Section 2 Trade in Goods

Over the past 30 years, the shares of developed countries in global exports of goods have declined across the board, with Japan's share falling particularly steeply. By item, Japan's global share has fallen with respect to most major export items. Japanese manufacturing industries are "niche tops" regarding differentiated specific products, parts and raw materials and have a competitive edge in terms of technological expertise and clustering. However, the advantage has not led to an improvement in the terms of trade for the whole of Japan. Japan's trade structure is characterized by a relative lack of change in export items over the past 30 years. This provides a contrast to the dynamic change in China's export items, which was described in Part II, Chapter 2, Section 4, for example. It is necessary to enhance value added provided globally by Japan by developing new export products, fostering new exporting companies, and cultivating new export markets through the creation of high value added due to innovation.

This section will analyze the structure of Japan's goods exports and consider the prospects for creating opportunities for exporting high value added through innovation.

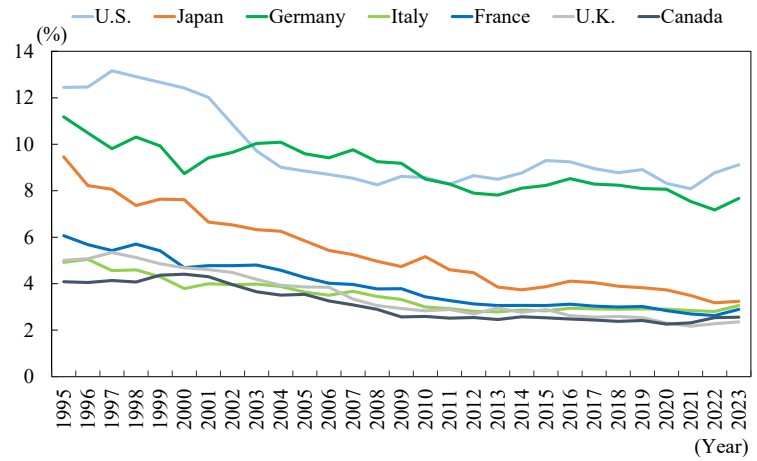
1. Current status of Japan's goods exports

(1) Current status of Japan's goods exports

(A) Japan's goods exports in terms of global share

As described in Part II, Chapter 3, Section 1, Japan's goods exports have not grown in terms of volume. This presumably reflects not only the stagnancy of global trade but also a decline in Japan's share in global exports. Indeed, Japan's export share, which was slightly below 10% in the middle of the 1990s, has recently fallen to slightly below 4% (Figure II-3-2-1). The long-term decline in export share is a phenomenon observed universally across developed countries, including the United States and Germany. However, Japan's case is distinctive in that the margin of decline is large compared with other countries and also that in the period since 2022, when the shares of many developed countries hit bottom, the margin of rise for Japan's exports has been small.

Figure II-3-2-1. Shares of developed countries in world exports

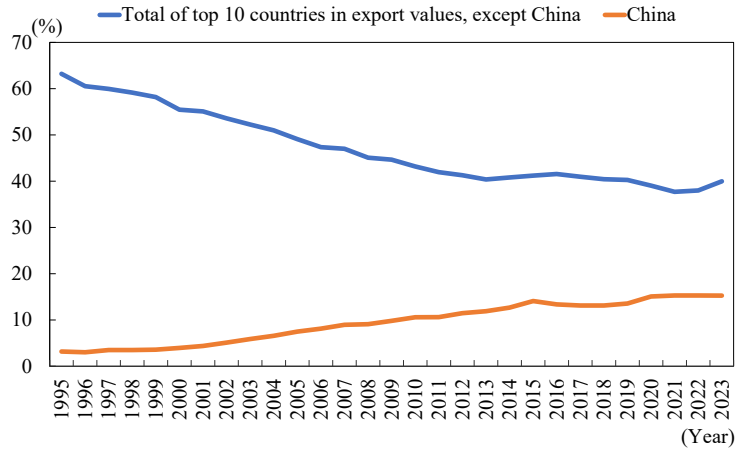


Note: The data is calculated based on export values in US dollars.

Source: Comtrade (UN).

One factor of the medium- and long-term decline in the export shares of developed countries is the expanded presence of China in global trade. Since around the time of its accession to the WTO in 2001, China has increased its participation in global trade, with its export share rising by around 10 percentage points over the past 25 years or so (Figure II-3-2-2). It should be noted that recently, China's share has remained flat because of the effects of the U.S.-China trade conflict and the economic situation in China, providing a contrast to the recent halt in the downtrend of shares of developed countries excluding Japan.

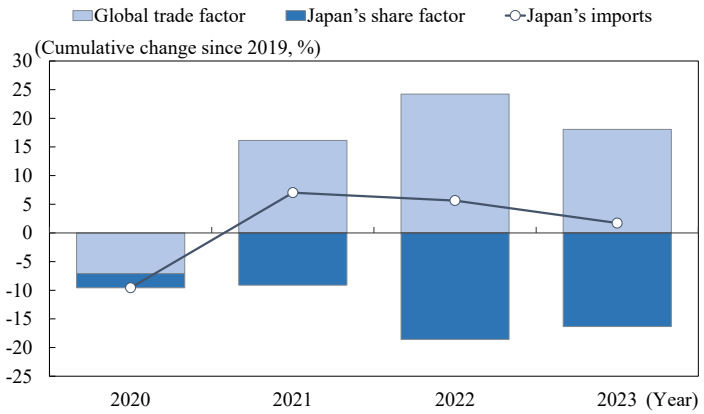
Figure II-3-2-2. China's share in world exports



Source: Comtrade (UN).

If we break down the dollar-denominated value of nominal exports into the global trade factor (nominal global exports, in terms of dollar-denominated value) and the share factor in order to look at the effects of the decline in Japan's export share on its overall exports, we can see that the decline in Japan's export share made a greater contribution to the recent lack of growth in exports than the global trade factor (Figure II-3-2-3). Compared with 2019, nominal exports increased only slightly in 2023, with the share factor offsetting the growth due to the global factor.

Figure II-3-2-3. Decomposition of exports into global trade factor and share factor

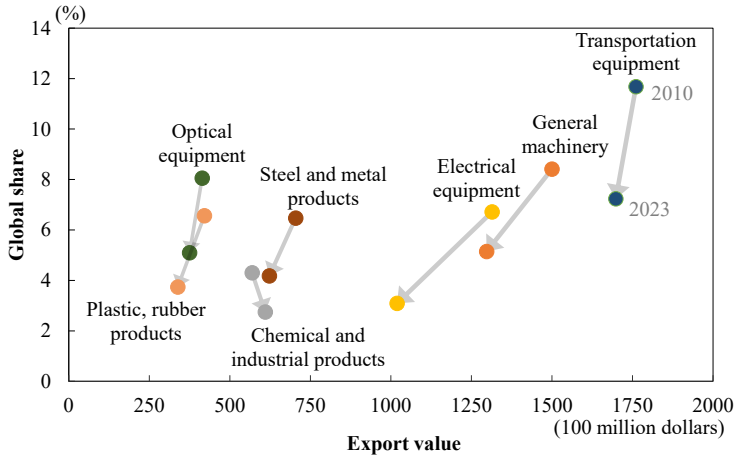


Note: The data is calculated by taking the log-difference of both sides of the equation "nominal exports = global nominal exports × Japan's share in global export" based on this relationship.

Source: Comtrade (UN).

The decline in Japan's export share is not particular to specific goods but common across a broad range of goods (Figure II-3-2-4). In particular, the export share fell sharply with respect to the machinery category.

Figure II-3-2-4. Changes in export values and global shares by type of goods

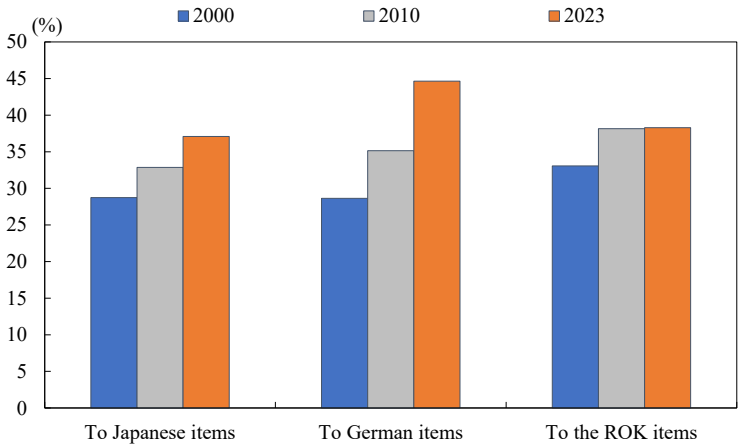


Source: Comtrade (UN).

