Section 5 Promoting "internal internationalization," including incorporating foreign technologies, talent and innovation

In order to create a virtuous cycle that realizes a productivity rise, innovation creation, a rise in the income level, and an increase in investments, it is important to promote the development of corporate systems to capture foreign demand and in-bound demand, that is, to promote "internal internationalization." This section will look at Japanese companies' collaboration with domestic and foreign startup firms and their initiatives to attract foreign workers with a high level of knowledge and skills (hereinafter "highly skilled foreign professionals") and inward foreign direct investments.

1. Promoting innovation through collaboration with foreign startups

This subsection will first point to the importance of investment in and support for startups and then provide an overview of developments related to startups around the world and in Japan. Thereafter, it will show the direction of the development of an environment to promote innovation by startups and examples of recent initiatives in Japan toward collaboration with foreign startups

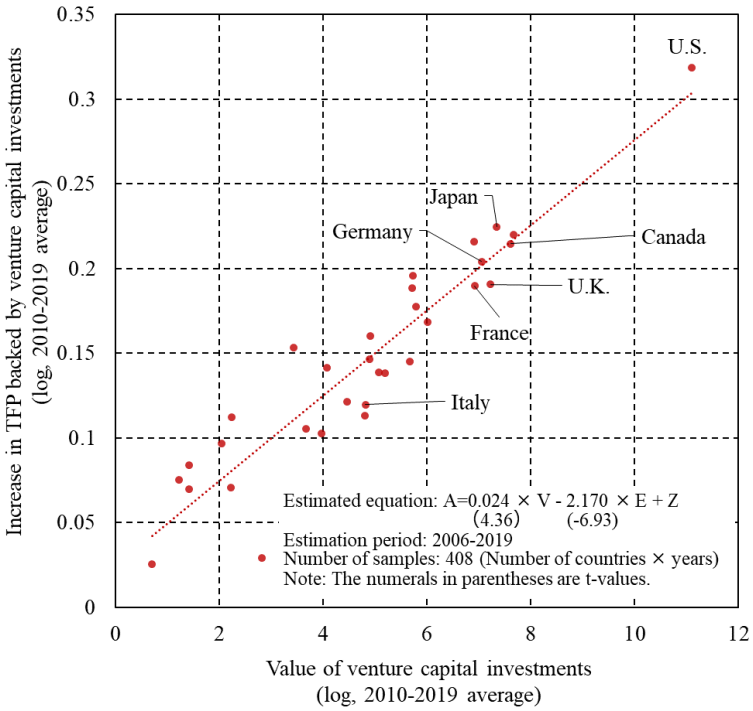
(1) Importance of investment in and support for startups

Startups are vehicles to realize a sustainable economy and society by transforming social challenges into growth engines.[244] Startups that achieve significant growth become drivers of economic growth.[245]

When we examined the impact of venture capital investments on total factor productivity (TFP) in OECD countries in order to quantitatively check the impact that investments in startups have on economic growth through innovation (for the details of the analysis, see Note 7), it was found that an increase in the value of venture capital investments leads to an increase in TFP (Figure II-2-5-1). Looking at the situations in individual countries, we can see that the United States is far ahead of other countries, achieving high economic growth through vigorous venture capital investment.

[244] The Council of New Form of Capitalism Realization (2022) "Startup Development Five-year Plan."
[245] The Ministry of Economy, Trade and Industry (2023), "Government Initiatives to Develop Startups."

Figure II-2-5-1. Relationship between the value of venture capital investments and total factor productivity (TFP)

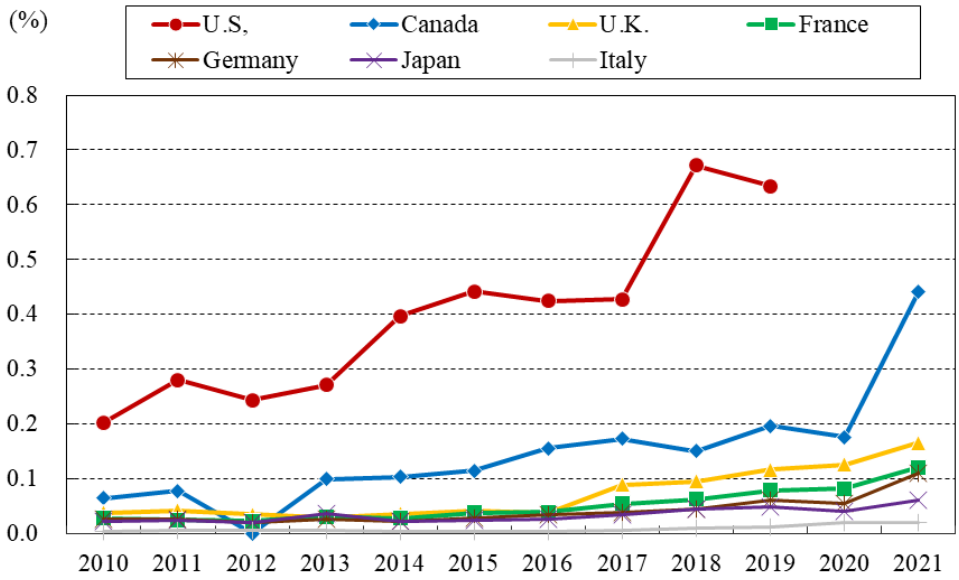


Note: The data is estimated with a fixed effects model, using a total factor productivity A as a dependent variable, a venture investment V and an aging rate E as an independent variable. The data on the vertical axis represents the results obtained by controlling the effects of fixed effect Z and the aging rate for each country based on the dependent variables, showing the average values per country calculated and plotted for the period between 2010 and 2019

Source: OECD Stat. Penn World Table 10.01., World Population Prospects (UN).

As shown by the above analysis results, investments in startups are very significant for realizing economic growth. However, while the value of venture capital investments in Japan is not low compared with the value of investment in other major countries except for the United States, the ratio of venture capital investments to GDP was 0.06% in 2021, the second-lowest level among the G7 countries, above only Italy (Figure II-2-5-2).

Figure II-2-5-2. Changes in the value of venture capital investments (rates to GDP) in G7 member countries



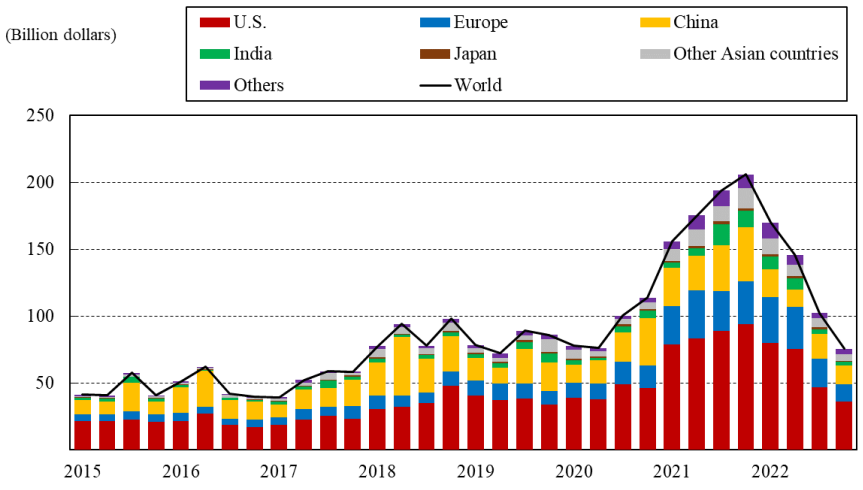
Note: The data on the U.S. are those before 2019.
Source: *Venture Capital Investments* (OECD.Stat).

In light of this situation, it is important to further promote and strengthen investments in and support for startups so that Japan does not lag behind other countries.

(2) Recent developments related to startups

The global value of venture capital investments increased significantly in 2021 because of the presence of abundant funds due to monetary easing in various countries, but in 2022, the momentum of investment slowed down (Figure II-2-5-3).

Figure II-2-5-3. Changes in world venture capital investments



Source: *Venture Pulse 2022 Q4* (KPMG). The source of the original data is PitchBook.

The scale of fund-raising in individual projects also shrunk compared with 2021. While there were 38 cases of startup fund-raising with a value of 1 billion dollars or higher in 2021,[246] there were only 14 cases in 2022 (Table II-2-5-4).

Table II-2-5-4. Large-scale fund-raising in 2022 (top 10 companies by quarter)

		Company name	Total (Billion dollars)	Fields	Countries
Q1	1	Altos Labs	**3**	Biotechnology	U.S.
	2	Checkout.com	**1**	FinTech	U.K.
	3	Flexport	0.935	Logistics	U.S.
	4	Wefox	0.8717	FinTech	Germany
	5	BYJU'S	0.8	EdTech	India
	6	JD Property	0.8	Real estate technology	China
	7	Changan New Energy Vehicles Technology	0.784	CleanTech	China
	8	Getir	0.768	E-commerce	Turkey
	9	Ramp	0.75	FinTech	U.S.
	10	Bolt	0.7105	Automobiles	Estonia
Q2	1	Epic Games	**2**	Amusement software	U.S.
	2	SpaceX	**1.7**	Aerospace	U.S.
	3	Gopuff	**1.5**	Online retailing	U.S.
	4	Trade Republic	**1.15**	FinTech	Germany
	5	Faire	0.816	E-commerce	U.S.
	6	Dailyhunt	0.805	Consumers (news app)	India
	7	Ramp	0.7483	FinTech	U.S.
	8	Kitopi	0.715	FoodTech	UAE
	9	The Boring Company	0.675	Infrastructure	U.S.
	10	CanSemi	0.6718	Manufacturing	China
Q3	1	SpaceX	**1.9**	Aerospace	U.S.
	2	Celonis	**1.4**	BtoB software	Germany
	3	Sunwoda EVB	**1.2**	CleanTech	China
	4	Northvolt	**1.1**	CleanTech	Sweden
	5	TeraWatt Infrastructure	**1**	ClimateTech	U.S.
	6	Klarna	0.8	FinTech	Sweden
	7	TerraPower	0.75	CleanTech	U.S.

[246] Ministry of Economy, Trade and Industry (2022) *White Paper on International Economy and Trade 2022*.

		Company name	Total (Billion dollars)	Fields	Countries
	8	Hubei High-Tech Advanced Material	0.7446	Electricity facilities	China
	9	Vital Thin Film Materials	0.64375	Raw materials	China
	10	SumUp	0.6029	FinTech	U.K.
Q4	1	GAC Aion	**2.6**	Automobiles	China
	2	Anduril	**1.5**	Aerospace and defense	U.S.
	3	SHEIN	**1**	Retailing	China
	4	TerraPower	0.83	CleanTech	U.S.
	5	SPIC Hydrogen Energy	0.631	CleanTech	China
	6	Voyah Car Technology	0.6308	CleanTech	China
	7	Group14 Technologies	0.614	CleanTech	U.S.
	8	ESWIN Material	0.5621	Semiconductors	China
	9	Fei Hong Technology	0.5375	Robotics	China
	10	Einride	0.5	Automobiles	Sweden

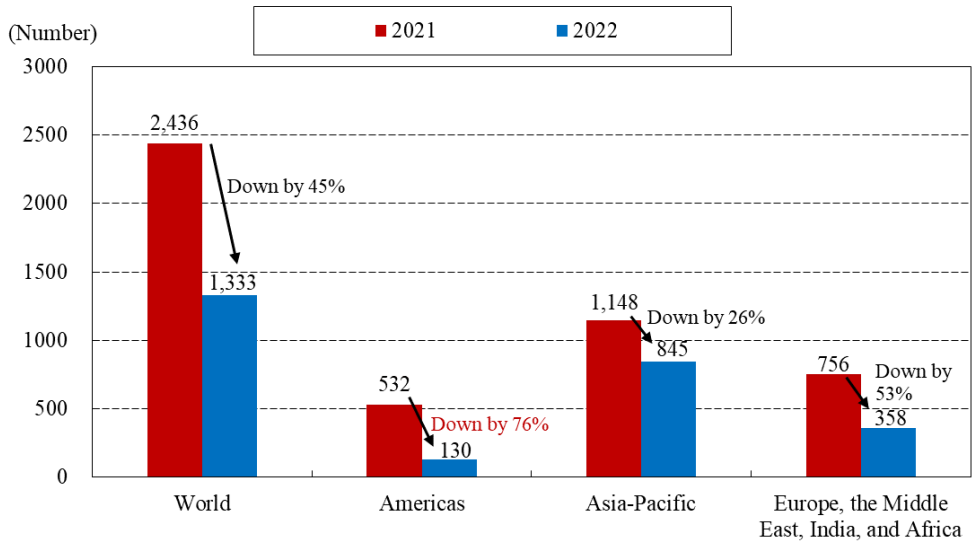
Source: Quarterly reports in 2022 of *Venture Pulse* (KPMG). The source of the original data is PitchBook.

Among the factors behind the shrinkage were not only a reaction to the strong growth in 2021 but also economic turmoil due to geopolitical factors, such as the situation in Ukraine, and investors' increasingly cautious stance amid concerns over recession due to monetary tightening by central banks in the United States and other countries.

The number of cases of fund-raising through initial public offering (IPO) executed as an exit option and the value of funds raised in 2022 declined considerably from the previous year (Figures II-2-5-5 and II-2-5-6). Worldwide, the number of cases of IPO fund-raising fell 45%, from 2,436 cases in the previous year to 1,333 cases, while the value of funds raised dropped 61%, from 459.9 billion dollars to 179.5 billion dollars. In particular, the slump in the Americas was steep compared with the situations in other regions: the number of cases of IPO fund-raising there fell 76% and the value of funds raised dropped 95%. It was reported that in the United States, startups' IPOs were cancelled one after another in 2022.[247]

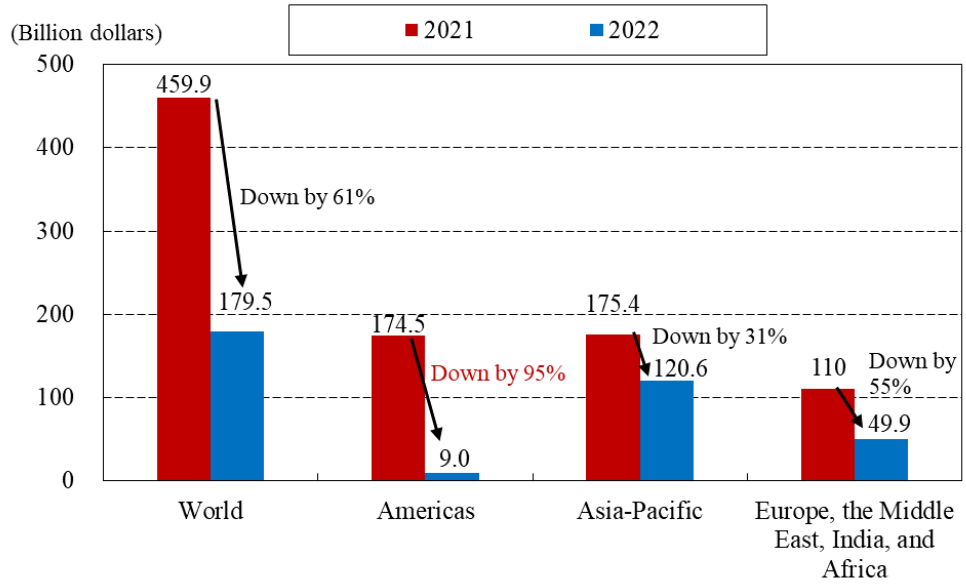
[247] The electronic version of Nihon Keizai Shimbun ("Global IPO Fund Raising Value Fell 65% in 2022—IPOs Cancelled One after Another in US," January 4, 2023). It was reported that the number of companies that cancelled IPOs in 2022 was 173 (as of December 16, 2022), the highest level since 2000, when the number was 265, according to the results of a survey published by a U.S. financial research firm.

