



August 25, 2021
Bank of Japan

**Economic Activity, Prices,
and Monetary Policy in Japan**

*Speech at a Meeting with Local Leaders in Miyazaki
(via webcast)*

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Member of the Policy Board

(English translation based on the Japanese original)

I. Economic and Price Developments at Home and Abroad

A. Recent Developments in Economic Activity and Prices

I will begin my speech by talking about recent developments in economic activity and prices.

Overseas economies have recovered on the whole, led by advanced economies and China, despite the growing impact of the spread of the novel coronavirus (COVID-19) and its variants (Chart 1).

Against this background, Japan's economy has picked up as a trend, although it remains in a severe situation (Chart 2). Exports and production continue to increase steadily. Business performance of firms also has improved on the whole. On the other hand, private consumption has been stagnant due to weakness in consumption of face-to-face services, such as eating and drinking as well as accommodations. On the price front, the year-on-year rate of change in the consumer price index (CPI) for all items less fresh food, or the core CPI, has been at around 0 percent recently, mainly due to the rise in energy prices, despite being affected by COVID-19 and the reduction in mobile phone charges (Chart 3).¹ The rate of change in the core CPI remains slightly positive and has been steady when excluding the temporary effects of energy prices and mobile phone charges. Given that the recent large reduction in charges for mobile phones is a temporary price change in one specific sector, it is rather unlikely to affect people's medium- to long-term inflation expectations. Nonetheless, I will continue to closely monitor price developments.

B. Outlook for Economic Activity and Prices

Let me touch on future developments in overseas and domestic economies.

As the impact of COVID-19 wanes due to progress with vaccinations, overseas economies are likely to continue growing, albeit with variation across countries and regions, supported also by aggressive macroeconomic policies taken mainly in advanced economies.

¹ With the base year of the CPI being changed from 2015 to 2020, the year-on-year rate of change in the core CPI for the April-June quarter of 2021 was revised downward by about 0.7 percentage point from 0.1 percent for the 2015 base to minus 0.6 percent for the 2020 base. This is mainly because the negative contribution of mobile phone charges to the year-on-year rate of change in the core CPI increased from about minus 0.6 percentage point to about minus 1.1 percentage points.

In this situation, Japan's goods exports are projected to continue increasing steadily, supported mainly by an expansion in digital-related demand and a recovery in business fixed investment, both on a global basis. Private consumption and inbound tourism consumption, the latter of which is categorized under services exports, are expected to be substantially affected by COVID-19 for the time being but likely to recover as the impact of the pandemic wanes due to, for example, the progress with vaccinations both at home and abroad and with strengthening of domestic medical response capabilities. As the economy recovers, the year-on-year rate of change in the CPI is expected to increase moderately (Chart 4).

C. Risk Factors for Economic Activity and Prices

I should note that the outlook is subject to considerable uncertainty and call particular attention to downside risks for the time being, mainly due to the impact of the spread of COVID-19, caused in particular by variants across Japan and abroad. Considering developments in the more distant future, I am particularly attentive to the following three factors.

The first is pent-up demand for services consumption. In the United States, the amount outstanding of household cash and deposits increased by 3.1 trillion dollars relative to the trend as of end-March 2021 (Chart 5). Economic activity in the country has been buoyed by the materialization of pent-up demand with the vaccination progress. Similarly in Japan, the amount outstanding reached a historical high of 1,056 trillion yen as of end-March 2021, increasing by 37 trillion yen relative to the trend. If Japan's vaccine rollout and strengthening of medical response capabilities make progress and this contributes to reducing the impact of COVID-19, households will try to make up for lost spending opportunities, thereby increasing consumption by more than in normal times. This is expected to result in a materialization of pent-up demand, thereby stimulating economic activity. My view is that the timing of such materialization has been somewhat delayed, mainly due to the impact of the resurgence of COVID-19, but economic activity thereafter could become more vigorous than expected.

The second factor is firms' price-setting behavior. Reducing prices is not an effective measure to attract customers under the current circumstances as vigilance against COVID-19

continues. Firms also suffer higher costs due to infection prevention measures and to rises in prices of imported raw materials with the global economic recovery. I therefore consider that firms' price cuts that aim at stimulating demand will still not be observed widely. Having said that, as seen in some cases in the United States, it is important from a longer-term perspective that firms improve their profitability through, for example, passing on cost increases by raising prices at the time of the materialization of pent-up demand in order to repay the loans that have grown, mainly in the face-to-face services sector, due to the decline in sales. I am closely monitoring whether firms will adopt a price-setting behavior that reflects the improvement in demand so that their loan repayments and efforts to increase productivity will make steady progress.

The third factor is the path of firms' medium- to long-term growth expectations. In the Bank of Japan's June 2021 *Tankan* (Short-Term Economic Survey of Enterprises in Japan), the business conditions DI for all industries and enterprises improved for the fourth consecutive quarter. The survey also showed an 8.1 percent decrease in the business fixed investment plan for all industries and enterprises, including financial institutions, for fiscal 2020 from the previous fiscal year and a subsequent 9.4 percent increase in the plan for fiscal 2021, returning to a level broadly similar to that of the fiscal 2019 plan (Chart 6). Thus, there has been no evidence of a decline in firms' medium- to long-term growth expectations. However, attention should be paid to the fact that the business fixed investment plan for fiscal 2021 includes investment carried over from the previous fiscal year. I am paying careful attention to firms' investment behavior, because in order for the economy to achieve sustainable growth, firms' investment to accelerate structural reforms so as to address digitalization and climate change -- I will revisit these issues later -- needs to lead to a sustainable improvement in productivity and in turn an increase in their medium- to long-term growth expectations.