(B) Background to the decline in export share

As China expands its export share, it is also catching up with developed countries. If we look at the similarities between export items of Japan, Germany, the ROK, and China in terms of the Export Similarity Index,[296] we can see that recently, the similarity of Chinese export items to Japanese and German ones has recently increased substantially (Figure II-3-2-5).

Figure II-3-2-5. Similarities between export items of China and other countries



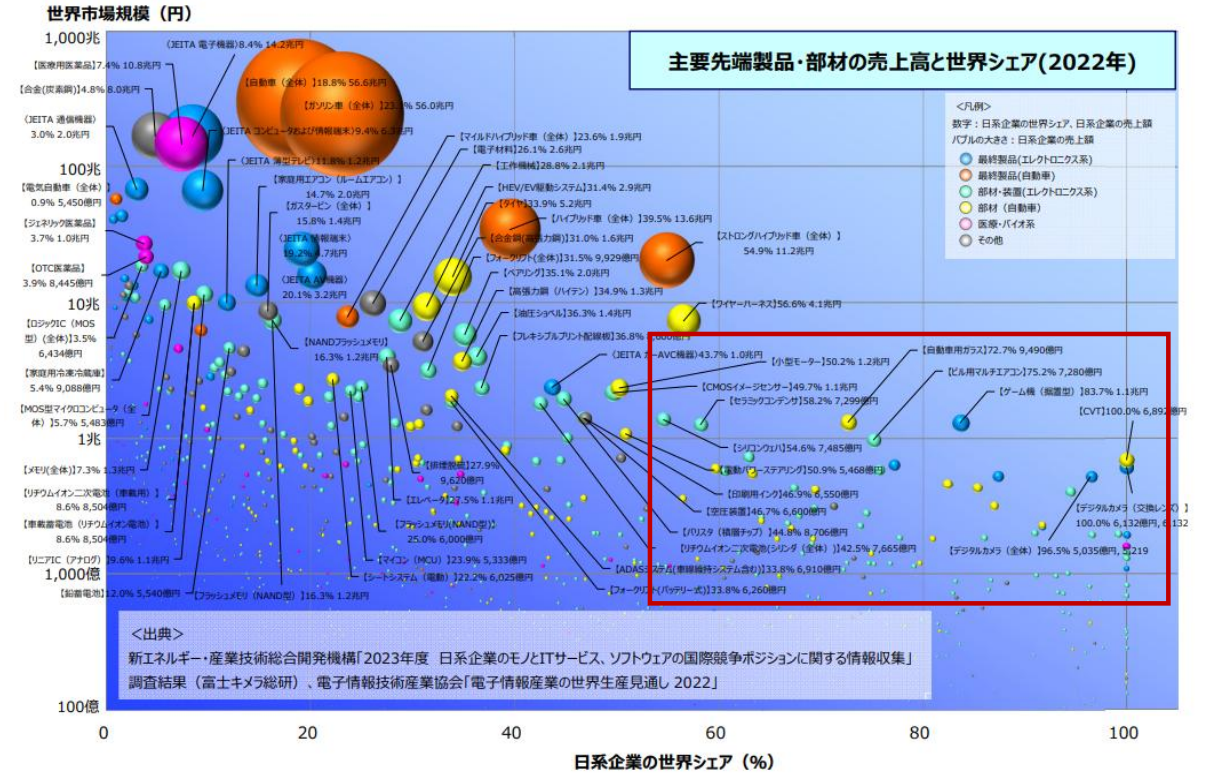
Source: Comtrade (UN).

[296] This is an indicator of similarity between export items of a pair of countries. The closer to 100 the value of the index is, the higher the similarity in the export structure is. The value of the index is obtained through the following processes: (i) calculate the share of each export item in the total export value for each country; and (ii) compare the shares calculated for each country item by item and add up the smaller of the shares thus compared.

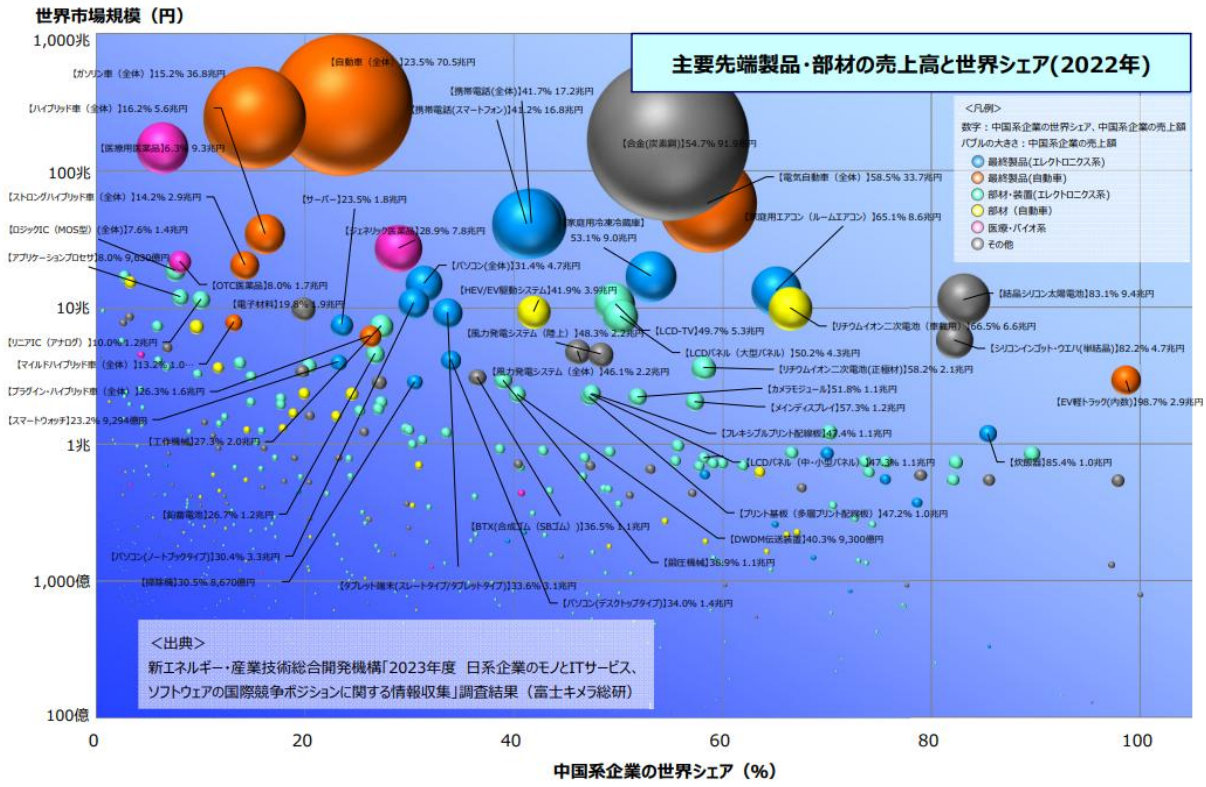
Schaede pointed out that Japan responded to China's and other emerging countries' catching up by shifting to upstream processes requiring complex products and technologies.[297] A report by NEDO on sales and global shares concerning major advanced products, parts, and materials led Schaede to pay attention to an increased number of small sectors, particularly parts and materials sectors, where Japan has a large global share, which are represented by small bubbles in the figure below (Figure II-3-2-6). The figure means that Japanese companies have become niche tops regarding many products in upstream industrial sectors. This trend is unique to Japan: for most other countries, including the United States, the EU, the ROK, Taiwan, and China, the lower-right area of the bubble chart is vacant. Germany, which has an edge in the chemicals and some other industries, is the only country where a trend similar to the one in Japan is observed, according to Schaede.