Figure II-2-5-5. Number of IPOs in the world



Source: *EY Global IPO Trends 2022* (EY).

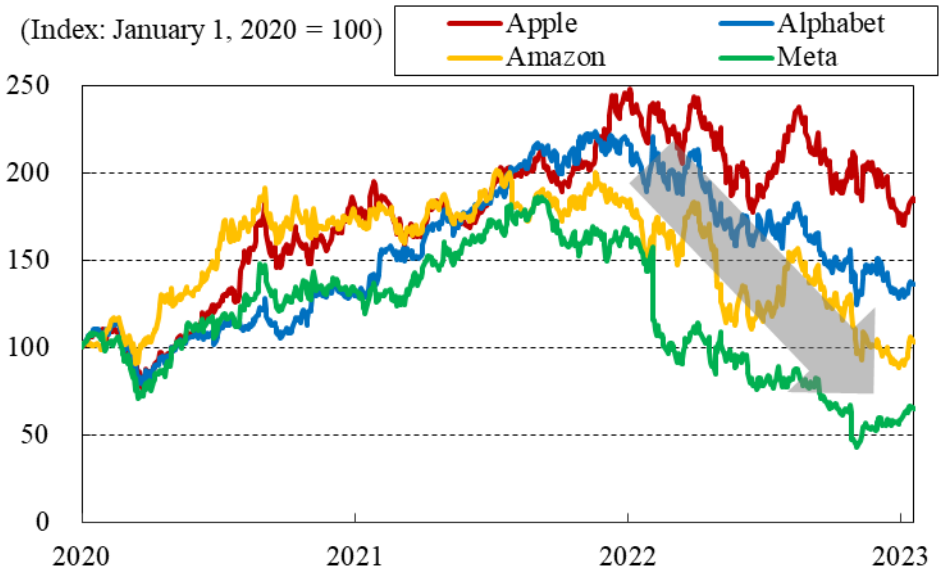
Figure II-2-5-6. Changes in the value of funds raised



Source: *EY Global IPO Trends 2022* (EY).

Stock prices of major U.S. tech companies also fell steeply in 2022, reflecting the deterioration of earnings (Figure II-2-5-7).

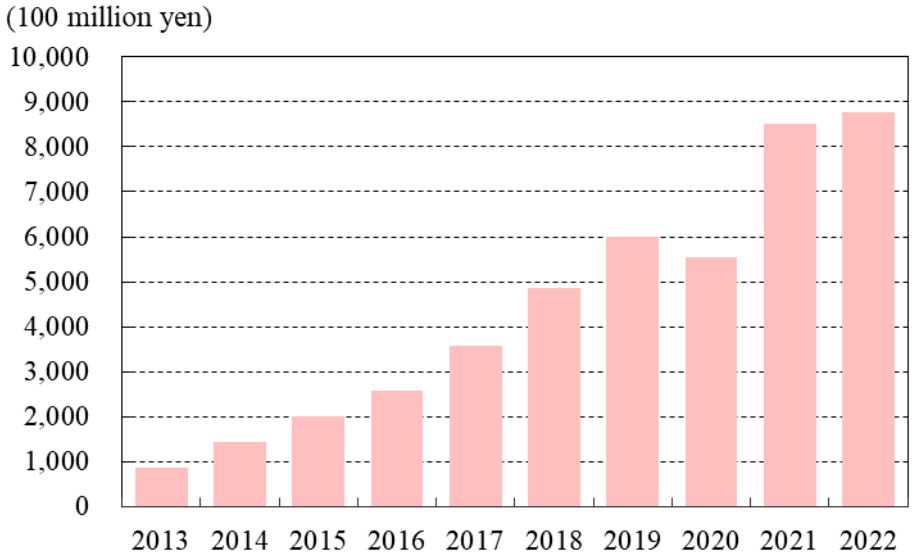
Figure II-2-5-7. Changes in share prices of U.S. tech companies through the end of 2022



Source: Refinitiv.

While the global value of investments in startups shrank, the value of investments in startups in Japan in 2022 is estimated to be almost the same level as the value in 2021 (Figure II-2-5-8).

Figure II-2-5-8. Value of funds raised by domestic startups



Source: INITIAL website (https://initial.inc/enterprise/resources/japanstartupfinance2022). The data is as of January 19, 2023.

Regarding robust investments in domestic startups, there were cases of large-scale fund-raising by startup firms engaging in such businesses as natural energy power generation, corporate credit cards, and apps for communication between healthcare personnel (Table II-2-5-9).

Table II-2-5-9. Case examples of large-scale fund-raising by startups in Japan (2022)

(100 million yen)

Projects for power generation with natural energy power plants, including solar, wind, and small-scale hydro power generation	744.4
Corporate credit cards	621.3
Apps for communication between healthcare personnel	247.5
Matching apps for finding part-time jobs using spare time (*Sukimabaito*)	183
Consultation services for introduction and procurement of renewable energy	182.6
AI-based support services for contract review	137
Systems for construction management and operation management	122
Development of autonomous driving systems	121.6
Development of new generation bio-materials	105.3
Research and development of robot products	100

Note:The table shows fund-raising cases of 10 billion yen or more.
Source: Takahashi, F. (2023), *KOKUNAI SUTAATOAPPU SHIKIN CHOUTATSU KINGAKU RANKINGU (2022-NEN 1-GATSU-12-GATSU)* (https://startup-db.com/magazine/category/research/funding-ranking-202212).

(3) Development of an environment for a major Asian start-up hub

In November 2022, the government of Japan had the Startup Development Five-Year Plan (hereinafter the "Five-Year Plan") formulated by the Council of New Form of Capitalism Realization in order to promote domestic startup activity. The Five-Year Plan set the goals of increasing the value of investments in startups from around 800 billion yen in 2021, which was the year immediately before the formulation of the plan, more than 10-fold to around 10 trillion yen by FY2027 and making Japan the largest startup hub in Asia and a major global startup hub by creating 100 unicorn companies and 100,000 startups in the future. To achieve those goals, the Five-Year Plan calls for the integrated promotion of the following three pillar initiatives: "building human resources and networks for startup creation," "enhancing funding provision for startups and diversifying exit strategies," and "promoting open innovation."

The Ministry of Economy, Trade and Industry (METI) is holding discussion on a startup policy for accelerating mission-oriented innovations focusing on social challenges. To create the largest startup hub in Asia, as mentioned in the Five-Year Plan, as one of the pillars of the policy, METI will promote the development of a global ecosystem that enables startups to attract talent and funds from around the world and provide products and services in the global market, rather than concentrating on activity within Japan. METI is also conducting a study on various measures, centering on developing an ecosystem taking advantage of Japan's unique strengths, such as technological expertise, creating and nurturing startups, and shifting to a society in which each worker exercises entrepreneurship at the individual level, rather than at the company level.[248] It is also important to support startups' overseas expansion, so the Organization for Small & Medium Enterprises and Regional Innovation will invest in

[248] Ministry of Economy, Trade and Industry (2022) "Acceleration of Startup Innovation," Industrial Structure Council, Committee on New Direction of Economic and Industrial Policies.

global venture capital funds operated by Japanese and foreign entities that possess financial resources to support startups' overseas expansion and knowhow on overseas expansion and dispatch a total of around 1,000 young people aspiring for business startup to innovation hubs around the world over a five-year period. In FY2022, a startup mission was implemented in Thailand, Saudi Arabia, the United States, and the UAE to coincide with visits to those countries made by Minister of Trade and Industry Nishimura for the purpose of networking with local conglomerates and government-affiliated investment funds. METI is promoting various measures to support startups' overseas expansion and promising Japanese startups' networking activity as a policy package.[249]

Deep tech, which is a sort of technology based on scientific discoveries achieved through research in particular natural science fields, is also attracting attention as a technology with the potential to produce societal impacts, such as resolving economic and social challenges that should be addressed at the national and global levels, if deep tech is commercialized and socially implemented. Maru and Obara (2019) cited agriculture/food, the environment/energy, health, medicine, and oceans and outer space as domains and fields where deep tech may be useful for resolving challenges and AI/big data, bio materials, robotics, electronics, and sensor/IoT as specific technologies for doing so, and they went on to point out that it is important to take advantage of the many technologies that Japanese companies have cultivated because there will be a great variety of business opportunities if those various technologies are applied across those various fields.[250]

Schaede (2022) also paid attention to the fact that Japanese companies have reorganized their operations and developed deep-tech-related skills and capacity regarding critical parts and materials while maintaining their core strengths, such as manufacturing and system engineering expertise, and argued that those strengths should be taken advantage of. [251]

Deep tech startups need time until achieving commercialization, and it is also difficult to assess their enterprise value because of their use of new technologies in advanced fields. Therefore, they face challenges in terms of fund-raising before commercialization and exit strategy, including IPO. However, investors' attitude is changing, as exemplified by the emergence of venture capital funds adopting a long investment period in order to support the growth of deep tech startups.[252] As the high level of return to be delivered when deep tech startups has achieved commercialization is fueling expectations, it has been reported that the value of funds raised by university-derived startups is on an uptrend.[253] In 2021, METI

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249 Ministry of Economy, Trade and Industry, "METI Minister Nishimura Attends the Conference on Public-Private Collaboration for Encouraging Startups to Expand Business Overseas" (April 11, 2023) (https://www.meti.go.jp/english/press/2023/0411_001.html).

250 Maru, Y. and Obara, K. (2019) *Deep Tech—"Dormant Technologies" that Will Open Up the Future of the World*, Nikkei BP.

251 Schaede, U., Trans., Watanabe, N. (2022) *The Business Reinvention of Japan: How to Make Sense of the New Japan and Why It Matters*, Nikkei BP.

252 Nikkai Kogyo Shimbun, "*Shinso Danmen*: Investment in Deep Tech Emerging Firms Growing Rapidly—Attention Focusing on Advanced Technologies for Resolving Social Problems" (September 7, 2022, p.28). Reporting on a case of the "ANRI GREEN" fund (12 years [may be extended by up to three years]), which specializes in decarbonization (a press release by the company: https://note.com/anri_vc/n/n309cf0cdfee0, https://prtimes.jp/main/html/rd/p/000000020.000040191.html).

253 Nikkai Kogyo Shimbun (the same as above).

established a debt guarantee scheme for private-sector loans in order to promote investment in deep tech startups. Under this scheme, venture capital firms whose business plans have been authorized may be provided with guarantee by the Organization for Small & Medium Enterprises and Regional Innovation for some loans borrowed from private-sector financial institutions designated by the Minister of Economy, Trade and Industry. In addition, METI provides support for mass production, practical application, and overseas technology demonstration through the New Energy and Industrial Technology Development Organization (NEDO), and is conducting a study on guidelines for making deep tech companies' intangible assets visible to the outside.[254]

(4) Japanese initiatives to promote collaboration with foreign startups

Abroad, startup companies are created one after another and grow into so-called unicorn companies (unlisted venture firms whose enterprise value or market capitalization is 1 billion dollars or higher) in many cases. The U.S. GAFA,[255] which have become huge tech companies, are pioneers of innovation startups that have changed people's behavior patterns through IT. In China, BAT, TMD and BTQ[256] have grown by taking advantage of China's potential as a populous country and the restrictions imposed on foreign tech companies' access to the domestic market. Companies in emerging countries, such as Flipkart, Byju's, and One97 Communications of India, Grab of Singapore, and Go-to of Indonesia, have also achieved remarkable growth. In emerging countries in particular, as exemplified by financial inclusion due to digital technology, a sort of economic development different from the gradual development that Japan and other developed countries experienced (leapfrogging) is occurring, and it can be said that emerging countries are playing a unique role as innovation creators.

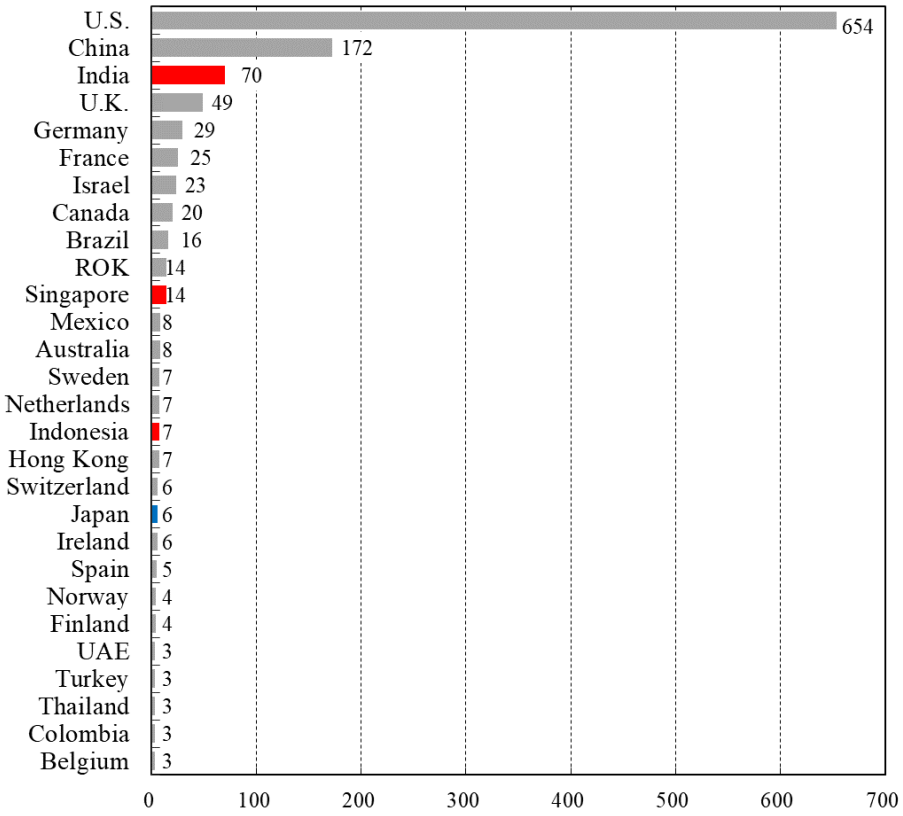
There are great expectations for the growth potential to be unlocked when synergy is achieved between the market size of Asian emerging countries, including Southeast Asian countries and India, which are expected to continue enjoying demographic bonus into the future because of their large youth population, and the digitalization movement, which is rapidly proceeding in the region. There are 70 unicorn companies in India, 14 in Singapore, and 7 in Indonesia (Figure II-2-5-10).

