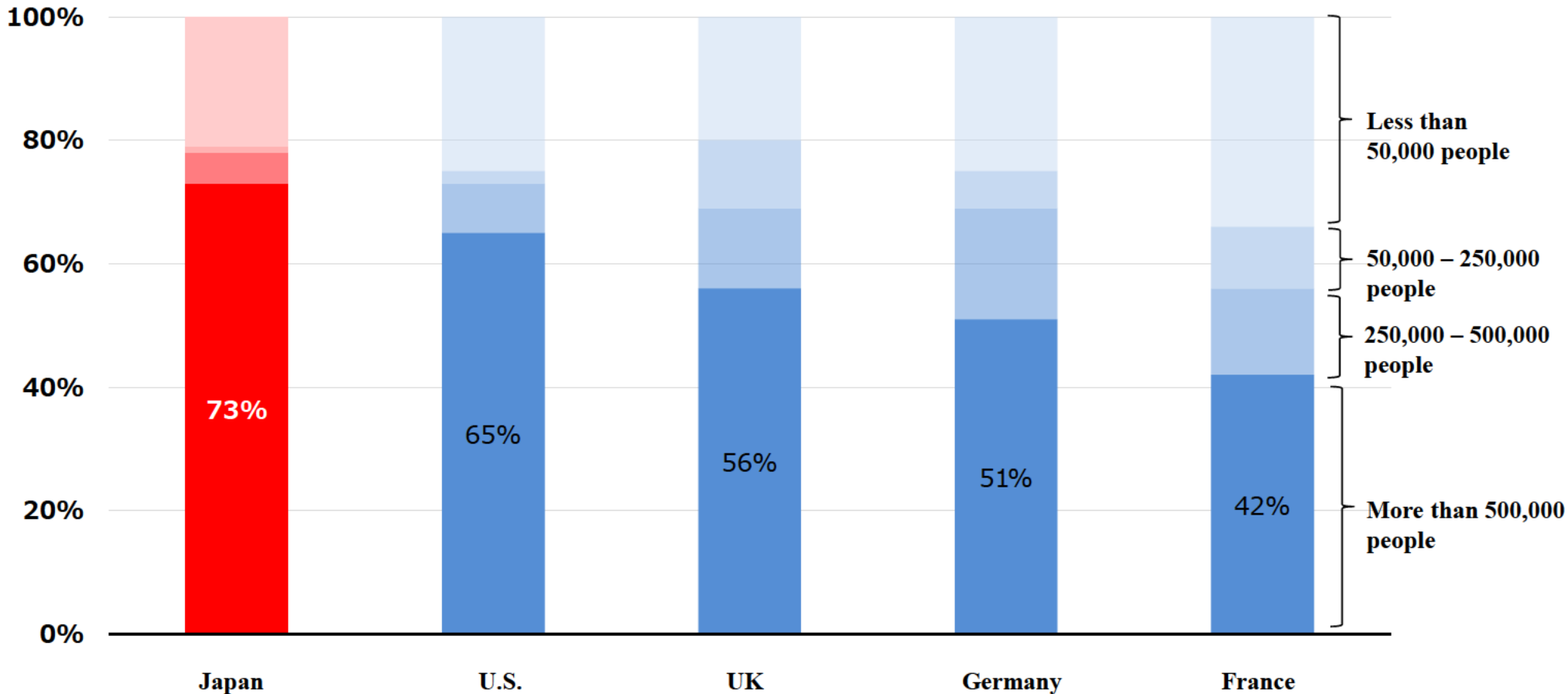
- Pointed out that it is undesirable, from the perspective of competition policy, to lock in users with unreasonably high contract termination fees, etc. for the early termination of long-term mobile phone contracts.
- Pointed out the risk of problems related to the Antimonopoly Act in cases where there is deemed to be no other rational purpose than to tie down users for two years in the so-called "two-year binding contracts," which require them to pay contract termination fees if they terminate the contract during the two-year contract period.
- After the publication of this study, the system was amended, and the contract termination fee was capped at less than 1,000 yen.

International Comparison of Concentration of Population in Large Cities

- In Japan, 73% of the total population live in large cities that have populations of more than 500,000 people.
- Population is more concentrated in large cities in Japan than the U.S. (65%), UK (56%), and other countries in Europe.

Percentage of population by size of city (2018)