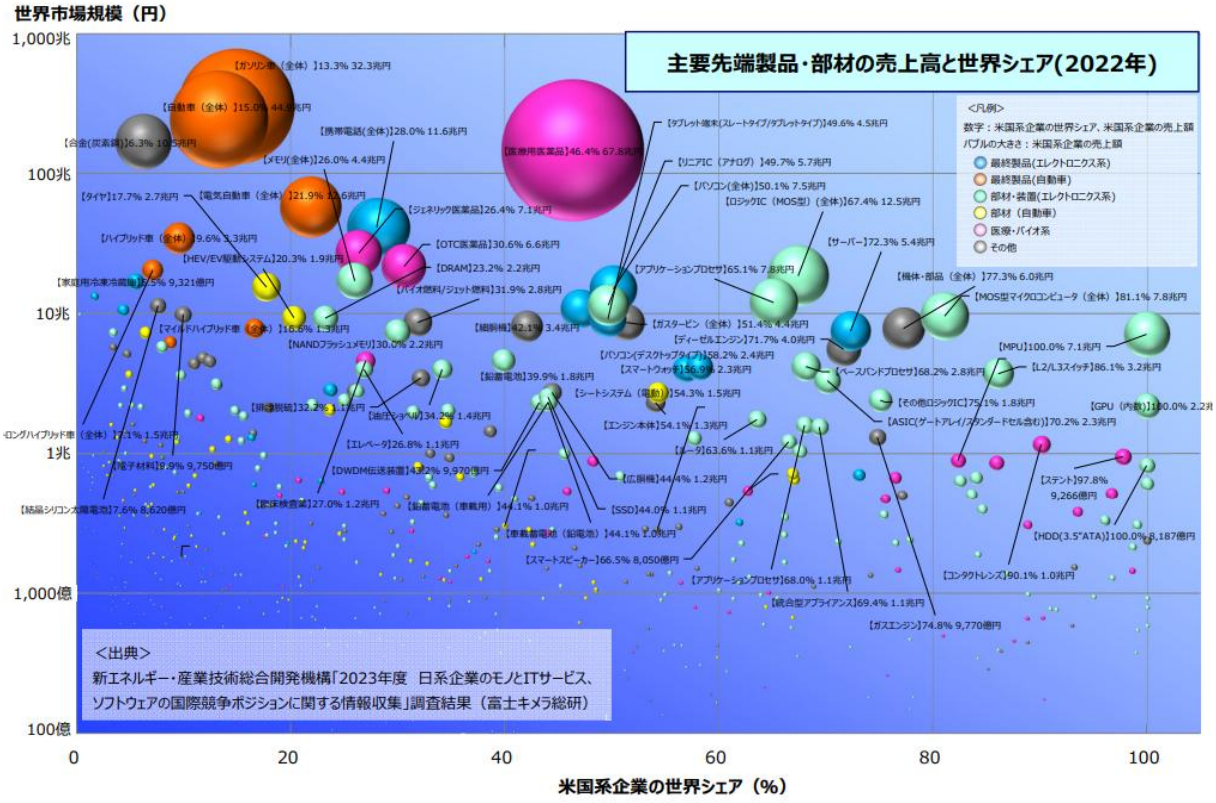
The presence of many niche tops is evidence of the high level of Japan's technological prowess and indicates that Japanese companies have strategically taken advantage of their strengths to shift to products with higher value added, located in the upward area along the smile curve. Even so, it is difficult to secure export volume on a broad front through a niche top strategy alone because the market scale tends to be limited for niche products, so the Japanese industry as a whole may be unable to maintain the scale of exports and competitiveness.

Figure II-3-2-6. Sales and global shares of major advanced products, parts, and materials



297 Schaede (2024)


世界市場規模（円）
主要先端製品・部材の売上高と世界シェア(2022年)
<凡例>
数字：中国系企業の世界シェア、中国系企業の売上額
バブルの大きさ：中国系企業の売上額
最終製品(エレクトロニクス系)
最終製品(自動車)
部材・装置(エレクトロニクス系)
部材（自動車）
医療・バイオ系
その他
1,000兆
100兆
10兆
1兆
1,000億
100億
0
20
40
60
80
100
中国系企業の世界シェア（%）
<出典>
新エネルギー・産業技術総合開発機構「2023年度 日系企業のモノとITサービス、ソフトウェアの国際競争ポジションに関する情報収集」調査結果（富士キメラ総研）


世界市場規模（円）
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<凡例>
数字：米国系企業の世界シェア、米国系企業の売上額
バブルの大きさ：米国系企業の売上額
最終製品(エレクトロニクス系)
最終製品(自動車)
部材・装置(エレクトロニクス系)
部材（自動車）
医療・バイオ系
その他
1,000兆
100兆
10兆
1兆
1,000億
100億
0
20
40
60
80
100
米国系企業の世界シェア（%）
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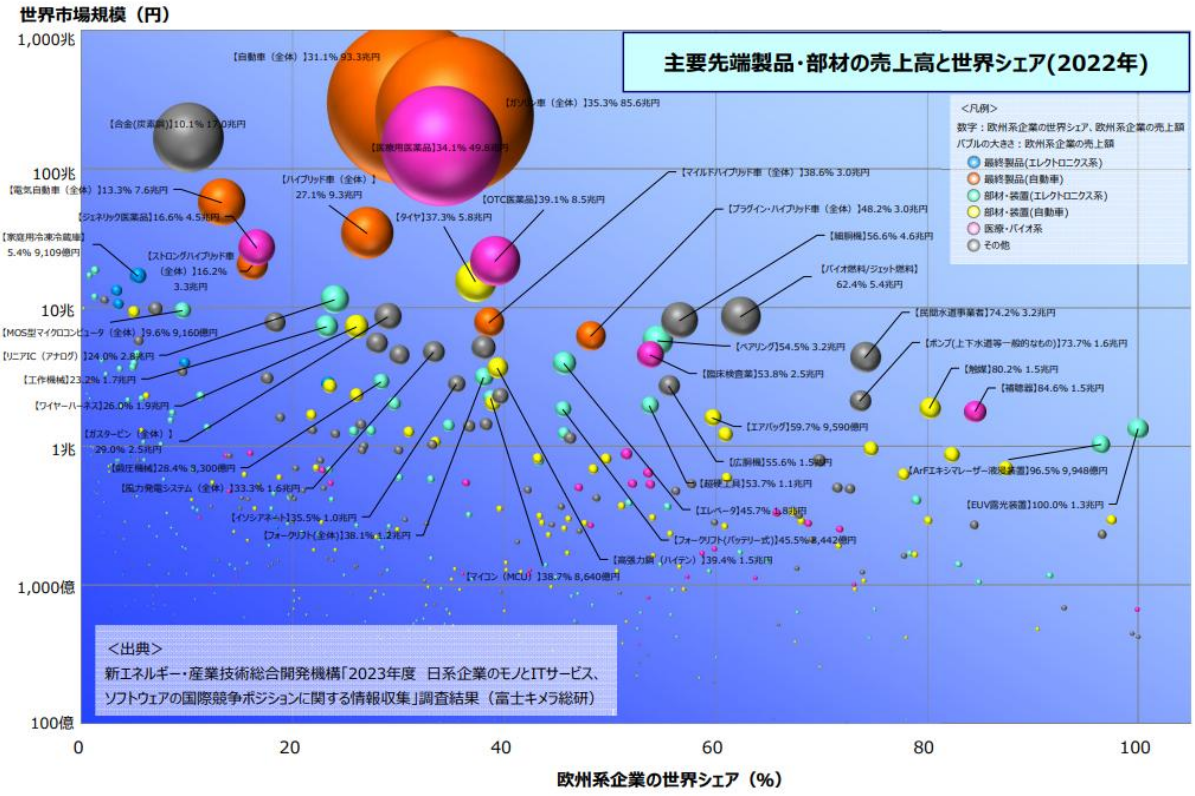
新エネルギー・産業技術総合開発機構「2023年度 日系企業のモノとITサービス、ソフトウェアの国際競争ポジションに関する情報収集」調査結果（富士キメラ総研）