[254] The Ministry of Economy, Trade and Industry's working group to study challenges for making intangible assets of research and development-oriented startups visible started a study in October 2022.

[255] GAFA stands for Google (whose parent company is Alphabet), Apple, Facebook (currently known as Meta), and Amazon.

[256] BAT stands for Baidu, Alibaba, and Tencent, TMD stands for Toutiao, Meituan, and Didi, and BTQ stands for Pinduoduo, Kuaishou, and Qutoutiao.

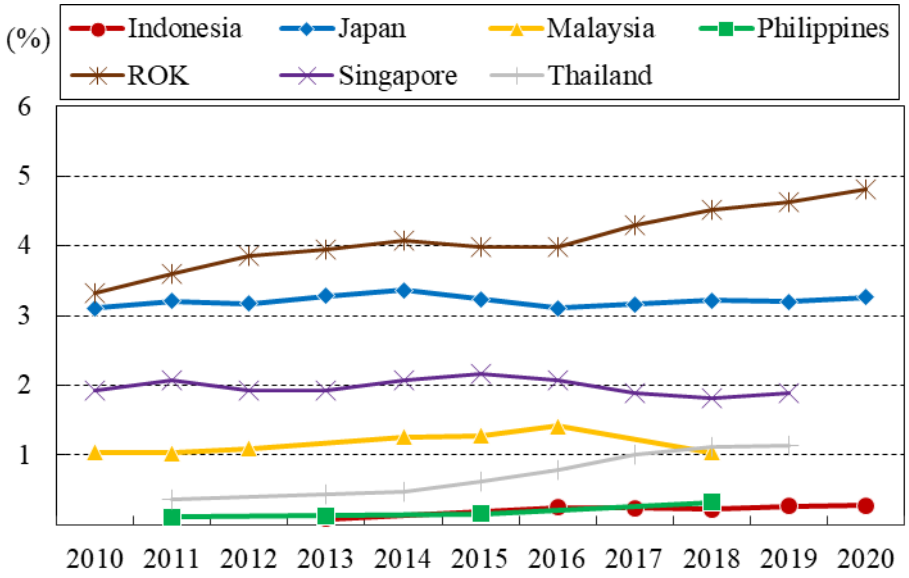
Figure II-2-5-10. Number of unicorn companies by country (as of February 2023)



Source: CB Insights website (https://www.cbinsights.com/research-unicorn-companies) (latest view: February 10, 2023).

On the other hand, in Asian emerging countries, in addition to realizing an economic recovery from the COVID-19 pandemic, it is also an important challenge to shift to a high value-added economy in the medium to long term by taking advantage of “knowledge” and “information” in order to avoid falling into the “middle income trap.” The level of investments for shifting to a high value-added economy is not sufficient in Asian emerging countries, as exemplified by the continued low level of research and development investments in Southeast Asian countries compared with the level in the Republic of Korea (ROK), which changed from a middle-income country to a high-income country (Figure II-2-5-11).

Figure II-2-5-11. Changes in the rates of R&D expenditures to GDP in Asian countries

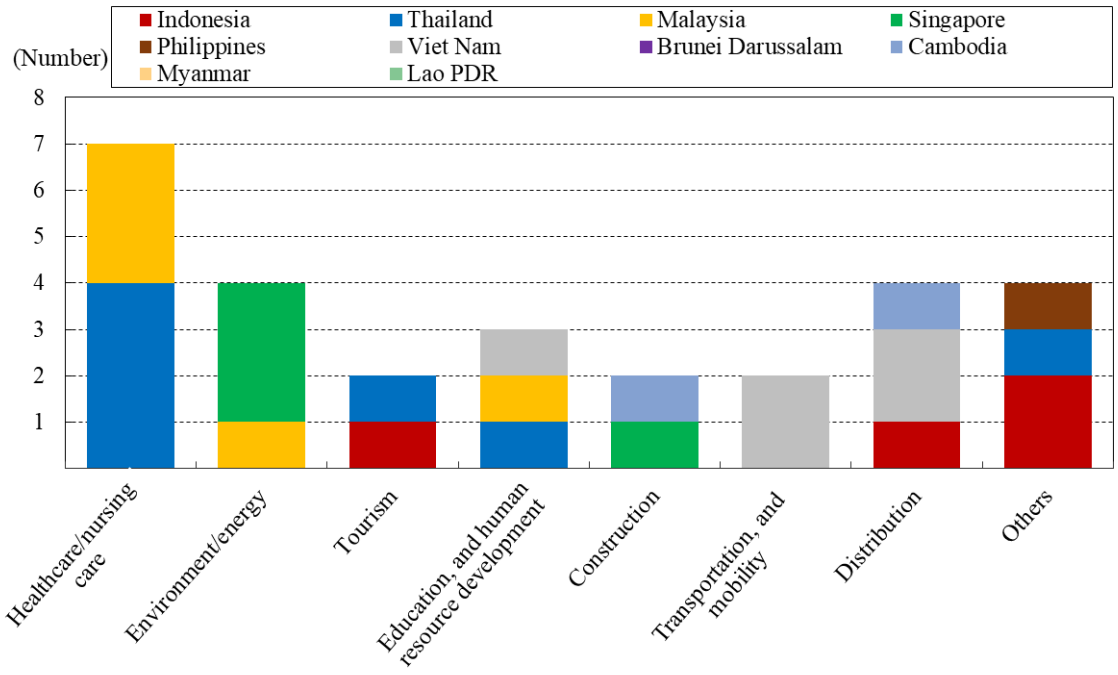


Note: Note that no data exists for some years.
Source: UNESCO.

Japanese companies' collaboration with digital technologies and startups in Asian emerging countries is significant from the viewpoints of incorporating those countries' growth into Japan's economy and promoting investments for innovation creation through digital technology in Asian countries. In particular, when developed countries incorporate emerging countries' growth into their own economies, it is important for them to capture market shares by giving careful consideration to the local needs and to take the viewpoint of "reverse innovation," which refers to the recycling of products, technologies and business models from emerging countries, and the viewpoint of "open innovation," which refers to the creation of new ideas through collaboration with the outside, rather than introducing their products and services into emerging countries' markets without making any modifications.

In Japan, METI and relevant organizations, including the Japan External Trade Organization (JETRO), are working together to promote the Asia DX Promotion Program to create new businesses through collaboration between Japanese companies and companies in Asian emerging countries. In 2022, there were 28 projects adopted as Asian DX support projects (ASEAN). The numbers of adopted projects by sector and country are as shown below (Figure II-2-5-12).

Figure II-2-5-12. Projects adopted as Asia DX support projects (ASEAN) by sector and country (2022)



Note: One of the projects in the medical care and nursing care was carried out under the category of "Malaysia/Singapore," which was recognized as a project in Malaysia.
Source: JETRO website (https://www.jetro.go.jp/news/announcement/2022/0e80b8da931addc9.html).

The fields are wide-ranging, including healthcare/nursing care (e.g., demonstration of at-home care support and development of a forecasting model concerning mosquito-borne viruses), the environment/energy (e.g., smart security for carbon neutrality, and demonstration of a system to track marine plastic litter), which involve initiatives to resolve social challenges specific to local communities, and distribution (e.g. EC platforms and efficiency improvement of logistics), and fields that require response to the needs in local markets.

As 2023 marks the 50th anniversary of Japan-ASEAN friendship and cooperation, METI will promote the program under the following three pillars: "advancing supply chains and infrastructure using digital technology," "nurturing entrepreneurs in Japan and ASEAN and developing a network of entrepreneurs," and "co-creating businesses that resolve social challenges." METI will also attract talent with extraordinary skills to Japan, encourage participation in personnel training programs and promote networking among 100 young entrepreneurs in Japan and ASEAN. At the same time, it will consider a new trade insurance scheme of Nippon Export and Investment Insurance (NEXI), strengthen support for foreign startups, encourage collaboration with Japanese companies, and promote innovations through collaboration with startups in Asian emerging countries. As a new form of cooperation with ASEAN countries in creating new innovations, METI, together with relevant government organizations of those countries, has started to implement measures to support the creation of open innovations through partnerships between startups and large companies in Japan and ASEAN as part of the ASEAN-Japan

Co-Creation Fast Track Initiative.[257] Regarding the abovementioned Asia DX Promotion Program, METI will create the Asia DX Boost UP Program, which supports further business expansion of startups that own already commercialized businesses in the ASEAN area, to coincide with the 50th anniversary of Japan-ASEAN friendship and cooperation.[258]

2. Accepting and training highly skilled foreign professionals

Accepting talent with a high level of knowledge and skills from abroad is very important from the viewpoint of realizing sustainable economic growth. Highly skilled foreign professionals bring benefits, such as an increase in overseas and in-bound business opportunities, creation of innovations related to new products and services, and revitalization of the organization through increased diversity of the workforce. In response to the intensification of competition for workers with a high level of knowledge and skills at the global level, in Japan as well, there have been new initiatives, such as easing the requirements for highly skilled foreign professionals to obtain residency qualifications. It is extremely important not only to accept highly skilled foreign professionals but also to realize an inclusive society for foreign nationals.

This subsection will provide an overview of international developments and policy trends related to highly skilled foreign professionals and foreign students in Japan, who are potentially highly skilled professionals, using rankings and questionnaire survey results compiled by international organizations.

(1) Trends in hiring highly skilled foreign professionals in Japan and policy trends in major countries

Looking back at the history of policy on accepting highly skilled foreign professionals, since the Sixth Basic Employment Plan, which was authorized by a cabinet decision made in June 1988, stated that "as employing workers while paying attention to professional and technical skills and skills particular to foreign nationals contributes to the revitalization and internationalization of Japan's economy and society, the government will consider accepting workers with such skills to the greatest possible extent while clarifying the scope of and criteria for workers to be accepted," the government has taken a positive stance in conducting studies on accepting highly skilled foreign professionals as necessary talent for Japan. At present, Japan is actively promoting the acceptance of highly skilled foreign professionals based on the ninth Basic Employment Plan (cabinet decision in August 1999) and the Basic Plan for Immigration Control and Residency Management (2019, Ministry of Justice) while reviewing the scope of acceptance in accordance with changes in the economic and social situations.[259]

In order to accept foreign workers in an appropriate manner and to create a society in which Japanese and foreign nationals can live safely and comfortably by realizing inclusion, the Ministerial Council on

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[257] Ministry of Economy, Trade and Industry, "METI launches "ASEAN-Japan Co-Creation Fast Track Initiative" to accelerate global open innovation of Japanese companies/startups" (February 15, 2023) (https://www.meti.go.jp/english/press/2023/0215_002.html).

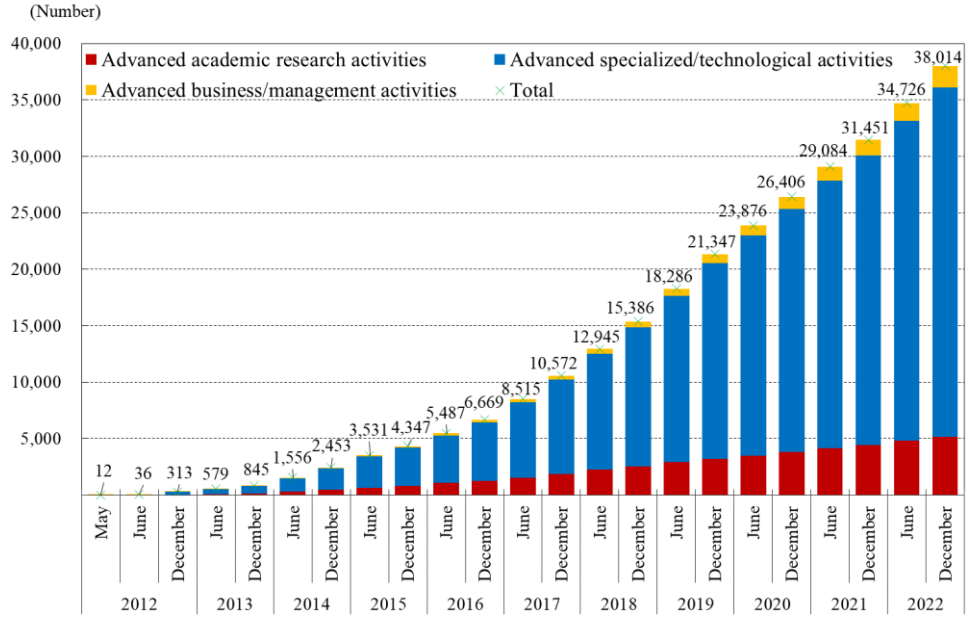
[258] Ministry of Economy, Trade and Industry, "New course for the Asia Digital Transformation (Asia DX) Promotion Program to Be Established, and the 4th Call for the Regular Course Announced" (March 28, 2023) (https://www.meti.go.jp/english/press/2023/0328_006.html).

[259] See Reference Materials 2, used at the ninth meeting of the Council for the Creation of Future Education's working group.

Acceptance and Inclusion of Foreign Human Resources has been periodically convened since 2018. "Comprehensive Measures to Realize Acceptance of Foreign Human Resources and Inclusion," which are decided by the council, sets the direction to be taken with respect to acceptance of foreign talent and inclusion.[260]

In order to promote the acceptance of highly skilled foreign professionals,[261] the Immigration Services Agency introduced the Points-based System for Highly Skilled Foreign Professionals in May 2012 and created the "highly skilled professional visa" in April 2015, granting preferential treatment in terms of immigration control.

Figure II-2-5-13. Change in the number of foreign professionals admitted under the Points-based System for Highly Skilled Foreign Professionals (total)



Source: Trends in the number of certifications under the point system for highly skilled resources (Immigration Services Agency).

[260] Since FY2022, in light of the formulation of the Roadmap for the Realization of a Society of Harmonious Coexistence with Foreign Nationals (decided at the Ministerial Council in June 2022), the Comprehensive Measures to Realize Acceptance of Foreign Human Resources and Inclusion have presented not only measures which are included in the Roadmap and which should be implemented in a single fiscal year but also measures which are not included in the Roadmap because they should not necessarily be implemented in the medium to long term although the government should implement them in order to realize an inclusive society for foreign nationals.

[261] While there is no definition of the term "highly skilled foreign professionals" with respect to residency status, in this white paper, the term is defined as those who meet all of the following three criteria: (1) those who meet the residency qualifications "highly skilled professional" and "professional/engineering fields" and who meet the qualifications "research," "technical and humanities knowledge/international work," "administration/management," or "legal/accounting work" in principle; (2) those who are expected to engage in research, engineering or other professional jobs, sales jobs responsible for overseas business expansion, legal/accounting professional jobs, or executive or managerial jobs related to business administration when they have been hired; and (3) those who have graduated from university or graduate school, or have a similar level of academic achievement in or outside Japan.