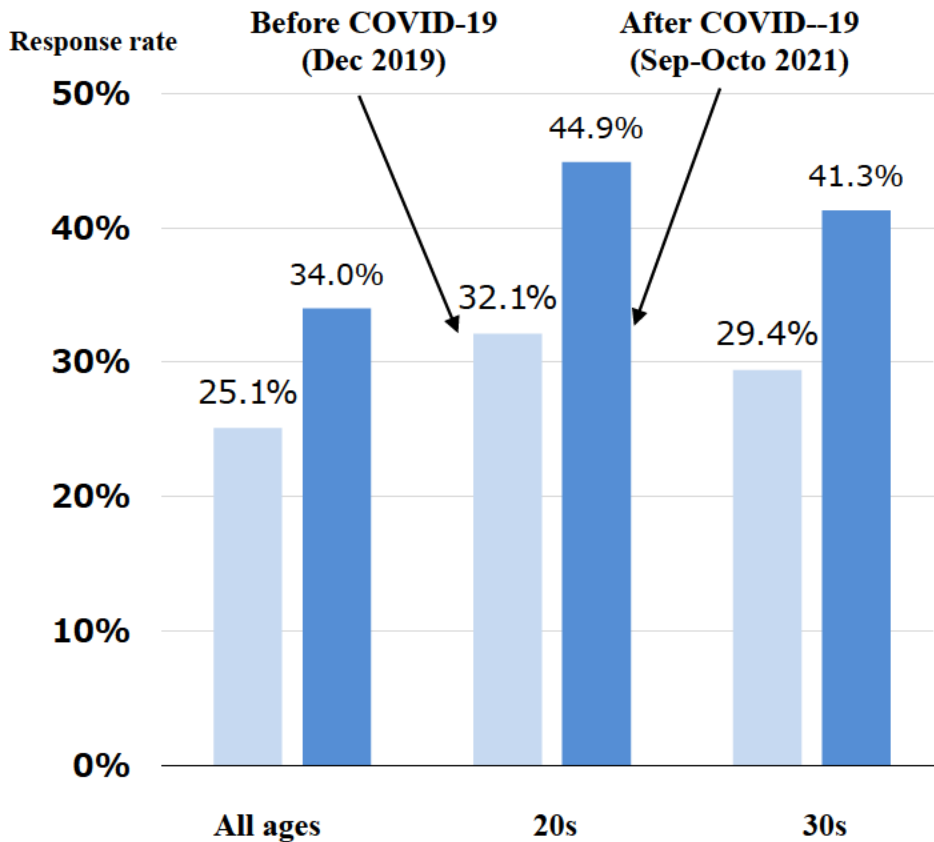
Percentage of population
by size of city



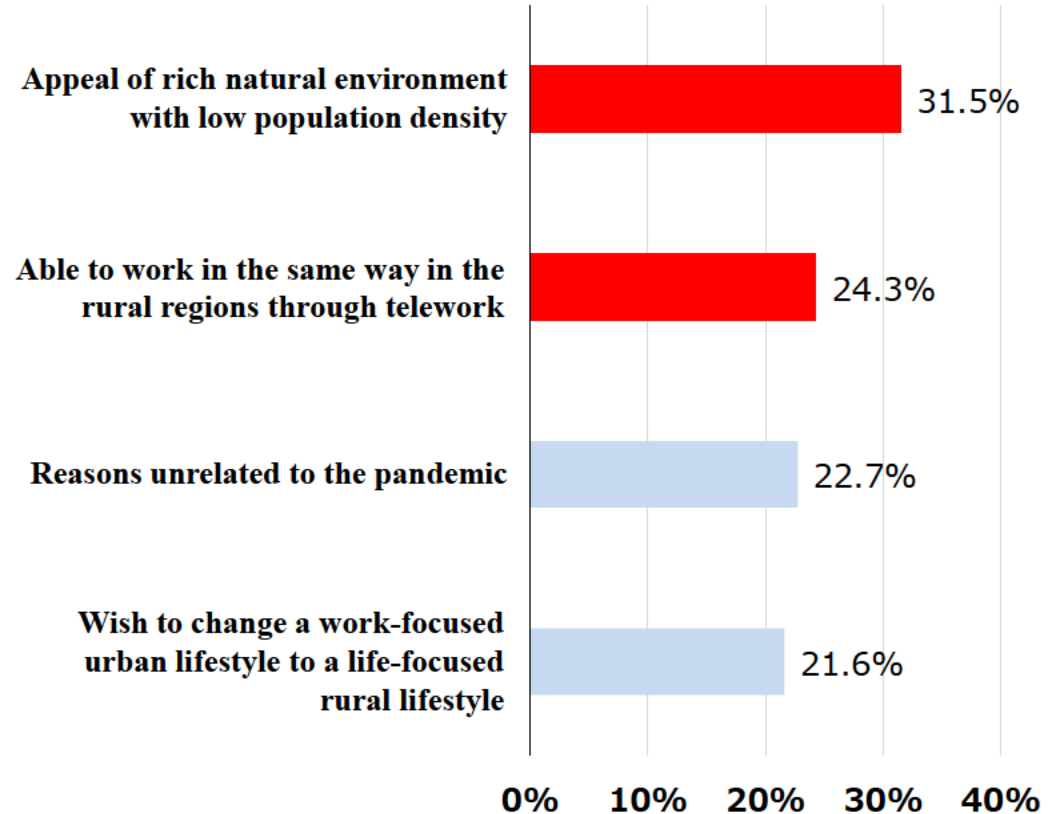
Interest in Rural Migration

- Compared to before the COVID-19 pandemic, there is growing interest in migrating to the rural areas. Interest is especially high among those in their 20s and 30s.
- In addition to being attracted to the natural environments (31.5%), reasons cited included the ability to work in rural areas through telework (24.3%).

Percentage of interest in rural migration



Reasons for interest in rural migration



Note: Left: Of the people living in the Metropolitan Tokyo region, those who selected one of (1) ~ (3) of the following choices - (1) Very interested; (2) Interested; (3) Somewhat interested; (4) Not very interested; (5) Not interested at all. the Metropolitan Tokyo region covers Tokyo, Saitama Prefecture, Chiba Prefecture, and Kanagawa Prefecture. Right: Survey on those who were living in the Metropolitan Tokyo region in September-October 2021 and who are interested in rural migration.

Source: Prepared based on Cabinet Office, Fourth Survey on Changes in Daily Life Awareness and Behavior under the Impact of the Novel Coronavirus Disease"