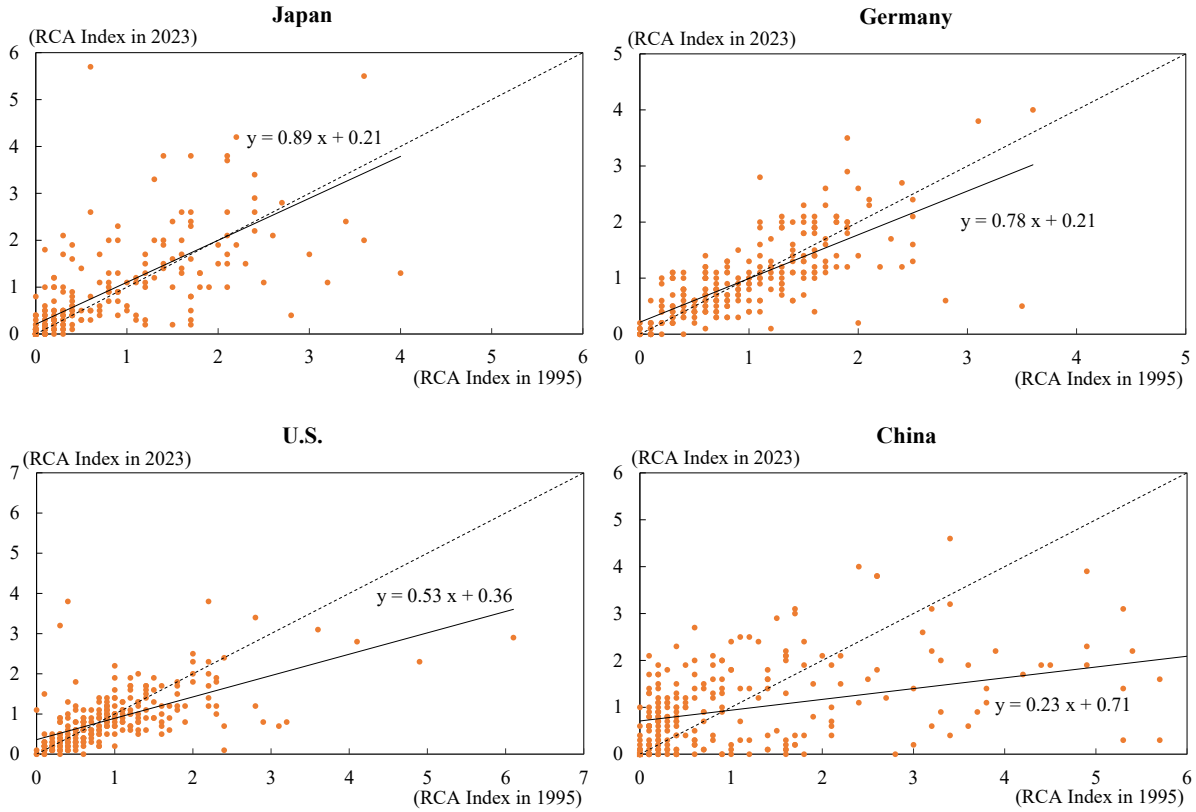


Source: *2023 NENDO NIKKEI KIGYOU NO MONO TO IT SAABISU, SOFUTOWEA NO KOKUSAI KYOUSOU POJISHON NI KANSURU JOUHOU SHUUSHUU* (NEDO).

We will analyze the creation of new export industries and products from the viewpoint of expanding the scale of exports. First, we will look at the status of industrial renewal as viewed from Japan's patterns of trade in terms of the Revealed Comparative Advantage (RCA) Index (hereinafter "the RCA index").[298] In Figure II-3-2-7, the horizontal axis represents the value of the RCA Index (RCA value) in 1995 and the vertical axis represents the value of the RCA Index in 2023, with the values plotted by type of goods. When there is no change between the patterns of trade in 1995 and 2023, plotted values form a straight line with a slant of 1 and an intercept of zero. On the other hand, when the regression line drawn has an intercept larger than zero and a slant smaller than 1, that indicates that the RCA value of an item that had a high RCA value in 1995 tends to be lower in 2023. When the slant is larger than 1, the RCA value of an item that had a high RCA value tends to rise further. A comparison across countries shows that the slant for Japan is the closest to 1 and also that on the whole, the relative relationships between the RCA values for the various types of goods did not change much. A similar trend can be observed with respect to Germany, while the small slants for China and the United States indicate that the trade structures of these two countries changed significantly.

[298] The RCA Index is calculated through the following formula: The RCA index for Country A = (the value of exports of a specific item from Country A / Total value of exports from Country A) / (the value of global exports of the specific product / the total value of global exports). When the RCA value for a certain country with respect to a certain item is higher than 1, it is considered to indicate that the country has a comparative advantage concerning the item. In short, the value of exports of the item from the country is high compared with the global average.

Figure II-3-2-7. Trade structures of countries seen from RCA Index



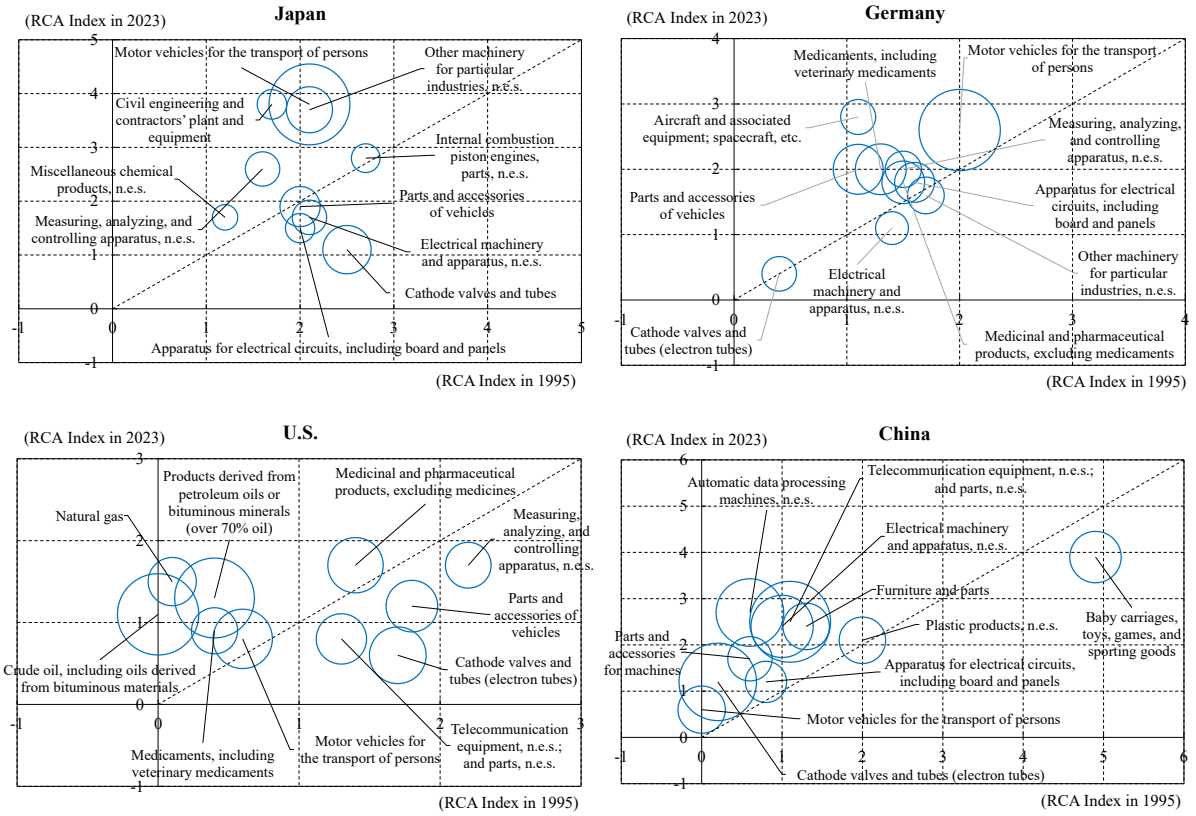
Note: The data is based on the SITC. In this figure, the dotted lines in the graphs represent the line defined by y = x (slant 1, y-intercept 0).

Source: UNCTADstat.

Regarding top export items in 2023 on a country-by-country basis, in 1995, the RCA value was already higher than 1 across almost all items in the cases of Japan and Germany. On the other hand, in the cases of the United States and China, for many of their major export items in 2023, the RCA value in 1995 was below or around 1. In other words, this indicates that these two countries have created new main export products over the past 30 years or so (Figure II-3-2-8).

A lack of change in the RCA value for a country indicates not only that its competitive industries have been maintained to some degree but also that it is at a disadvantage in terms of industrial renewal and innovation. Japan has obtained niche top status by maintaining its advantage in machinery industries for many years and also by shifting to upstream areas of the supply chain. That is evidence that Japanese companies have maintained competitiveness in terms of technological prowess and quality control. On the other hand, in countries where industrial renewal is brisk, new industries have emerged and the RCA values for former major industries have declined. Although change in the RCA value is not a necessary condition for expanding trade, one important implication of the above analysis is the possibility that industrial renewal in Japan has not been brisk.