In April 2023, the "special highly skilled professional (J-Skip)" visa and the "future creation individual (J-Find)" visa were created as new visas for highly skilled foreign professionals. In order to promote the acceptance of foreign professionals with top-level skills, the "special highly skilled professional" visa enables foreign nationals to obtain the highly skilled professional visa without using the points-based system and grants preferential treatments, such as allowing the employment of an additional foreign domestic worker and easing the restrictions on the spouses' work, if their academic achievement and annual income are higher than a certain level.[262] The "future creation individual" visa, for which foreign nationals who have graduated from a university ranked higher than 100th in at least two of the three designated global university rankings in the past five years, grants preferential treatments, such as allowing a maximum stay period of two years for job hunting and preparation for startup and permitting family members to stay and work in Japan.

Other countries are also actively promoting the acceptance of highly skilled foreign professionals. For example, in May 2022, the United Kingdom started accepting applications for the High Potential Individual visa (popularly known as the HPI visa), which allows those who graduated from a world-leading university to stay in the country for two to three years without a local employment contract. In the future, the United Kingdom will start accepting applications for the Scale-up visa, which promotes the employment of highly skilled foreign nationals by U.K. companies that are in the growth stage. Through this visa, the United Kingdom aims to attract superior talent and support companies' business expansion.[263] Singapore started, in January 2023, accepting applications for the Overseas Networks & Expertise Pass (popularly known as ONE Pass) visa for highly skilled foreign professionals, for which high-income earners, specifically those whose monthly salary is 30,000 Singapore dollars (approximately 2.86 million yen) or higher are eligible. Among other countries, Thailand, Malaysia and Indonesia have also created new visas intended to attract wealthy foreign nationals and highly skilled foreign talent. In short, competition for workers is spreading from developed countries to emerging countries (Figure II-2-5-14).

[262] Activities of those who engage in the "special highly skilled professional" jobs are classified into three categories—(1) advanced academic research activity, (2) advanced professional and technical activity; and (3) advanced administration and management activity, and regarding (1) and (2), the requirements include having a master's or higher degree or experience of working for 10 years or longer, and annual income of 20 million yen or higher, and regarding (3), the requirements include having experience of working for five years or longer and an annual income of 40 million yen or higher.

[263] JETRO, "UK Introducing Visa Route for Graduates from High-Ranked Universities" (https://www.jetro.go.jp/biznews/2022/05/c429b8f7eec67b82.html).

Figure II-2-5-14. Preferential treatments in other countries for highly skilled foreign professionals that were newly established in FY2022

Singapore	(Introduction of a points-based system for issuing an Employment Pass (EP) Visa for highly skilled foreign professionals) ■ In September 2022, the country introduced a points-based system called "Complementarity Assessment Framework (COMPASS)" in addition to the minimum basic monthly salary that is the basis for issuance in the Employment Pass (EP) assessment. ■ Applicants are screened based on four criteria: (1) fixed salary of the EP applicant, (2) educational background of the EP applicant, (3) diversity of nationalities of executives and professionals, and (4) contributions of the given company to local job creation. Applicants will receive 20 points if they meet or exceed each of the four criteria, 10 points if they just meet the criteria, and zero point if they do not meet the criteria. In addition, they will receive 20 points if they apply for the occupations experiencing personnel shortages, such as artificial intelligence (AI) and cybersecurity engineers, and they will receive 10 bonus points if they are going to be involved in specific innovation or in activities for globalization. (New establishment of a working visa called "ONEPass" for highly skilled foreign professionals) ■ In January 2023, the country began accepting applications for the Overseas Networks and Expertise (ONE) Pass, a working visa for highly skilled foreign professionals. ■ ONEPass is issued to those with a monthly salary of 30,000 Singapore dollars (about 2.86 million yen) or more. However, the salary requirement is relaxed for those with outstanding achievements in the arts, culture, sports, research, and academic sectors. ■ Successful applicants are allowed to stay in the country for up to 10 years.
U.K.	■ The country launched the High Potential Individual Visa Route (HPI) Visa system in May 2022. ■ This visa will be issued to those who have graduated from a world-class university within the past five years. ■ Successful applicants are allowed to stay in the country for up to 3 years without an employment contract with a local company and to convert it to a long-term employment visa.
Thailand	■ The country launched the Long-term Resident Visa (LTR) Visa system for wealthy overseas people and investors in September 2022. ■ This visa will be issued to wealthy individuals, wealthy pensioners, Thailand-based remote-working professionals, and highly skilled professionals, each of whom meet the income and estimation requirements. ■ Successful applicants are allowed to stay in the country for up to 10 years, are exempt from the obligation to hire local people, can receive a 17% income tax reduction for their highly skilled professionals, and are not required to obtain a re-entry permit when leaving the country.
Malaysia	■ In October 2022, the country launched the Premium Visa Programme (PVIP), a new long-term stay visa for investors, entrepreneurs, and highly skilled foreign professionals. ■ The PVIP will be issued to those with overseas monthly salary of 40,000 ringgit (about 1.19 million yen) or annual income of 480,000 ringgit (about 14.3 million yen) or more in addition to other requirements that they should meet, such as a fixed deposit. ■ Successful applicants are allowed to stay in the country for up to 20 years, manage a business, work, study, and invest in a company.

Indonesia	■ In December 2022, the country launched a “Second Home Visa” system for investors, tourists, and elderly people. ■ This visa will be issued to those with savings of 2 billion rupiah (about 17.7 million yen) or more. ■ Successful applicants are allowed to stay in the country for up to 10 years.

Note: The values in this table are calculated using average currency exchange rates throughout 2022. Currencies are calculated at 1 Singapore dollar = 95.2 yen, 100 Indonesian rupees = 0.885 yen, 1 Malaysian ringgit = 29.8 yen.

Source: The Ministry of Manpower of Singapore, the Board of Investment of Thailand, the Ministry of Foreign Affairs of Malaysia, JETRO website for the data on Indonesia and the U.K.

(2) International comparison in acceptance of foreign students

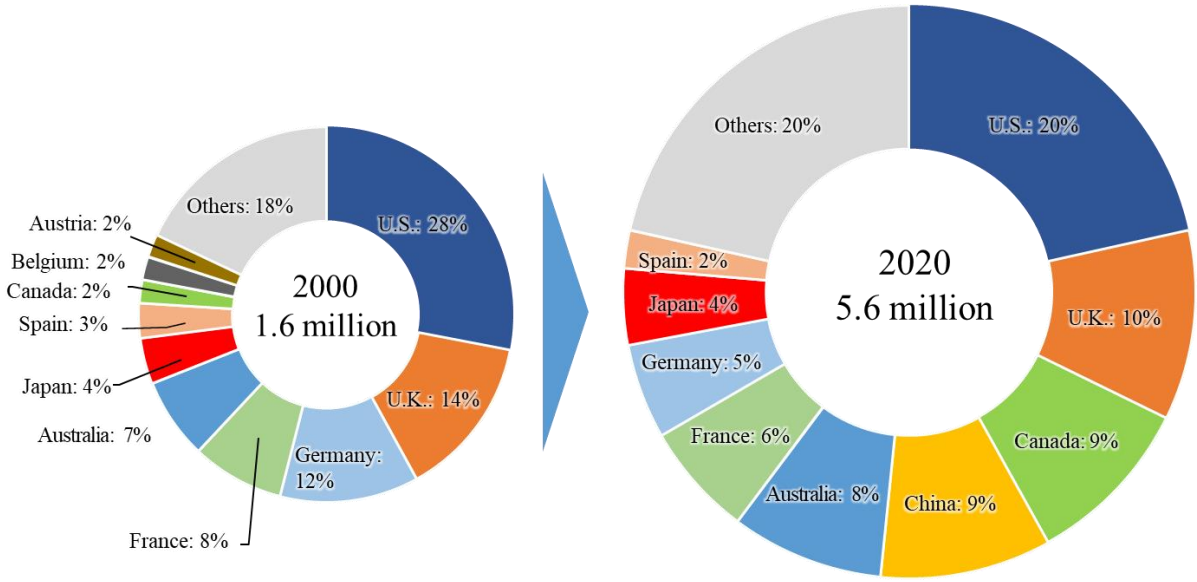
Next, let us look at the acceptance of foreign students, who are potentially highly skilled professionals.

In Japan, the Japan Revitalization Strategy (cabinet decision in June 2013) referred to the realization of the 300,000 Foreign Students Plan (2008, Ministry of Education, Culture, Sports, Science and Technology), which set the goal of accepting 300,000 students by 2020, and that goal was attained in 2019. Other major countries are also devoting efforts to policy on accepting foreign students. For example, the United Kingdom has set the goal of increasing the annual value of education-related exports to 35 billion pounds (5.6 trillion yen) and the number of foreign students studying under the U.K. higher education system to 600,000 by 2030. France aims to accept 500,000 foreign students by 2027.[264]

Under these circumstances, the global number of foreign students at higher education institutions—those at the technical college or higher level—came to 5.6 million in 2020, increasing by a factor of around 3.5 from 1.6 million in 2000. By host country, while the United States, the United Kingdom, Australia and France have been steadily ranked high in terms of the share of foreign students accepted, China and Canada have recorded a significant increase compared with 2000. On the other hand, Japan’s share has remained unchanged, at 4% (Figure II-2-5-15).

[264] Reference Materials 2, used at the ninth meeting of the Council for the Creation of Future Education’s working group.

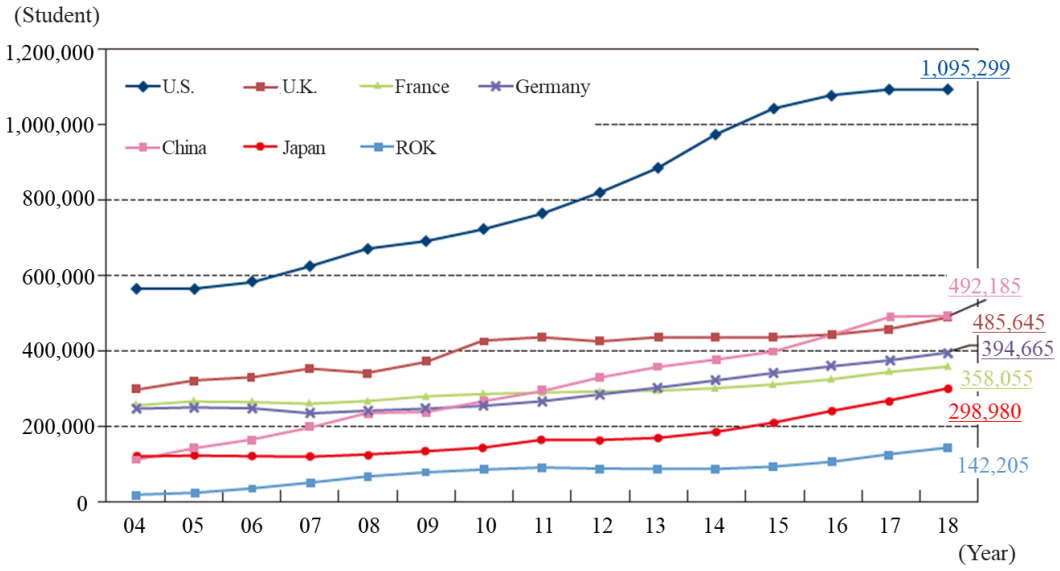
Figure II-2-5-15. Number of foreign students worldwide and share of each country (those who were accepted)



Source: Excerpts from Reference Material 3 used at the 9th meeting of the Council for the Creation of Future Education's working group.

In terms of the number of foreign students accepted at higher education institutions at the technical college or higher level in major countries, Japan and other countries are on an uptrend, with the United States registering a particularly steep increase (Figure II-2-5-16).

Figure II-2-5-16. Changes in the number of foreign students accepted by major countries

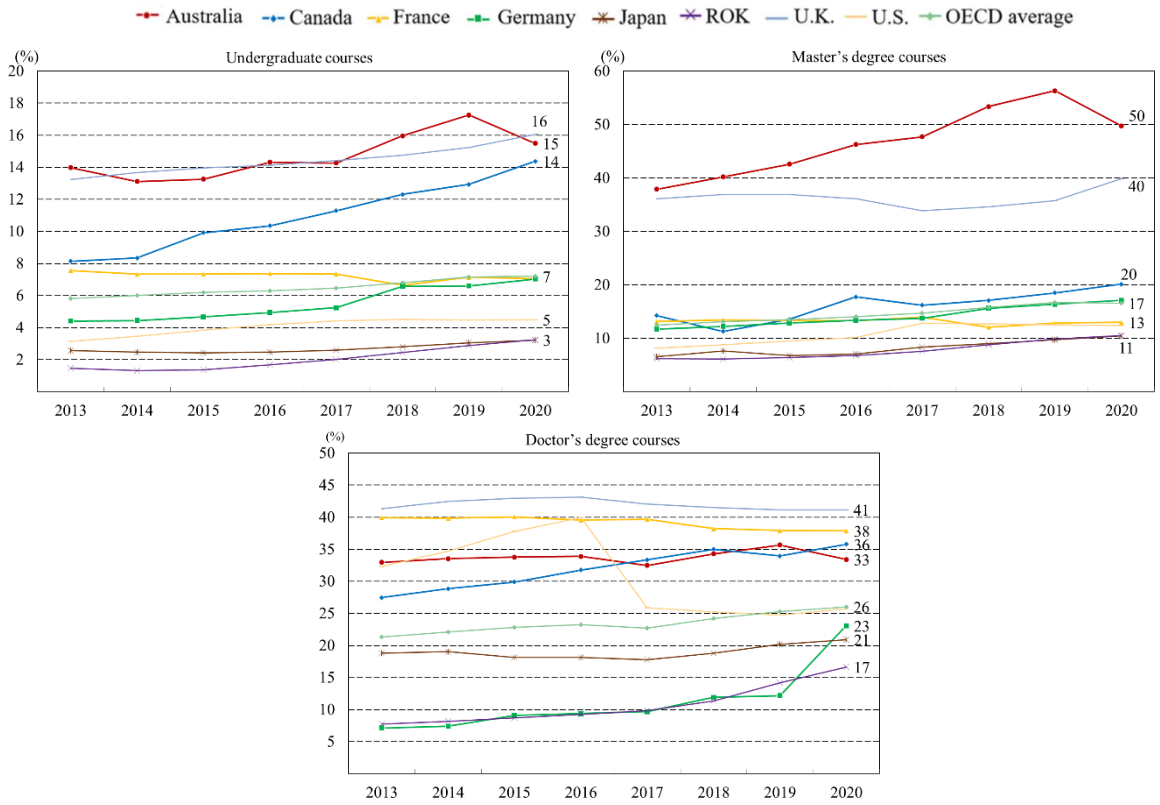


Source: Open Doors (IIE), Students in Higher Education (HESA), Federal Statistical Office of Germany, International Student Survey in Japan (JASSO), and other materials released by embassies

Source: Excerpts from Reference Material 3 used at the 9th meeting of the Council for the Creation of Future Education's working group.