Figure II-3-2-8. Changes in RCA values of top 10 export items by country



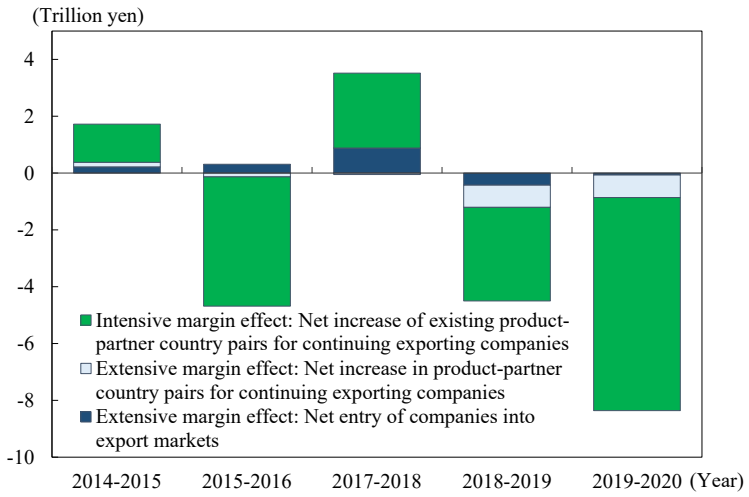
Note: The data is based on the SITC. The size of a bubble shows the size of export values as of 2023. As for Japan, export items up to the 11th rank are shown, excluding gold for non-currency purposes ranked 10th.

Source: UNCTADstat.

Next, we will review the possibility that Japan may have been unable to develop new export products, foster exporting companies, and cultivate new export markets from the viewpoint of the intensive and extensive margins of Japan's export activity. The intensive margin refers to trade conducted with the involvement of existing exporting companies, existing export items, and existing export destination countries, while the extensive margin refers to trade conducted with the involvement of either new exporting companies, new export items, or new export destination countries. According to an analysis by Ito et al., Japan's export activity has changed due to the intensive margin effect, while the contribution of the extensive margin effect is small[299] (Figure II-3-2-9).

[299] Ito et al. (2023)

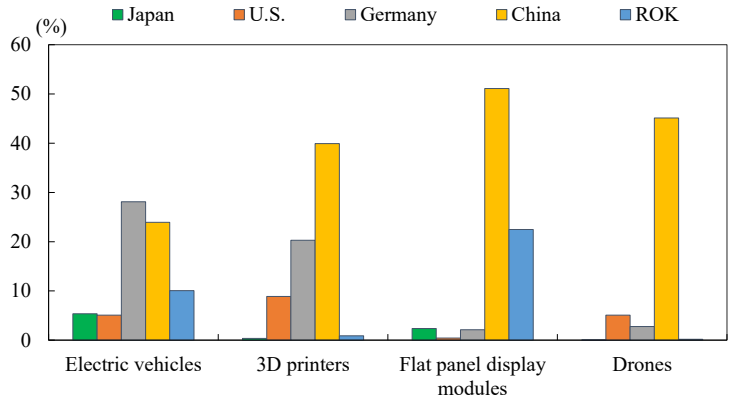
Figure II-3-2-9. Intensive and extensive margins of Japan's exports



Source: Ito et al. (2023).

As a symbolic example, if we look at Japan's export shares concerning major products among new products, defined as items to which new HS codes were assigned in 2017 or in 2022,[300] the share is low with respect to all those major products (Figure II-3-2-10).

Figure II-3-2-10. Trade shares of new products (2023)



Note: "Electric vehicles" refer to "passenger vehicles, etc. equipped solely with electric motors as their drive power source," and do not include hybrid vehicles.

Source: Comtrade (UN).

[300] According to Japan Customs, under the revision of HS2022, new HS codes were assigned to the following items: flours, meals and pellets of fish and other creatures, products containing tobacco or tobacco substitutes (e.g., electronic cigarettes), products of mixtures containing halogenated derivatives, machines for additive manufacturing (3D printers), flat panel display modules, electrical and electronical waste, unmanned aircraft (drones), and parts of aircraft. It should be noted that the new code for parts of aircraft is a replacement for the existing code for the same item. Japan Customs, Customs and Tariff Bureau, Ministry of Finance, "HS HINMOKU HYOU NO 2022 NEN KAISEI (HS2022) NO GAIYOU" (reference materials distributed at a briefing session on the revision of HS2022), February 4, 2022, https://www.customs.go.jp/zeikan/seido/classification/hs2022_shiryo.pdf.

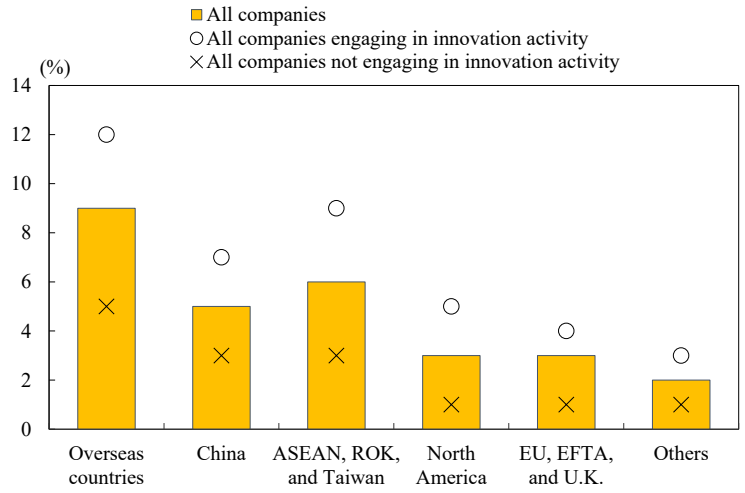
2. Points of argument toward expanding goods exports

Above, we looked at the downtrend in Japan's goods exports in dollar terms and in terms of global share. When considering ways of expanding goods exports in the future, increasing the extensive margin by creating new products and new exporting companies through innovation and high value added is a possible course of action to take. Here, we will study the possibility of expanding goods exports through innovation.

(1) Exports and innovation

Japanese companies' overseas business expansion is correlated with the presence or absence of innovation activity (Figure II-3-2-11). The percentage of companies that have achieved overseas business expansion among all companies is slightly under 10%. If companies are divided into a group engaging in innovation activity and a group not engaging in such activity, the overseas business expansion rate is around 12% in the innovation group and is only around 5% in the non-innovation group. A similar trend can be observed across countries/regions of business expansion. Regarding all countries/regions, the overseas business expansion rate is higher in the innovation group than in the non-innovation group.

Figure II-3-2-11. Presence or absence of innovation activity and state of overseas business expansion



Note: The vertical axis of this figure shows the percentage of companies in each company group that have expanded into the relevant region. "Innovation activity" refers to "activities aimed at introducing new or improved products or services to the market or those aimed at implementing new or improved processes for one or more business functions for internal use within the relevant company." Specifically, this includes research and development (including outsourcing), acquisition/leasing of tangible assets such as machinery, employee training and education activities, intellectual property-related activities, engineering/design/other creative work activities, marketing/brand equity activities, and software/database development. Companies conducting at least one of these activities are considered those engaging in innovation activity.

Source: *Report on the Japanese National Innovation Survey 2022* (National Institute of Science and Technology Policy).

Presumably, underlying the correlation between innovation and overseas business expansion is a two-way causal effect—that is, innovation promotes overseas expansion, and vice versa. The idea that innovation promotes overseas expansion has something in common with the argument of the new new trade theory that companies with higher productivity find it easier to enter the export market. The entry into the international market entails fixed costs, including transportation cost, tariffs, and the cost of compliance with regulations (e.g., cost of complying with local safety standards), and only companies that already have high productivity and earn sufficient profits in the domestic market are considered to be able to endure those costs. This theory has been corroborated by studies using corporate data from various countries, including the United States, Japan, the EU and China. A study using corporate data from Japan showed that the average labor productivity is higher among exporting companies than among non-exporting companies.[301]

However, here, it should be kept in mind that companies with high productivity do not necessarily engage in export activity. Todo pointed out that there are many Japanese companies that are not engaging in export activity despite engaging in R&D activity and having high productivity.[302] The percentage of companies engaging in R&D activity has stayed higher than the percentage of exporting companies, which means that in Japan, many companies continue to refrain from exporting activity despite possessing export potential.

Conversely, the possibility has been pointed out that overseas business expansion may raise productivity. As companies face intensified international competition by engaging in export activity, they try to introduce more efficient production methods and quality control, and as a result, their productivity may improve. It is also expected that they will acquire the most advanced technologies and management knowhow in foreign markets into which they have expanded. In this respect, Ito and Tanaka showed that among Japanese exporting companies, the percentage of those that are engaging in R&D activity is high and also that the percentage of those that are using both internal and external R&D is high[303] (Table II-3-2-12).