At universities and graduate schools in Japan, the percentage of foreign students is around 3% in undergraduate courses, around 10% in master's degree courses, and 21% at in doctoral courses, and all of those figures are lower than the OECD averages (Figure II-2-5-17).

Figure II-2-5-17. Percentage of foreign students by course of study



Source: *Share of international students among all students* (OECD Stat.).

(3) Japan's attractiveness and problems for highly skilled foreign professionals

Although Japan's acceptance of highly skilled foreign professionals and foreign students is increasing as a trend, it is necessary to make Japan a comfortable place in which to live and an attractive place in which to do business if those people are to stay and achieve a successful career in the country in the long term. Therefore, let us identify Japan's attractive points and problems compared with other countries and regions around the world based on the rankings published by international organizations and foreign academic institutions.

The OECD Indicators of Talent Attractiveness (hereinafter the "ITA") makes it possible to compare OECD countries in terms of attractiveness for each of the four groups of talented migrants.[265] The ITA framework, which is comprised of seven dimensions (quality of opportunities, income and tax, future prospects, family environment, skills environment, inclusiveness, and quality of life), sets a total of 23

[265] https://www.oecd.org/migration/talent-attractiveness/.

to 25 variables for the four groups respectively (Table II-2-5-18).[266] [267] Not all of those dimensions have the same degree of importance for everyone, so users can compile a ranking suited to their needs by weighting the dimensions according to relative importance and to identify which country best fits the priorities. In 2019, the first version of the ITA was published with talented migrants categorized into three groups (highly educated workers, foreign entrepreneurs, aspiring foreign students), and starting this year, "start-up founders" was added as a new category. In view of the impact of the COVID-19 pandemic on the international labor market and the labor shift, "health system performance" was added as a new dimension, the level of digitalization and the level of digital infrastructure were added as new variables at the skills environment dimension, and the level of digitalization of the visa process was added as a new variable at the visa and admission policy dimension.

Under the ITA, high-ranked countries vary according to the group category.

New Zealand, Sweden, Switzerland and Australia continue to be highly attractive countries for highly educated workers. The United Kingdom has climbed significantly higher in the ranking compared with 2019, and this reflects the effects of the abolition of the quota for highly skilled workers and the robust labor market for immigrants.

Sweden, Switzerland, Canada, Norway, and New Zealand continue to be attractive for foreign entrepreneurs. Those countries have adopted policies favorable for foreign entrepreneurs' business activity.

Table II-2-5-18. Framework of the OECD Indicators of Talent Attractiveness

	Highly educated workers	Entrepreneurs	Students	Start-up founders
Quality of opportunities	- Migrant unemployment rate - Migrant over-qualification rate - Migrants with temporary contracts - Migrants with part-time contract	- Strictness of employment protection - Product market regulation index - Trade openness - Ease of doing business index	- Universities ranked in the World's top 500	- Number of unicorns - Number of multinational companies - Number of coworking spaces - Number of ecosystems in the top 150-ranking - Trade openness - Product market regulation index

[266] OECD Migration Policy Debates No29, "What is the best country for global talents in OECD?" (March 2023).

[267] OECD Migration Policy Debates No30, "What are the top OECD destinations for start-up talents?" (March 2023).

Income and tax	- Earnings of highly educated workers - Price level index - Tax wedge	- Earnings of highly educated workers - Price level index - Corporate tax	-Earnings of skilled workers -Price level index -Difference in university tuition fees between domestic and foreign students -Hours/week international students are allowed to work	- Access to venture capital - Corporate tax - Implied tax subsidy on R&D - Price level index
Future prospects	- Dependency ratio in 2050 - Acquisition of nationality - Ease of status change from temporary to permanent	- Dependency ratio in 2050 - Acquisition of nationality - Ease of status change from temporary to permanent	- Dependency ratio in 2050 - Acquisition of nationality - Ease of status change from study to temporary - Months allowed to stay in the country after graduation	- Duration of initial visa/permit before change is required - Ease in acquisition of permanent residency - Dependency ratio in 2050 - Acquisition of nationality
Family environment	- Right for spouse to join migrant and to work - Easiness for children of migrants to get citizenship - PISA math test scores (acquired scores) - Public expenditure on family benefits - Participation tax rate for second earner parent entering employment	- Right for spouse to join migrant and to work - Easiness for children of migrants to get citizenship - PISA math test scores (acquired scores) - Public expenditure on family benefits - Participation tax rate for second earner	- Right for spouse to join migrant and to work - Easiness for children of migrants to get citizenship - PISA math test scores (acquired scores) - Public expenditure on family benefits - Participation tax rate for second earner	- Right for spouse to join migrant and to work - Easiness for children of migrants to get citizenship - PISA math test scores (acquired scores) - Public expenditure on family benefits - Participation tax rate for second earner
Skills environment	- Broadband subscriptions (new) - Share of fibre in broadband (new) - English proficiency - Gross domestic spending on R&D - Total number of patents (IP5)	- Broadband subscriptions (new) - Share of fibre in broadband (new) - English proficiency - Gross domestic spending on R&D - Total number of patents (IP5)	-Broadband subscriptions (new) -Share of fibre in broadband (new) -English proficiency -Tertiary education spending	- Broadband subscriptions - Share of fibre in broadband - English proficiency - Gross domestic spending on R&D - Universities ranked in the World's top 500 - STEM graduates as share of total graduates - Cyber security

Inclusiveness	- Share of highly educated migrants in working age population - Migrant Acceptance Index (new) - SIGI Gender Equality Index	- Share of migrants in self-employed population - Migrant Acceptance Index (new) - SIGI Gender Equality Index	- Share of international students enrolled in tertiary education - Migrant Acceptance Index (new) - SIGI Gender Equality Index	- International patent co-operation - Migration Acceptance Index (MAI) - Share of women inventors - Share of women in company boards
Quality of life	- OECD Better Life Index	- OECD Better Life Index	- OECD Better Life Index	- OECD Better Life Index
Visa and admission policy	- Visa refusal rates - Visa processing time - Level of digitisation of the visa process (new) - Quota for highly skilled workers	- Minimum capital requirement - Job creation requirement - Level of digitisation of the visa process (new)	- Level of university tuition fees - Share of international students in the total student population in relation to the share of foreign-born individuals in the total population	- Lack of start-up visa (penalty) - Capital requirement (penalty) - Low visa digitization score (penalty) - International students not allowed to start - Business on post-graduation visa (penalty) - Provide Financial support (bonus) - Provide pathway for start-up employees (bonus)
Health system performance	- Out-of-pocket health spending - Satisfaction with availability of quality health care - Avoidable mortality	- Out-of-pocket health spending - Satisfaction with availability of quality health care - Avoidable mortality	- Out-of-pocket health spending - Satisfaction with availability of quality health care - Avoidable mortality	-

Source: Migration Policy Debates Nos 29 and 30 (OECD).

Among the countries attractive for foreign students are the United States, Germany, the United Kingdom, Norway and Australia. While most of the high ranked countries are those where many globally top-ranking universities are located, Norway is also ranked high despite being a minor country because it has become an attractive country for students by making large-scale investment in the education field, creating an attractive living environment, and implementing favorable migration policy.

Among the attractive countries for start-up founders are Canada, the United States, France, the United Kingdom, Ireland, and Portugal. While Canada was rated high in all dimensions, it cannot be said that the United States' policy framework for start-up founders is particularly favorable despite the presence of a robust startup ecosystem in the country. France has adopted the most favorable policies for foreign start-up founders in terms of fund-raising opportunities associated with the startup visa and employees'

career paths. Ireland and Portugal, minor European countries, are at a disadvantage in terms of quality of opportunities because of a scarcity of companies with a value of 1 billion yen or higher, but they have climbed higher in the ranking because of favorable tax systems and the low cost of living as well as high ratings in terms of future prospects and inclusion dimensions.

As for Japan, compared with the results of the previous survey in 2019, its ranking position remains low in terms of attractiveness for highly educated workers and foreign entrepreneurs. However, in terms of attractiveness for students, Japan's position has risen steeply, from 7th to 25th. Among the reasons for that are the reduction of the time necessary for changing the residency status from student to worker and the improvement of the environment for students who stay in Japan after graduation. In addition, as the share of foreign students has expanded in recent years, exports of education-related services are growing particularly strongly. As a result, revenue from foreign students increased three-fold between 2014 and 2019. However, the share of foreign students in the total number of students remains still low in Japan compared with the shares in other OECD countries. Moreover, although there is easy access to venture capital and a well-developed startup infrastructure in Japan, the country's ranking position in terms of attractiveness for start-up founders remains extremely low, 21st among the 24 countries ranked. Among the major reasons are that there are obstacles faced by start-up founders when they change the residency status to permanent resident and that start-up founders can obtain only a residency status that imposes limitations on family members' working conditions.

IMD's World Talent Ranking (December 2022) assesses 63 countries and regions with respect to the following three factors: "the investment in and development of home-grown talent" (investment & development factor); "the extent to which a country taps into the overseas talent" (appeal factor); and "the availability of skills and competencies in the talent pool" (readiness factor). In the 2022 version of the ranking, Japan was placed 41st, its lowest-ever position, falling further each year since 2018. By factor, Japan's position declined with respect to the investment & development and readiness factors while its position remained unchanged, at 27th, from 2018 onward with respect to the appeal factor. By criteria, Japan's position was high with respect to the placement of priority on attracting and retaining talents (4th) and the level of remuneration for management, including bonuses and long-term incentives (eighth), while its position is low with respect to the cost of living (59th) and attractiveness for highly-skilled foreign talent (54th).

INSEAD's Global Talent Competitiveness Index (November 2022; hereinafter "GTCI") assesses 133 countries and regions with respect to a total of six items, including four input items—external environment factors ("Enable"), the country's attractiveness ("Attract"), measures to develop talent ("Grow"), and measures to retain talent in the country ("Retain")—and two output items—"Vocational and Technical Skills" and "Global Knowledge Skills." Japan is placed 24th, below three Asia-Pacific countries, namely Singapore (second), Australia (ninth), and New Zealand (18th).

Figure II-2-5-19. Talent attractiveness ranking by ITA group (2023)

	Highly educated workers	Entrepreneurs	Students	Start-up founders
1	New Zealand (+3)	Sweden (+3)	U.S. (+5)	Canada
2	Sweden (-)	Switzerland (+1)	Germany (+1)	U.S.
3	Switzerland (-)	Canada (-2)	Norway (+1)	France
4	Australia (-3)	Norway (+1)	U.K. (+7)	U.K.
5	Norway (+5)	New Zealand (-3)	Canada (+3)	Ireland
6	Luxembourg (+5)	Luxembourg (+13)	Switzerland (-5)	Portugal
7	U.K. (+9)	Denmark (+2)	Japan (+18)	Sweden
8	U.S. (-1)	U.S. (+5)	ROK (+)	Australia
9	Netherlands (-1)	U.K. (+7)	Portugal	Netherlands
10	Canada (-5)	Ireland (-)	Sweden (-)	Lithuania
:	:	:	:	:
21	:	:	:	Japan
22	Japan (+3)	Japan (-2)	:	:

Note: Rankings are created by considering all seven aspects (Quality of opportunities, Income and tax, Future prospects, Family environment, Skills environment, Inclusiveness, and Quality of life) as "important." In parentheses, the difference in rankings is indicated by a numeral with plus (+) indicating an increase in ranking compared to that in FY2019 and minus (-) indicating a decrease in the same. The rankings shows for highly educated workers and entrepreneurs out of 38 countries, for students out of 37 countries, and for start-up founders out of 24 countries.

Source: Talent Attractiveness 2019 and 2023.

A comparison between Japan and Singapore based on the GTCI shows that while Singapore is ranked high in terms of tolerance toward minorities and immigrants, empowerment opportunities for and rights of women, and brain retention, Japan is ranked low in terms of those items. On the other hand, Japan is ranked high in terms of social protection and environment, and the rights of individuals and environmental performance. Japan is ranked global No. 1 in terms of personal safety and pension coverage (Figure II-2-5-20).

Figure II-2-5-20. Comparison of attractiveness between Japan and Singapore based on GTCI

	Variables	Definitions	Japan	Singapore
Items in which Japan ranks high	Pension coverage	Population above statutory pensionable age receiving a pension (%)	1	90
	Personal safety	Deaths from interpersonal violence, perceived criminality, political killings and torture, and transportation-related fatalities	1	2
	Personal rights	Political rights, freedom of expression, freedom of religion, access to justice, and property rights for women	14	85
	Social protection	To what extent does a formal social safety net provide protection to the general population from economic insecurity in the event of job loss or disability?	20	34
	Environmental performance	How well countries perform in environmental health and ecosystem vitality	25	37

	FDI regulatory restrictiveness	Foreign equity restrictions, screening and prior approval requirements, rules for key personnel, and other restrictions on the operation of foreign enterprises	31	37
	Physician density	The number of medical doctors (physicians) per 10,000 people	59	60
Items in which Singapore ranks high	Sanitation	The percentage of the population using basic sanitation services	14	1
	Brain gain	To what extent does your country attract talented people from abroad?	61	1
	Financial globalisation	Comparison based on foreign direct investment, portfolio investment, international debt, international reserves, and international income payments	43	3
	Brain retention	To what extent does your country retain talented people?	40	4
	Social mobility	In your country, to what extent do individuals have the opportunity to improve their economic situation through their personal efforts regardless of the socioeconomic status of their parents?	17	6
	Tolerance of minorities	Discrimination and violence against minorities	14	7
	International students	The number of students from abroad studying in a given country as a percentage of the total tertiary enrollment in that country	46	7
	Migrant stock	The number of the migrant stock population above 25 years old as a percentage of the total population of the same age group	94	7
	Leadership opportunities for women	In your country, to what extent do companies provide women with the same opportunities as men to rise to positions of leadership?	115	7
	Tolerance of immigrants	Is the city or area where you live a good place or not a good place to live for immigrants from other countries?	71	16
	Gender parity in high-skilled jobs	The ratio of managers, professionals, or technicians and associate professionals who are female to those who are male	99	54
	Economic empowerment of women	The degree of gender equality with respect to legal rights in economic participation	85	68

Note: Excerpts from Items "Attract" and "Retain."
Source: *Global Talent Competitiveness Index 2022* (INSEAD).