Table II-3-2-12. Relationship between exporting companies and R&D

	Non-exporters	Exporters	Total
No R&D	6177	1210	7387
Internal R&D	2297	1865	4162
External R&D	253	170	423
Both R&D	539	1113	1652
Total	9266	4358	13624

Source: Ito and Tanaka (2013).

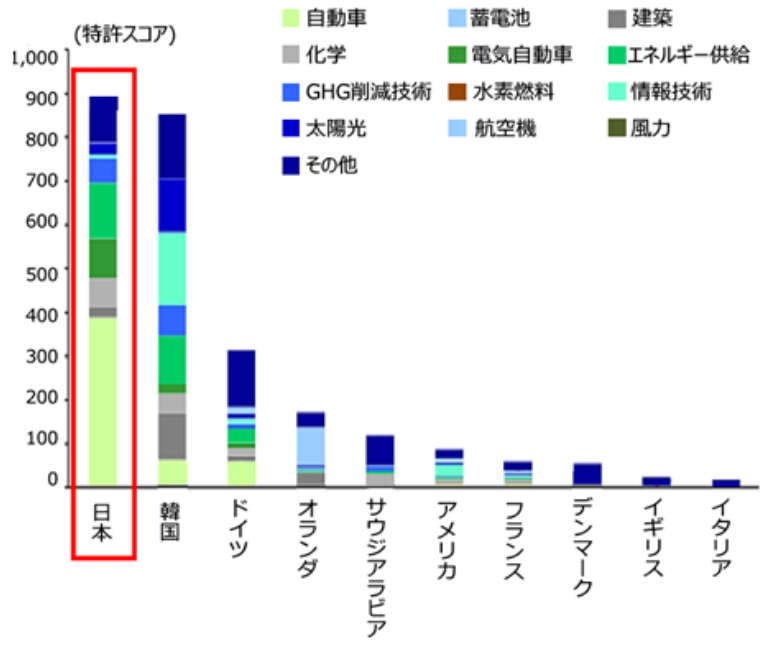
[301] Ministry of Economy, Trade and Industry (2016)
[302] Todo (2011)
[303] Ito and Tanaka (2013)

(2) Toward promoting innovation

(A) Characteristics of innovation in Japan

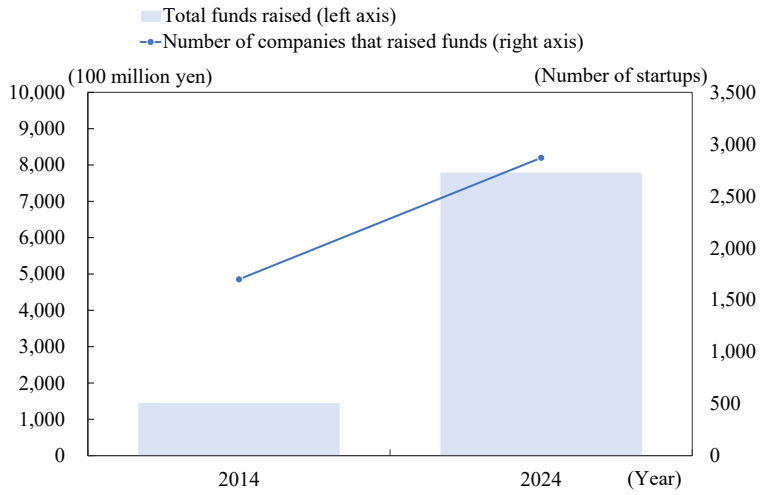
As indicated above, promoting innovation is likely to lead to the expansion of exports. Japanese companies have ample potential to grow through innovation. For example, in the area of GX, the patent score for Japan is high (Figure II-3-2-13). As the value of funds raised by domestic startups is increasing (Figure II-3-2-14), the environment for fostering domestic startups is being developed, so it is important to nurture such companies.

Figure II-3-2-13. GX-related patent scores for companies by country



Source: *KEIZAI SANGYOUSHOU NO INOBEESHON SUISHIN NO TORIKUMI NI TSUITE* (METI).

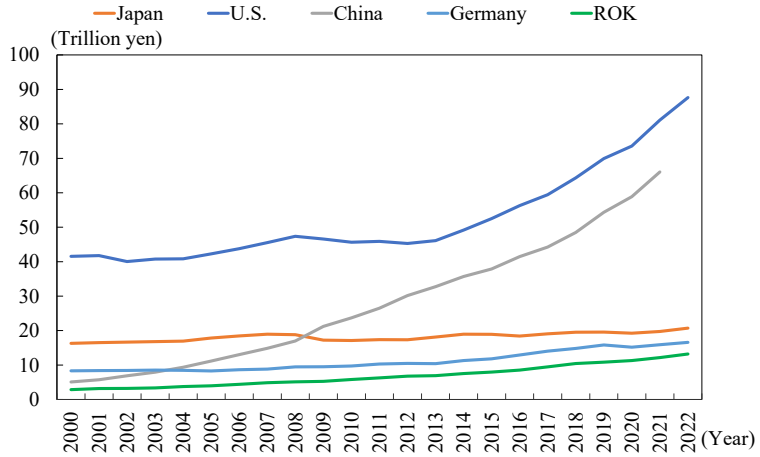
Figure II-3-2-14. Situation of funds raised by domestic startups



Note: "Number of companies that raised funds" include those with unknown amounts.
Source: *SUTAAT APPU JOUHOU RISAACHI* (as of January 20, 2025; Speeda).

However, despite the growth potential like that, R&D activity in Japan has failed to grow in terms of quantity and quality. In terms of quantity, R&D activity has been growing rapidly in the United States and China and has also been increasing in Germany and the ROK, but in Japan, R&D expenditure has remained flat (Figure II-3-2-15).

Figure II-3-2-15. Changes in R&D expenditure in the business sector

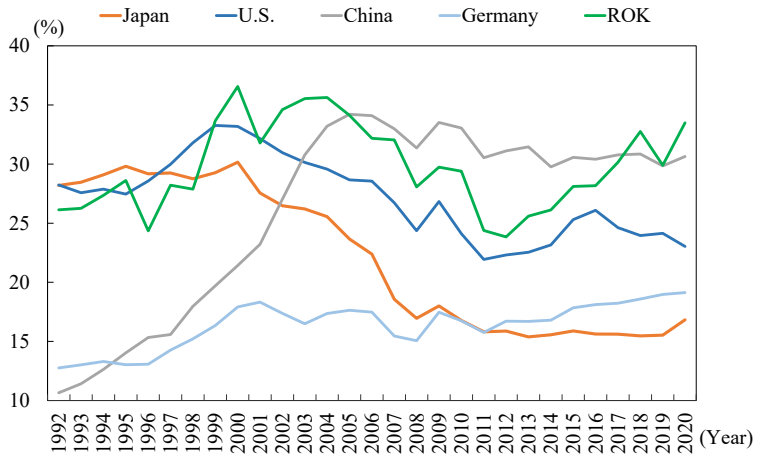


Note: The definition of the business sector in each country follows the "Japanese Science and Technology Indicators 2024."

Source: *Japanese Science and Technology Indicators 2024* (MEXT National Institute of Science and Technology Policy).

If the share of "high R&D intensity industries" (aerospace, pharmaceuticals, electronics equipment, and optical equipment)[304] in Japan's exports of goods is calculated from OECD data in accordance with the definition of that category by Galindo-Rueda and Verger, it has remained low (Figure II-3-2-16).

Figure II-3-2-16. Shares of R&D intensive goods in exports

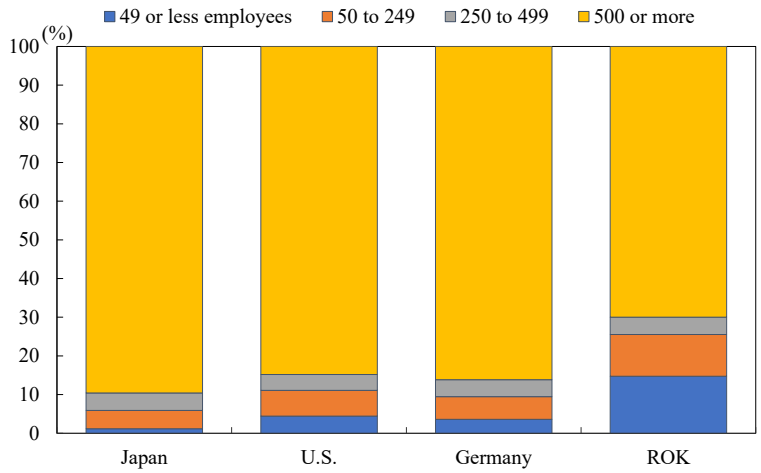


Source: *Bilateral Trade Database by Industry and End-Use* (OECD).