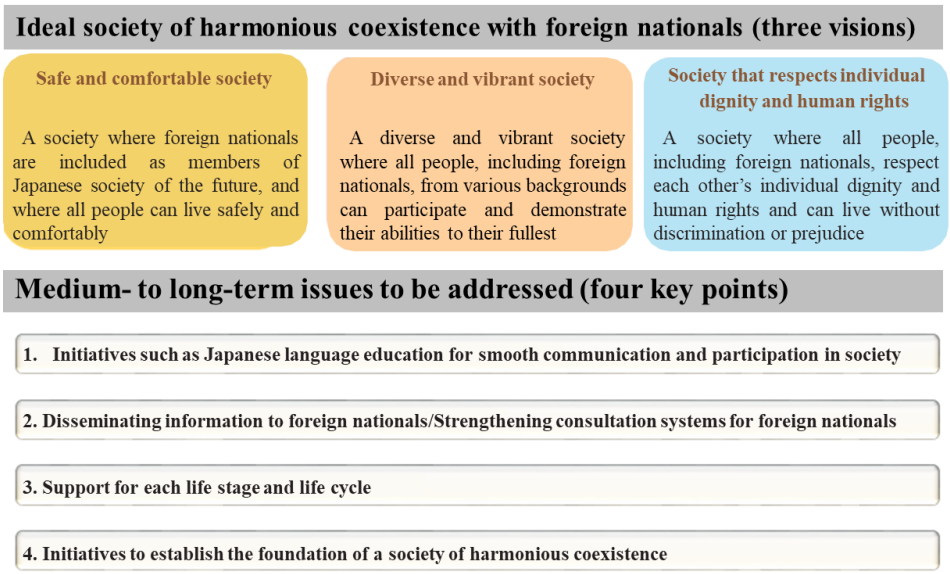
(4) Toward social inclusion of foreign nationals

As described above, although the numbers of highly skilled foreign professionals and foreign students who come to Japan are on an uptrend, it cannot be said that Japan is highly attractive for foreign nationals. There are many challenges for realizing social inclusiveness for foreign nationals.

With a view to realizing an inclusive society for foreign nationals, in June 2022, Roadmap for the Realization of a Society of Harmonious Coexistence with Foreign Nationals was announced at the Ministerial Council on Acceptance and Inclusion of Foreign Human Resources. The roadmap presents the visions for an ideal society of harmonious coexistence with foreign nationals (three visions), four

medium-to long-term priority issues to be addressed, and the initiatives to address the issues over the next five years (Figure II-2-5-21).

Figure II-2-5-21. Roadmap for the Realization of a Society of Harmonious Coexistence with Foreign Nationals



Major initiatives related to the key points

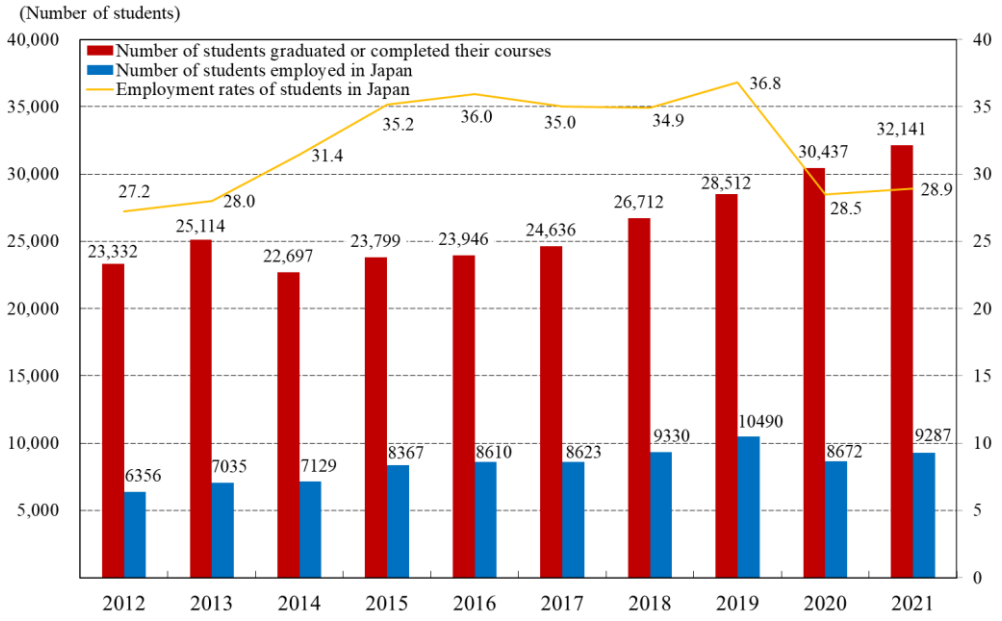
1. Initiatives such as Japanese language education for smooth communication and participation in society	**2. Disseminating information to foreign nationals/strengthening consultation systems for foreign nationals**
○ Steadfastly promotion of initiatives to the creation of a comprehensive system for enhancement of Japanese language education provided by prefectures and other entities and provision of support for Japanese language educational programs run jointly by municipalities and prefectures ○ Development of educational models by discipline in accordance with the curriculum and proficiency criteria specified in the Framework of Reference for the Japanese Language Education ○ Establishment of an environment for learning knowledge about Japanese social systems and other knowledge (open to those who are planning to come to Japan in the future) by creating and utilizing daily life orientation videos (provide basic information necessary for living in Japan, basic Japanese language education), etc. ○ Development and provision of ICT lesson materials for Japanese language for different daily occasions, etc. ○ Promotion of the environment of Japanese language education abroad for foreign nationals to learn smooth communication in Japanese before coming to Japan ○ Establishment of certification system for Japanese language institutions and Japanese language teacher qualification system	○ Formulation and publication of posting guidelines for the "Guidebook on Living and Working" and "A Daily Life Support Portal for Foreign Nationals" ○ Dissemination of information using Mynaportal, etc. ○ Promoting the establishment of one-stop consulting counters by reviewing the subsidies for preparations for an environment for the acceptance of foreign nationals ○ Initiatives for multi-language translation/interpretation technologies focused on developing practical simultaneous interpretation technologies and expanding the priority languages to include 15 languages ○ Joint consultation sessions by relevant organizations providing support to foreign nationals in local communities ○ Conducting training programs to promote plain Japanese, etc.
3. Support for each life stage and life cycle	**4. Initiatives to establish the foundation of a society of harmonious coexistence**
○ Launching of community-based programs that provide opportunities for parents and their children to meet up and consult about their concerns and problems encountered in parenting ○ Promotion of integrated management and identification of the school enrollment status of foreign children by collaborating the Basic Resident Registration system and the school-age children registration system ○ Promotion of efforts to set special admission quotas for foreign students for public high school entrance examinations and make necessary adjustments for foreign examinees ○ Introduction of Japanese language tutoring system to the high school curriculum ○ Dispatch of expert consultants and interpreters to the career service sections for foreign nationals at the Hello Work to provide consultation services and provide support for international students at career service centers for foreign nationals, etc. ○ Provision of job training for foreign residents based on their Japanese proficiency levels ○ Continuing and enhancement of publicizing and public relations concerning the pension system ○ Grasp of actual condition by "Basic Survey on Foreign Residents," etc.	○ Establishment of "Month for Raising Public Awareness of Harmonious Coexistence with Foreign Nationals" (tentative name), and implement of various events to raise public awareness, etc. ○ Further promotion and enhancement of education based on cross-cultural understanding and multicultural coexistence through school programs ○ Creation and publication of new statistical tables to analyze the living situations of foreign residents by nationality, status of residence, industry, etc., by utilizing the statistics on foreign residents in Japan, etc. ○ Preparation of statistics used to manage labor conditions and other labor aspects for foreign nationals and keep track of the labor transition to and from Japan, etc. ○ Trial project to support the efforts of private support groups to provide outreach support to foreign residents ○ Consideration of efforts towards construction of a centralized information management system required for residency management at the Immigration Services Agency ○ Integration of Individual Number Cards (My Number Card) and residence cards to improve convenience ○ Consideration of training support staff for foreign nationals and a certification system for highly specialized support staff, etc.

Source: *Roadmap for the Realization of a Society of Harmonious Coexistence with Foreign Nationals* (Decisions made by the Ministerial Council on Acceptance and Inclusion of Foreign Human Resources in June 2022).

Regarding the retention of foreign students, the revised Japan Revitalization Strategy 2016 (cabinet decision on June 2, 2016) set the goal of increasing the employment rate for foreign students in Japan from 30% to 50%, and efforts to achieve the goal are continuing under the Third Basic Plan for the Promotion of Education.

Currently, among foreign students who graduate from university or finish a graduate school course each year, the percentage of those who are employed in Japan (hereinafter the "domestic employment rate") is hovering between 30% to 40%. In particular, since 2020, when the COVID-19 pandemic broke out, while the number of students who graduated from university or finished a graduate school course has remained on an uptrend, the domestic employment rate has stood below 30% for two consecutive years (Figure II-2-5-22).

Figure II- 2-5-22. Changes in the number of foreign students who graduated or completed their courses at universities and graduate schools, the number of students employed in Japan, and employment rates of foreign students in Japan

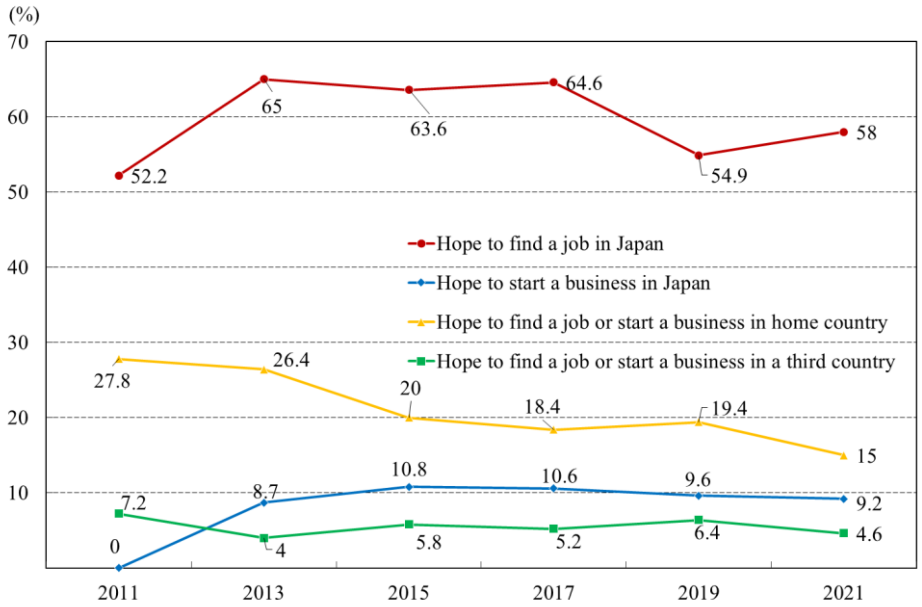


Note: The number of the number of foreign students who graduated or completed their courses and the employment rates of foreign students in Japan is the total number of such students who graduated or completed "Doctor's degree course," "Master's degree course," or "professional degree course," or "university (undergraduate) course." The number of "unknown" foreign students is excluded from the number of foreign students who graduated or completed their courses.

Source: *GAIKOKUJIN RYUUGAKUSEI SHINRO JOUKYOU GAKUI JUYO JYOUKYOU CHOUSA KEKKA* (data before FY2020), *2021NENDO GAIKOKUJIN RYUUGAKUSEI SHINRO JOUKYOU CHOUSA* (JASSO).

On the other hand, according to a questionnaire survey conducted with privately financed foreign students, regarding the career path after graduation, the largest percentage, around 58%, replied that they would like to find a job in Japan. Recently, although the percentage of those who would like to find a job in Japan has declined slightly because of the effects of the COVID-19 pandemic, it is higher than the percentage of those who would like to find a job or start a business in their home country and the percentage of those who would like to find a job or start a business in a third country (Figure II-2-5-23).

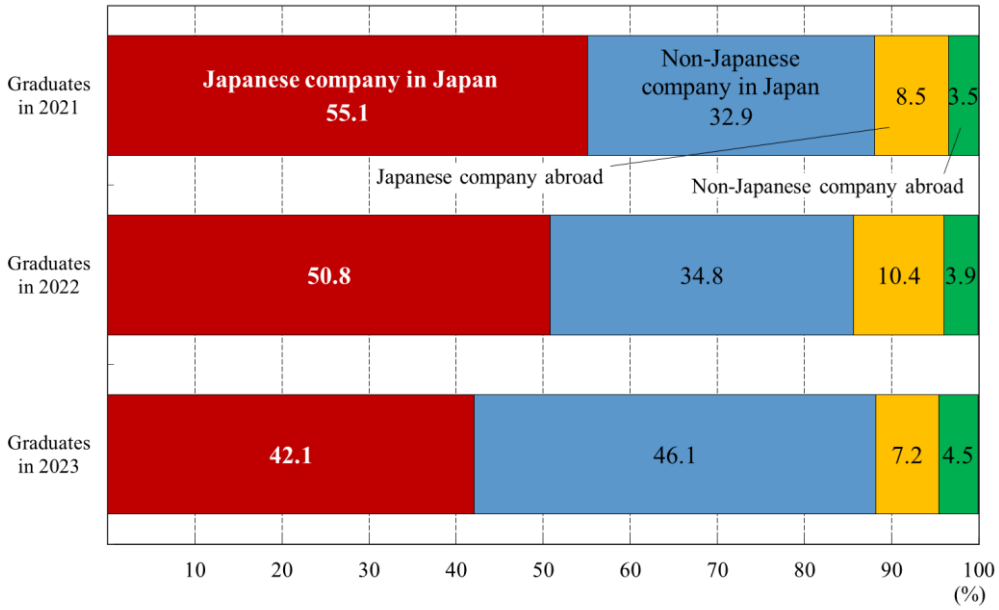
Figure II-2-5-23. Career path after graduation of graduates



Note: Multiple answers possible. The questionnaire item "Hope to start a business in Japan" was newly introduced in the FY2013 survey.
Source: *SHIHI GAIKOKUJIN RYUUGAKUSEI SEIKATSU JITTAI CHOUSA* (JASSO).

By company category, the largest percentage of foreign students would like to find a job with a non-Japanese company located in Japan (foreign company) and the percentage of such foreign students has increased in recent years in contrast to the decline in the percentage of foreign students who would like to find a job with a Japanese company located in Japan. This suggests the presence of foreign students who find Japan an attractive place to live but who do not find it attractive to work for a Japanese company (Figure II-2-5-24).

Figure II-2-5-24. Types of companies where foreign students would like to work



Source: *2023NENSOTSU GAIKOKUJIN RYUUGAKUSEI NO SHUUSHOKU KATSUDOU NI KANSURU CHOUSA (2022.8)* (respondents: 375 students; DISCO Inc.).

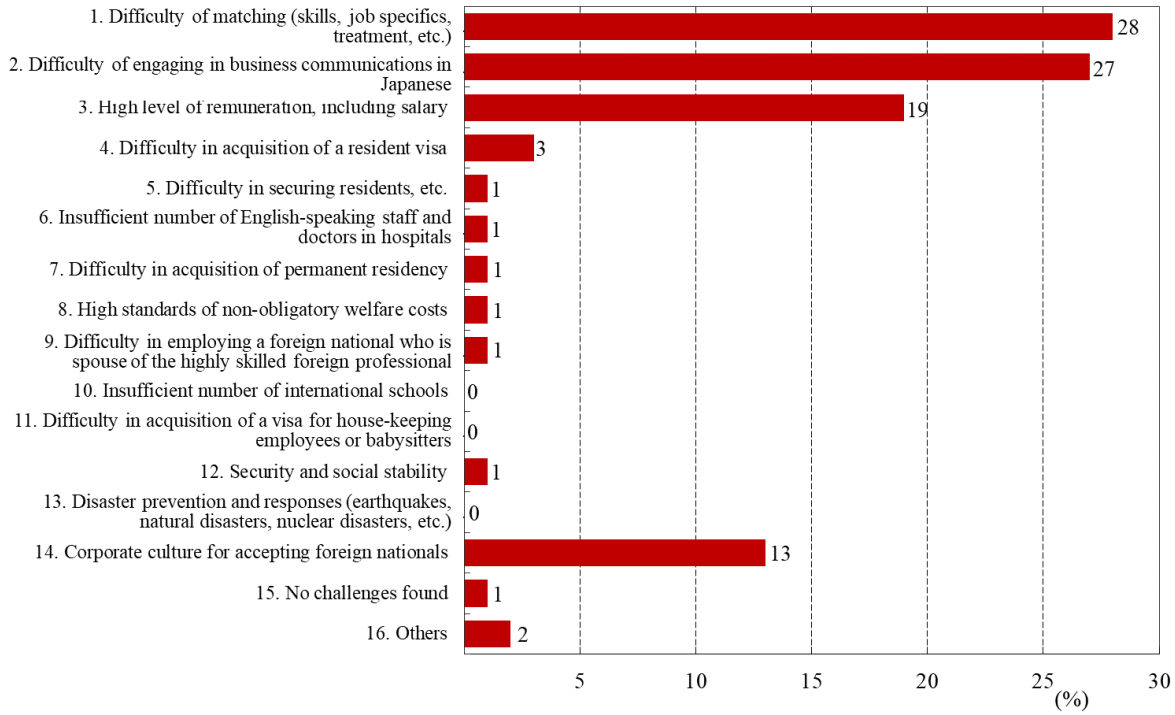
As described above, the domestic employment rate of foreign students is far lower compared with the percentage of foreign students who would like to find a job in Japan, so it is presumed that there are some foreign students who wish to find a job in Japan but are unable to fulfill the wish. Furthermore, according to a questionnaire survey with Japanese companies, the percentage of Japanese companies that feel the need to strategically increase the employment of highly skilled foreign professionals is as high as around 70%, but around 80% of those companies replied that they have been unable to secure the necessary talent.[268] Meanwhile, according to a questionnaire survey with Japanese companies operating overseas, the percentage of companies that replied that in the future, they will place emphasis on human capital investment in Japan.[269] In light of this mismatch between foreign students and companies, it was agreed that Japan should aim to increase the domestic employment rate of foreign students after graduation to 60% at the ninth meeting of a working group under the Council for the Creation of Future Education (April 2023).

In which areas does a mismatch between foreign students and Japanese companies occur? According to the questionnaire survey with Japanese companies, many companies cited the difficulty of matching (e.g., in terms of skills, job specifics, and treatment), the difficulty of engaging in business communications in Japanese, and the high level of remuneration, including salary, as challenges that they face when recruiting highly skilled foreign professionals. To address those challenges, it is

[268] Nomura Research Institute India, "Survey Report on the Situations of Japanese and Foreign Companies toward Promoting Globalization of Japan (FY2022)."
[269] Nomura Research Institute Singapore, "Questionnaire Survey on Japanese Companies' Overseas Operations and Challenges (FY2022)."

extremely important for foreign students and companies to deepen mutual understanding and to flexibly adapt to changes (Figure II-2-5-25).

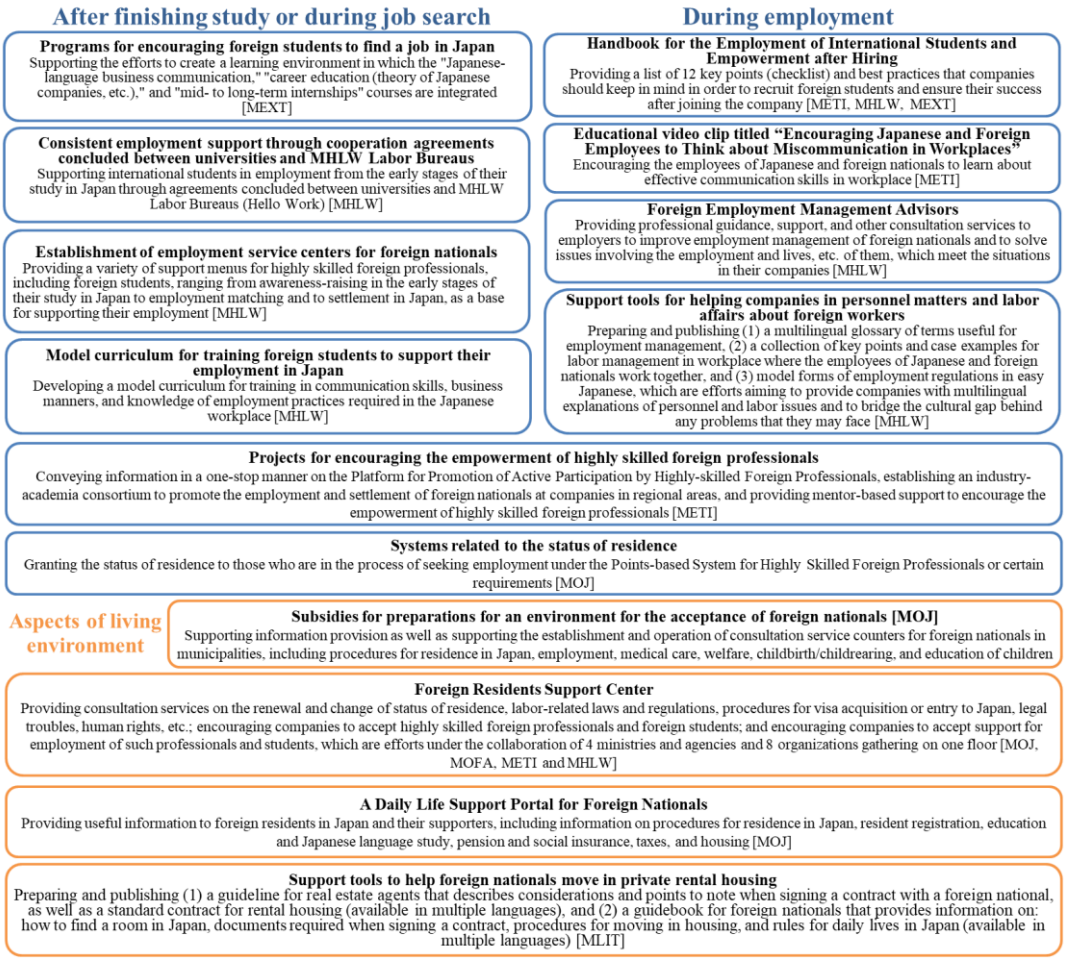
Figure II-2-5-25. Challenges in recruiting highly skilled foreign professionals in Japan



Note: The number of respondent companies was 183.
Source: *WAGAKUNI NO GUROOBARUKA SOKUSHIN NO TAME NO NIHONKIGYOU OYOBI GAIKOKUKIGYOU NO JITTAI CHOUSA HOUKOKUSHO (2022NENDO)* (Nomura Research Institute Consulting and Solutions India).

Regarding the difficulty of matching (e.g., in terms of skills, job specifics, and treatment) and the difficulty of engaging in business communications in Japanese, increasing foreign students' understanding of Japanese companies' employment practices and working arrangements is expected to reduce the mismatch during the job-hunting period. Currently, through collaboration between the government, universities, companies and local governments, measures to help foreign students find a job in Japan are being implemented in various phases from the period before they start to study to the period after they have started to do so. Specifically, universities are collaborating with local governments and industries to support activities to create an environment to enable foreign students to acquire a set of skills necessary for finding a job in Japan (e.g., Japanese-language business communication, career education, and internship) and strengthen consistent support for highly skilled foreign professionals in the processes from domestic employment to settlement. Universities are also collaborating with the Hello Work employment security offices to implement integrated employment support measures from the early period of foreign students' stay in Japan (Figure II-2-5-26).

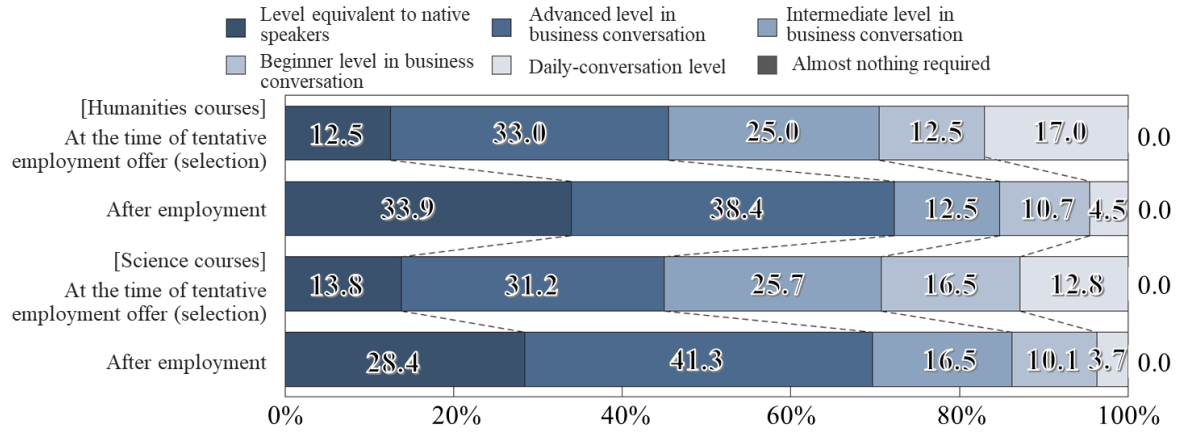
Figure II-2-5-26. Main measures for encouraging foreign students to settle in Japan



Source: Reference Material 2 used at the 9th meeting of the Council for the Creation of Future Education's working group.

It should be noted that, while foreign students need to make efforts to improve their Japanese-language proficiency, there is a survey finding indicating the presence of a difference between the levels of proficiency required of foreign students by Japanese companies at the time of recruitment and after the students have started working. Given that in Japan, students start job hunting activity more than one year before graduation, the survey finding suggests the possibility that there is a gap between companies' expectations and the reality regarding the improvement in Japanese-language proficiency that newly hired foreign students make before starting to work (Figure II-2-5-27).

Figure II-2-5-27. Levels of communication in Japanese required to foreign students at the time of tentative employment offer (selection) and after employment



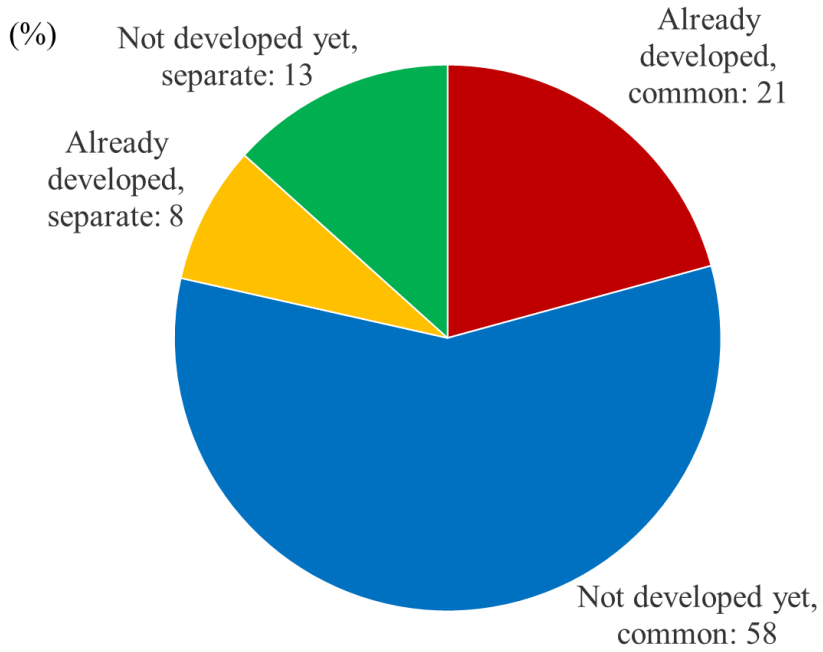
Level equivalent to native speakers = Sufficient communication skills in Japanese for any business situations
Advanced level in business conversation = Appropriate communication skills in Japanese for a wide range of business situations
Intermediate level in business conversation = Adequate communication skills in Japanese in limited business situations
Beginner level in business conversation = Certain level of communication skills in Japanese in limited business situations
Daily-conversation level = Minimum communication skills in Japanese in limited business situations
Almost nothing required = Little or no business communication skills in Japanese

Note: The number of respondent companies was 453.
Source: Excerpts from *GAIKOKUJIN RYUUGAKUSEI/KODO GAIKOKUJINZAI NO SAIYOU NI KANSURU KIGYO CHOUSA (2022.12)* (DISCO Inc.).

It is urgent to develop companies' institutional preparedness to accept foreign workers at the same time as providing support for foreign students. Japan's unique employment practices and pay systems may pose problems for highly skilled foreign professionals when considering working for a Japanese company. According to a survey conducted with Japanese companies, the percentage of companies that replied that they had already developed preparedness for the employment of foreign workers in terms of the pay system and employee treatment is only around 30% (Figure II-2-5-28). This suggests the possibility that most Japanese companies have not yet started to develop preparedness in terms of employee evaluation and treatment or do not feel the need to do so. Taking account of employer-side problems like this, in 2020, METI formulated a handbook containing a checklist and a collection of best practices related to recruitment and selection suited to the diversity of students and flexible personnel training and treatment after selection[270] in order to change companies' mindsets regarding the employment of foreign students by promoting widespread awareness about examples of excellent practice.

[270] Ernst & Young ShinNihon LLC, "Survey on Promotion of Employment of Foreign Students in Japan" (February 2020).

Figure II-2-5-28. Status of employee evaluation and treatment developed



Note: The number of respondent companies was 135. Regarding the response options, for example, the option "Already developed, common" refers to "The given company has developed, within the past five years, a pay system and employment treatment in view of hiring foreign nationals, and these schemes are applied to the employees of Japanese nationals and foreign nationals in a common manner." The option "Non developed yet, separate" refers to "The given company has not developed, within the past five years, a pay system or employment treatment in view of hiring foreign nationals, and it provides the employees of Japanese nationals and foreign nationals with a different pay system and employment treatment in a separate manner."