[304] Galindo-Rueda and Verger (2016) characterizes these industries as "high R&D intensity industries."

In Japan, R&D activity is mainly conducted by large companies (Figure II-3-2-17). The value of R&D investments made by large companies is also high in the United States, Germany and the ROK, but the share of companies with a workforce of less than 500 employees in overall value of R&D investments is smallest in Japan.

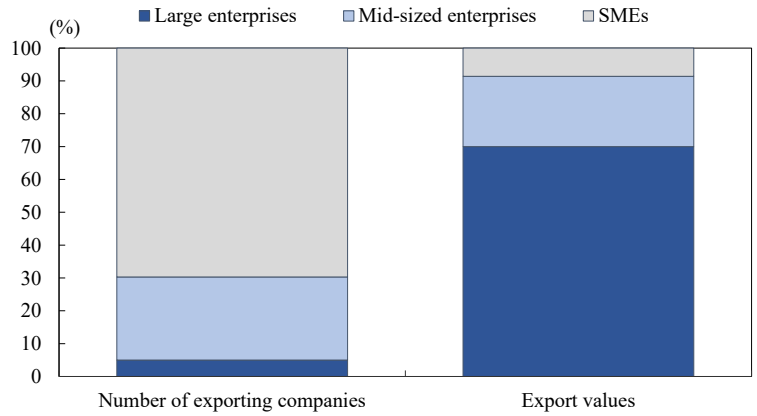
Figure II-3-2-17. R&D investments by company size (2021)



Source: Research and Development Statistics (OECD).

In terms of the value of exports as well, the share of large companies is high (Figure II-3-2-18). According to the Cabinet Office, the difference in the percentage of exporting companies between a group of companies with a workforce of 250 or more employees and a group of companies with a workforce of between 50 and 249 employees in Japan is larger than the average difference in the OECD member countries.[305]

Figure II-3-2-18. Number of exporting companies and exports values by company size



Source: Materials distributed at the 31st meeting of the Council of New Form of Capitalism Realization of the Cabinet Office.

[305] Cabinet Office (2023)

In light of the above, open innovation that takes advantage of the potential of small and medium-sized enterprises (SMEs) has further possibilities. Open innovation has merits such as enabling cooperation with competent personnel both inside and outside the company (Table II-3-2-19).

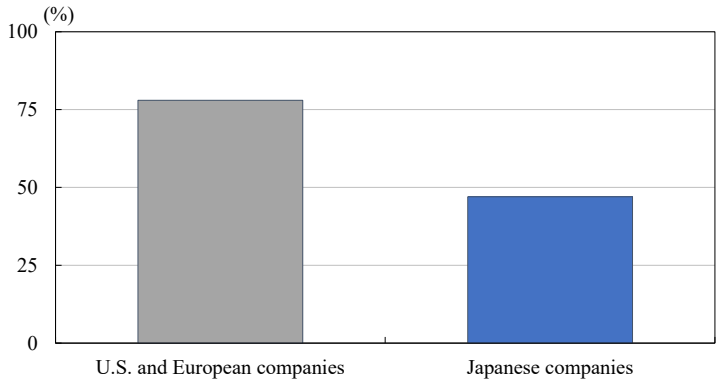
Figure II-3-2-19. Approaches to open innovation and closed innovation

クローズドイノベーション	オープンイノベーション
✓ イノベーションを促進するためには、もっとも優秀な人材を雇うべきである	✓ 社内に優秀な人材は必ずしも必要ではない ✓ 社内に限らず社外の優秀な人材と共同して働けばよい
✓ 研究開発から利益を得るためには、発見、開発、商品化まで独力で行わなければならない	✓ 外部の研究開発によって大きな価値を創造できる ✓ 社内の研究開発は、価値の一部を確保するために必要
✓ 独力で発明すれば、一番早く市場に出した企業が成功する	✓ 利益を得るためには、必ずしも基礎から研究開発を行う必要はない
✓ イノベーションを最初にマーケットに出した企業が成功する	✓ 優れたビジネスモデルを構築する方が、製品を最初にマーケットに出すよりも重要である
✓ 業界でベストのアイデアを創造したものが勝つ	✓ 社内と社外のアイデアを最も有効に活用できたものが勝つ
✓ 知的財産権をコントロールし、他社を排除すべき	✓ 他社に知的財産権を使用させることで利益を得たり、他社の知的財産権を購入することで自社のビジネスモデルを発展させることなども考えるべきこと

Source: *Open Innovation White Paper, 3rd Edition* (NEDO).

However, the percentage of companies implementing open innovation is lower among Japanese companies than among U.S. and European companies (Figure II-3-2-20). Given that the percentage of companies engaging in overseas business expansion is high among companies engaging in innovation activity as mentioned earlier, a rise in the open innovation rate is expected to help promote exports.

Figure II-3-2-20. Percentage of companies implementing open innovation



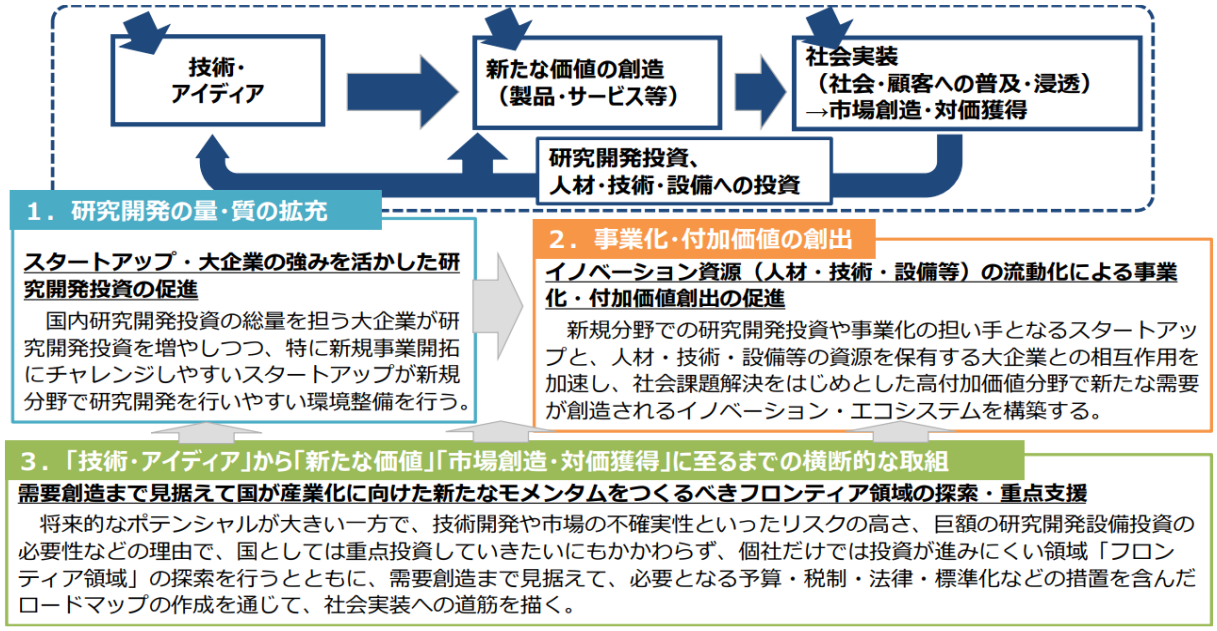
Note: The percentages of companies implementing open innovation are based on those compiled at the questionnaire survey conducted by Yoneyama et al. (2017), targeting Japanese and U.S. and European companies.

Source: Yoneyama et al. (2017).

(B) Measures to promote innovation

In order to further enhance industrial competitiveness, Japan is implementing an innovation promotion policy, whose pillars are enhancement of R&D in terms of quantity and quality, commercialization, creation of value added, and cross-sectoral initiatives (Figure II-3-2-21).