Source: *WAGAKUNI NO GUROOBARUKA SOKUSHIN NO TAME NO NIHONKIGYOU OYOBI GAIKOKUKIGYOU NO JITTAI CHOUSA HOKOKUSHO (2022NENDO)* (Nomura Research Institute Consulting and Solutions India).

3. Increasing inward foreign direct investments

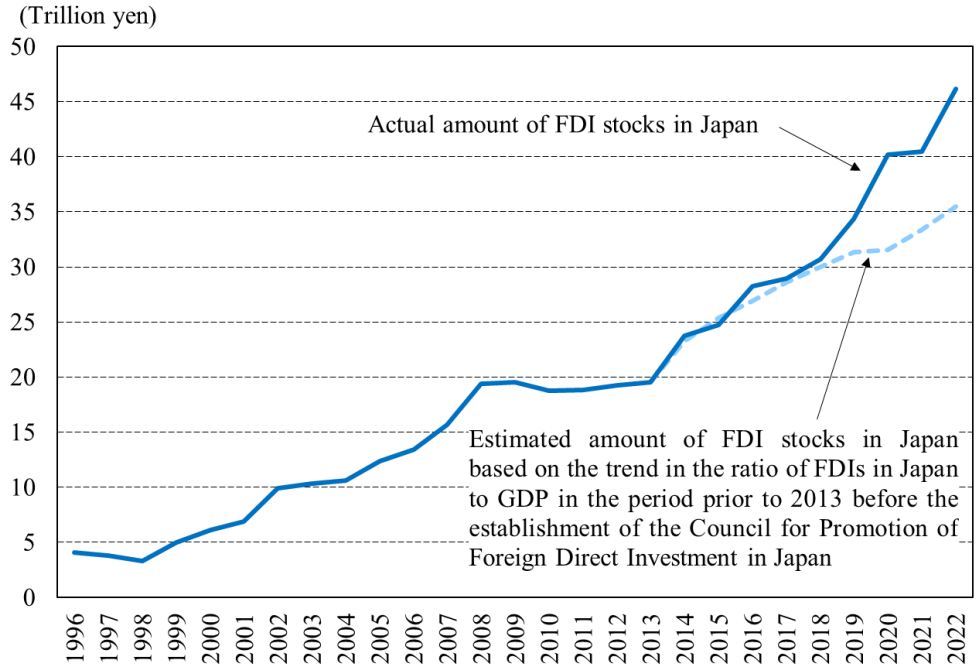
Foreign direct investments in Japan contribute to the enhancement of the growth potential of the entire Japanese economy and the revitalization of regional economies by creating innovations and helping regions incorporate the vitality of overseas economies into their own economies through the infusion of highly skilled talent, advanced technologies, and abundant funds. In particular, as Japan's population is shrinking, it is essential to boldly incorporate the vitality of overseas economies into the Japanese economy by leveraging foreign direct investments in Japan in order to overcome the population shrinkage and achieve strong growth.

In 2013, the government set the key performance indicator (KPI) of doubling the amount of stocks of foreign direct investments (FDIs) in Japan to 35 trillion yen by 2020, and toward achieving that goal, relevant ministries and agencies, under the leadership of the Council for Promotion of Foreign Direct Investment in Japan, cooperated in promoting initiatives to increase FDIs in Japan, such as identifying and inviting companies interested in investment, improving a business environment and living environment for foreign nationals working in Japan and providing opportunities for matching with Japanese companies. As a result of those initiatives, the amount of FDI stocks in Japan, which remained

flat in the latter half of the 2000s and later, continued to increase from 2014 onwards, amounting to 39.7 trillion yen as of the end of December 2020 (on a finalized basis), achieving the abovementioned KPI.

However, as an increase in inward FDIs is proportional to an increase in the size of the economy, the increase in the amount of FDI stocks in Japan may not necessarily have resulted from the government's measures to promote inward FDIs. Therefore, we examined whether or not the amount of FDI stocks in Japan increased at an accelerated pace because of the measures to promote such investments in 2013 and later, using a method similar the one used by Hoshi (2018)[271] (for the details of the analysis, see Note 8), the results of which are shown by Figure II-2-5-29. According to this analysis, the amount of FDI stocks in Japan in 2014 and later—that is, after the measures to promote foreign direct investments in Japan entered the implementation phase—was significantly larger than the estimated amount of inward FDI stocks based on the trend in the ratio of inward FDIs to nominal GDP in the period prior to 2013, before the implementation phase of those measures. This implies that the promotion measures implemented in and after 2013 were effective in increasing FDI stocks in Japan.

Figure II-2-5-29. Changes in the amount of FDI stocks in Japan



Note: METI conducted a regression analysis using: the ratio of FDIs in Japan to nominal GDP as a dependent variable and also using a trend term α, which is 1 in 1996 and increases by 1 each year, a dummy variable β, which takes 1 if the target year is 2014 or later, and a interaction term α*β as independent variables. The trend between 1996 and 2013 is shown by the coefficient of α. The trend between 2014 and 2022 is shown by the sum of the coefficient of α and the coefficient of α*β. The dotted line represents the amount of FDI stocks in Japan estimated by using an actual nominal GDP based on the preliminary calculation of the ratio of FDIs in Japan to nominal GDP in and after 2014 with the assumption of a trend after 2014 as α.

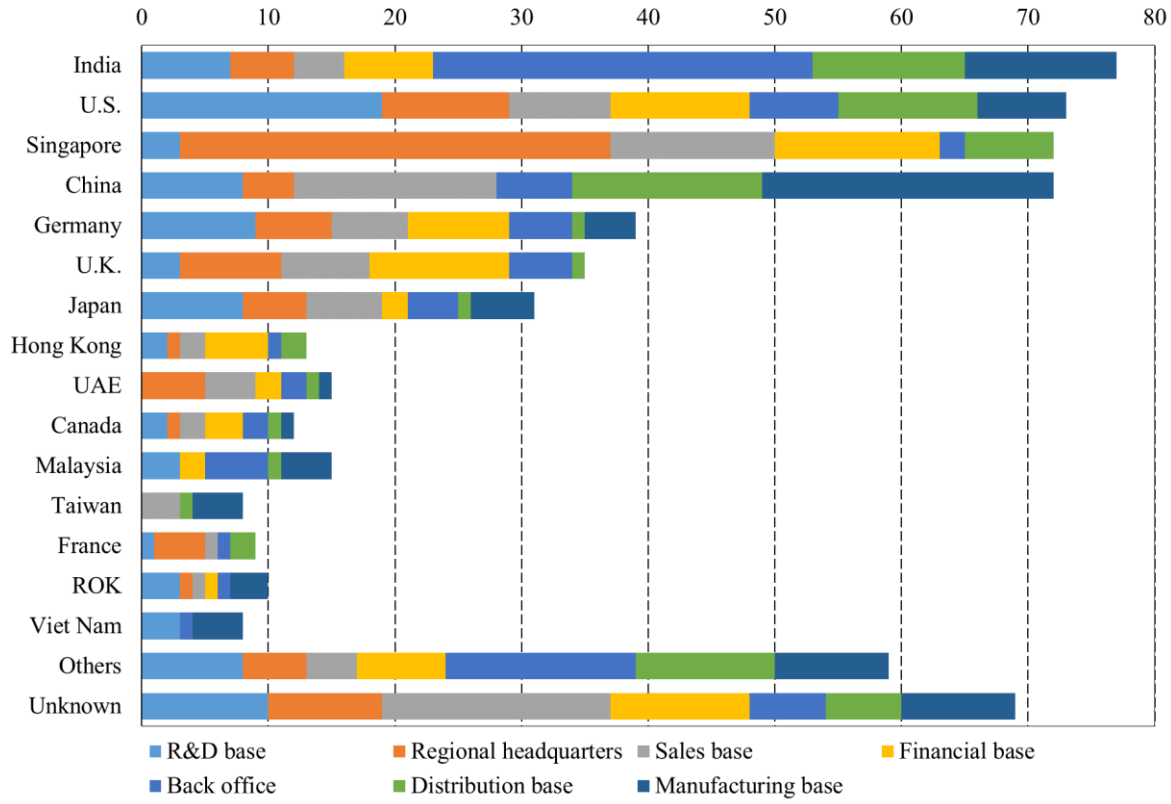
Source: *Balance of Payments Related Statistics* (Bank of Japan), *National Accounts of Japan (Estimates of GDP)* (Cabinet Office).

[271] HOSHI, T. (2018), "Has Abenomics Succeeded in Raising Japan's Inward Foreign Direct Investment?," Asian Economic Policy Review (2018) 13, pp.149–168.

On the other hand, the ratio of FDIs in Japan to GDP as of the end of December 2020 was 7.4%, a level that was markedly low by international standards, specifically when compared with the average of 56.4% (2019) among the OECD member countries. In light of that fact, in order to realize sustainable growth, it will continue to be important to attract investments, talent, and technologies from around the world and it is necessary to continue efforts to develop an environment to do that. Therefore, in June 2021, the government set a new KPI, doubling the amount of FDI stocks in Japan to 80 trillion yen by 2030 and raising the ratio of FDI stocks to GDP to 12%, and has been implementing measures to achieve the new KPI under the Medium and Long-term Strategy for Promoting Foreign Direct Investment in Japan (Strategy for Promoting Foreign Direct Investment in Japan). As a result of those measures, the amount of FDI stocks in Japan came to 40.5 trillion yen as of the end of 2021 and 46.2 trillion yen as of the end of 2022. Furthermore, in April 2023, the Council for Promotion of Foreign Direct Investment in Japan worked out the Action Plan for Attracting Human and Financial Resources from Overseas, which is comprised of the following five pillars: "Stimulating investment in strategic sectors and restructuring global supply chains in light of the changes in the international environment"; "Strategies for the formation of Asia's largest startup hub"; "Attracting highly skilled foreign professionals, and improving the system for establishing a center for global knowledge exchange"; "Improving the business and living environment to attract human resources and investment from overseas"; "Fundamentally strengthening all-Japan's efforts for the mechanism to attract investment and to follow-up this Action Plan, and globally disseminating these undertakings." The Action Plan calls for further efforts to increase FDIs, stating that Japan aims to surpass the existing goal of increasing the amount of FDI stocks in Japan to 80 trillion yen by 2030 and to increase the amount to 100 trillion yen at an early time.

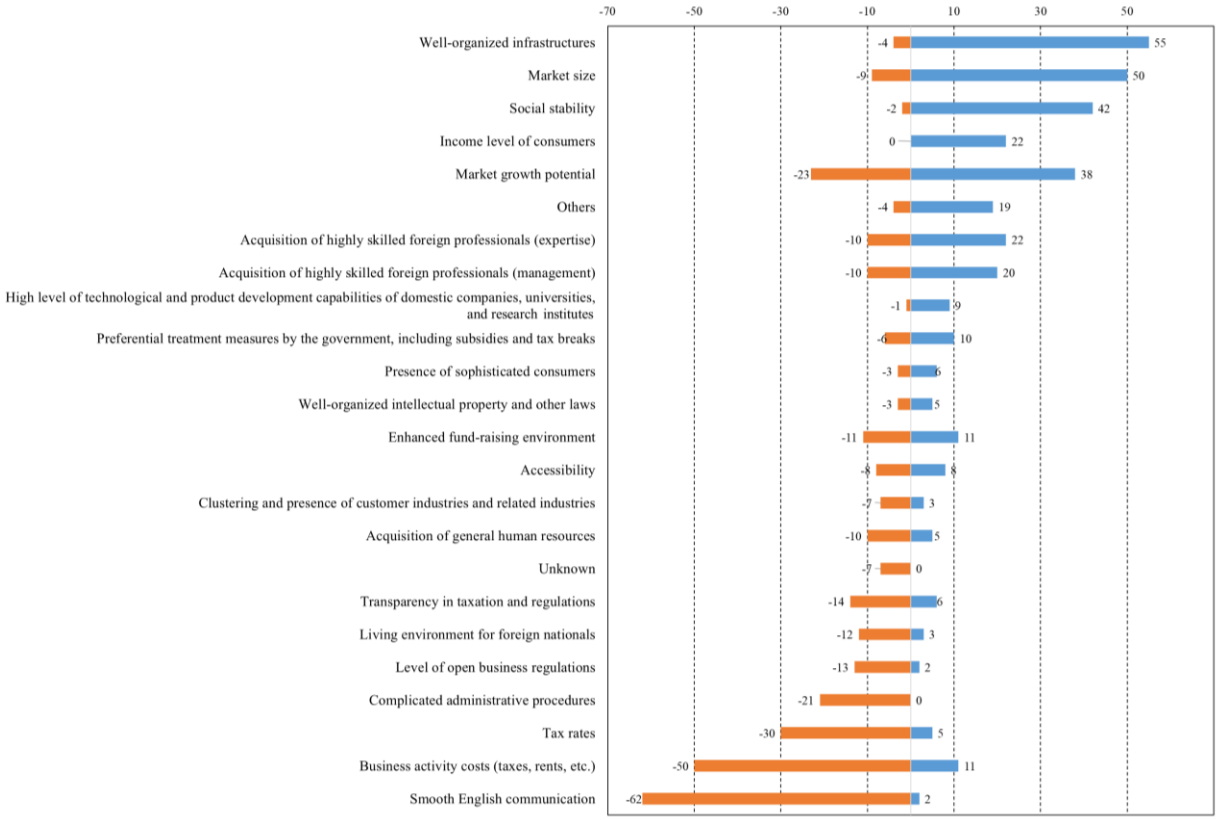
To promote a further increase in FDIs in Japan, it is important to overcome the challenges and proceed with "internal internationalization" while taking advantage of the country's strengths. Figure II-2-5-30, which shows the countries and regions that foreign companies consider to be the most attractive as business bases, indicates that they rate Japan high as a research and development base. In addition, according to Figure II-2-5-31, which shows a comparison between developed countries in terms of attractiveness of the business environment, while Japan has an advantage in terms of infrastructure, market size, social stability, and consumers' income level, it faces challenges in terms of English-language proficiency, business activity cost, and tax rates. It is important for the government to promote "internal internationalization," including by addressing those challenges.

Figure II-2-5-30. Countries and regions that foreign companies consider to be the most attractive as business bases



Source: *WAGAKUNI NO GUROOBARUKA SOKUSHIN NO TAME NO NIHONKIGYOU OYOBI GAIKOKUKIGYOU NO JITTAI CHOUSA HOKOKUSHO (2022NENDO)* (Nomura Research Institute Consulting and Solutions India).

Figure II-2-5-31. Strong points and weak points of business environments in Japan in comparison with other developed countries



Source: *WAGAKUNI NO GUROOBARUKA SOKUSHIN NO TAME NO NIHONKIGYOU OYOBI GAIKOKUKIGYOU NO JITTAI CHOUSA HOKOKUSHO (2022NENDO)* (Nomura Research Institute Consulting and Solutions India).