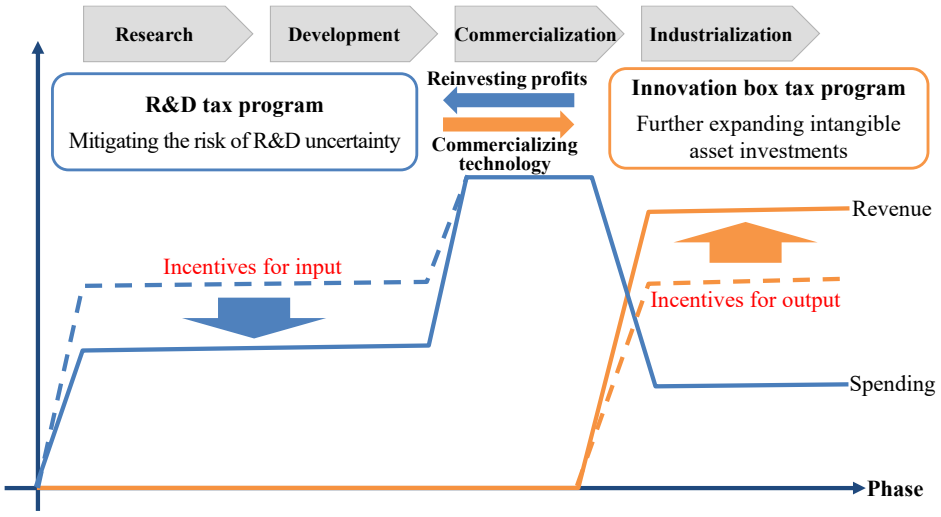
Figure II-3-2-21. Approaches to policy measures to promote innovation



Source: *KEIZAI SANGYOUSHOU NO INOBEESHON SUISHIN NO TORIKUMI NI TSUITE* (METI).

With a view to enhancing R&D in terms of quantity and quality, the government is using tax programs to promote R&D investments by private-sector companies.[306] Specifically, the government has created an R&D tax program focusing on R&D as input for innovation and an innovation box tax program focusing on income from intellectual property as output from innovation (Figure II-3-2-22).

Figure II-3-2-22. Relationship between R&D tax program and innovation box tax program



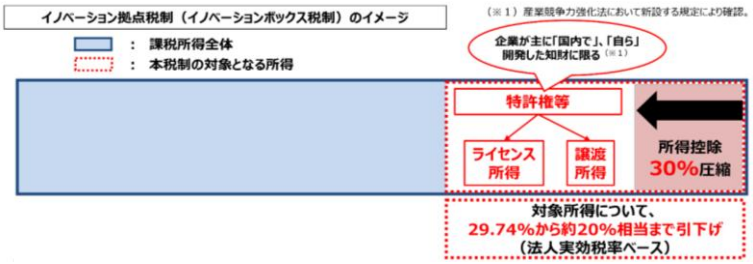
Source: *INOBEESHON KYOTEN ZEISEI TO KENKYUU KAIHATSU ZEISEI NI TSUITE* (METI).

[306] According to Bloom et al. (2019), the effectiveness of an R&D tax program as an innovation promotion policy measure has been academically confirmed.

There was already an existing R&D tax program, but under the tax system reform in FY2023, in order to further expand R&D investments by private-sector companies through the general-type tax deduction, a mechanism whereby the incentive works better because the upper limit on the credit amount concerning corporate tax varies in accordance with change in the value of experiment and research expenditure was introduced. In addition, regarding the open innovation-type tax deduction, the definition of an R&D type startup was revised with respect to the type of deduction intended to encourage joint research with startups and research entrusted to startups. From the viewpoint of promoting high quality research and development and creating revolutionary innovations, a new type of tax deduction, which deducts part of the personnel cost when a person with a doctoral degree has been hired, was created, among other changes.

Amid the intensifying international competition for innovation, in addition to promoting open innovation, it is also important to strengthen Japan's locational competitiveness as an R&D hub and support investment in intangible assets by private-sector companies. From that viewpoint, the innovation box tax program[307] grants the deduction of 30% of licensing income and capital gains derived from patent rights and copyrights for AI-related programs from the taxable income amount (Figure II-3-2-23). Tax break measures like this started to be introduced in European countries in the 2000s, and recently, such measures have also been introduced in Asian economies, including Singapore, India, and Hong Kong.

Figure II-3-2-23. Overview of the innovation box tax program



Source: *INOBEESHON KYOTEN ZEISEI (INOBEESHON BOKKUSU ZEISEI) NI TSUITE* (METI).

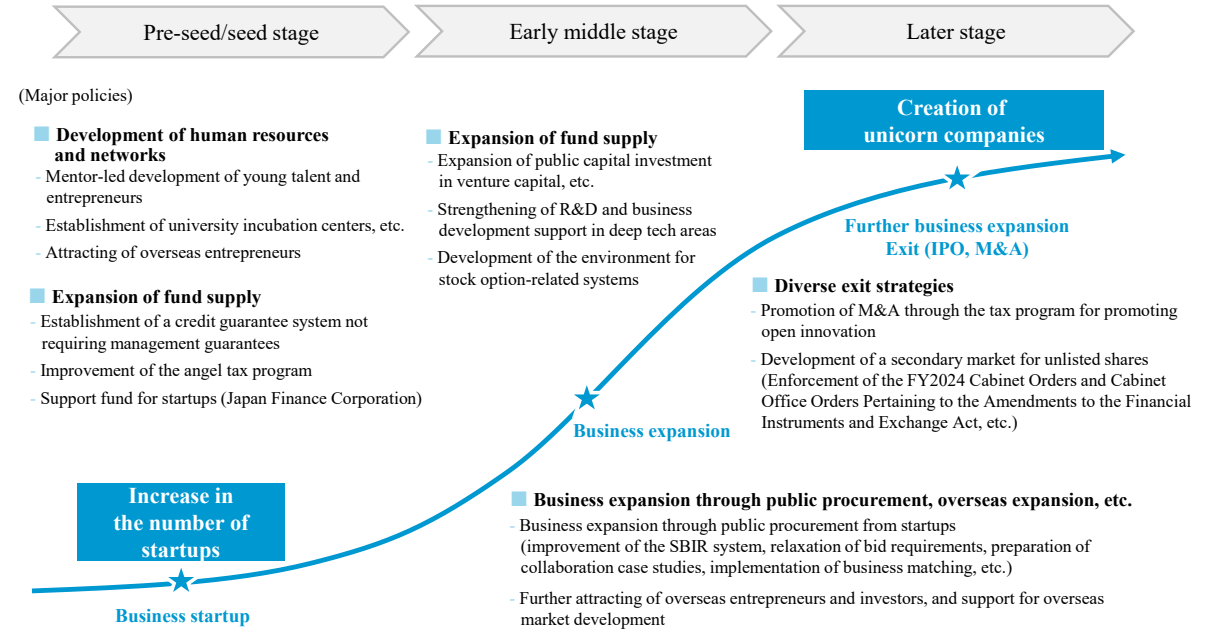
The R&D tax program, which provides an incentive concerning input for innovation investment, and the innovation box tax program, which provides an incentive concerning output, are considered to contribute to promoting innovation in Japan. While the R&D tax program has the effect of mitigating the risk of uncertainty over R&D and enhancing the incentive for R&D investment, the innovation box tax program is expected to exercise the effect of strengthening Japan's locational competitiveness as an R&D hub by granting tax deduction for income derived from domestically created patents and other intellectual property.

In light of the fact that it is difficult for large companies to bear risks from R&D investment and commercialization in new areas with higher risks while startups face high hurdles in business expansion,

[307] Ministry of Economy, Trade and Industry, "INOBEESHON KYOTEN ZEISEI (INOBEESHON BOKKUSU ZEISEI) NI TSUITE," https://www.meti.go.jp/policy/tech_promotion/tax/about_innovation_tax.html (as viewed on May 15)

it is important to take advantage of the respective characteristics of these two groups of companies in order to promote commercialization and creation of value added. Regarding support for startups, based on the Startup Development Five-year Plan, which was formulated in 2022, the government has launched various support measures under three pillars, that is, human resource development, financing, and commercialization. The challenges for startups vary across stages of business expansion. In the "pre-seed stage" and "seed stage" in the business startup phase, in addition to supporting the development of human resources and networks, the government is facilitating finance through the angel tax program, which provides preferential treatment to individual investors investing in startups, and is expanding the supply of funds through Japan Finance Corporation. In the subsequent "early middle stage" and "later stage," the government is developing support measures suited respectively to the various stages of business expansion, including the promotion of the expansion of fund supply, support for business expansion through public procurement and promotion of overseas business opportunities, and the diversification of exit strategy options (Figure II-3-2-24).

Figure II-3-2-24. Overview of the Startup Development Five-year Plan



Source: *SUTAATO APPU NO CHIKARA DE SHAKAI KADAI KAIKETSU TO KEIZAI SEICHOU WO KASOKU SURU* (February 2025) (METI).