II. Conduct of Monetary Policy

Let me now turn to the Bank's policy conduct.

The Bank has conducted powerful monetary easing since March 2020 in response to COVID-19 through the following three measures (Chart 7). The first is the Special Program to Support Financing in Response to the Novel Coronavirus (COVID-19) to provide support, mainly for

corporate financing. The second is an ample and flexible provision of funds, mainly by purchasing Japanese government bonds (JGBs) and conducting the U.S. dollar funds-supplying operations. The third is purchases of exchange-traded funds (ETFs) and Japan real estate investment trusts (J-REITs). As indicated in the findings of the Assessment for Further Effective and Sustainable Monetary Easing released in March 2021, the Bank's responses have had positive effects, coupled with the government's measures and active efforts by financial institutions.

Climate change -- which has increasingly been regarded both at home and abroad as an issue that requires innovative changes -- could exert an extremely large impact on developments in economic activity and prices as well as financial conditions from a medium- to long-term perspective. Thus, it is relevant to the Bank's mandate to achieve price stability and financial system stability. From this perspective, the Bank, at the Monetary Policy Meeting held in July 2021, decided on the preliminary outline of a new fund-provisioning measure to support financial institutions' efforts on climate change (Chart 8).

In this measure, the Bank takes the approach of providing funds to financial institutions for investment or loans they make to address climate change based on their own decisions. The aim is to avoid its direct involvement as much as possible in micro-level resource allocation. The guidelines, or taxonomies, for classifying economic activities depending on the contribution to addressing climate change are still under discussion both at home and abroad. However, if we wait for these debates to be settled, this will considerably delay the actions on climate change. I believe that the Bank's approach has the advantage of enabling it to support private sector initiatives to tackle this important challenge as promptly as possible while also ensuring flexibility in responding to changes in the situation.

The Bank will consider the details of this new measure to increase effectiveness through an exchange of opinions with financial institutions and other entities, and will likely start the fund-provisioning under the measure within 2021. To realize a sustainable society, I believe that financial institutions' investment or loans to address climate change are important in supporting the efforts of firms that aim to meet Japan's target of reducing greenhouse gas emissions and in increasing firms' medium- to long-term growth expectations. Thus, I hope

that the Bank's new measure will further encourage such investment and lending activities by financial institutions.

III. Structural Changes in Japan's Economy

A. The "Lost Two Decades" and Deflation

Next, I would like to share my view on structural changes in Japan's economy and the challenges they pose from a longer-term perspective, based on my experience at a private firm I worked at from 1975 to 2020.

Up until the 1985 Plaza Accord, the yen remained weak against the U.S. dollar, generally hovering above 200 yen (Chart 9). In that situation, Japan's economic growth was export driven. At the same time, industrial clusters were formed that incorporated small and medium-sized firms within the country. Firms took advantage of the growth in overseas economies by way of product exports and distributed their profits to households through sustained increases in employment of domestic workers and labor income. Against this background, a virtuous cycle operated in Japan where (1) households deposited their surplus funds at banks and profited from the high interest income brought about by the strong growth of the domestic economy, ultimately increasing consumption, (2) banks earned interest margins on the loans they made to firms, and (3) firms used borrowed funds for fixed and research and development (R&D) investments to drive exports and production.

After the Plaza Accord, in the second half of the 1980s, the yen appreciated against the U.S. dollar to 120-130 yen. Partly because the government encouraged a structural change of the economy from one that is export driven to one that is driven by domestic demand, manufacturers started to transfer their production bases overseas. Furthermore, in Japan, the nonmanufacturing industry saw rapid growth, fueled by strong private consumption on the back of an increase in household disposable income (Chart 10). There was a view at the time that Japan's economy had achieved domestic demand-driven growth.²

² Economic Planning Agency, *Economic Survey of Japan (Economic White Paper)*, August 1989 (available only in Japanese).

However, after the bubble burst in the first half of the 1990s, firms were burdened by the "three excesses" in employment, production capacity, and debt.³ The working styles that involve traditional employment practices were slow in changing. Many firms addressed the decline in earnings by means of cost structure reforms, mainly by squeezing fixed expenses such as labor and depreciation costs and shifting their production bases to developing economies with cheap labor costs. Therefore, the realignment of their business portfolio, which would enhance their value-added, was postponed.

Given this, as well as the further appreciation of the yen, Japan slipped into deflation from the latter half of the 1990s. Let me elaborate on the effects of deflation from the viewpoint of firms, albeit in simplified terms (Chart 11). Amid deflation, which persisted for about 15 years, Japanese firms were met with higher prices of imported raw materials brought about by the growth of overseas economies and with inflows of low-priced goods from developing economies. As a result, they experienced decreases in sales and profits as well as lower productivity. Firms then took measures to reduce fixed expenses. However, as I recall, in many cases they (1) prioritized maintaining employment of their workers, mainly due to the traditional practice of lifetime employment, (2) postponed the realignment of their business portfolio, which would enhance their value-added otherwise, and (3) held down wage growth due to sluggish productivity growth. They also had little choice but to restrain fixed and R&D investments, which led to delayed development of attractive and competitive new products and services. Consequently, firms were in a vicious cycle of sluggish demand, excluding that for daily necessities such as food, and of further price cuts to maintain demand. Moreover, the prolonged deflation undermined firms' prospects for future increases in sales and profits and reduced their capacity to invest in innovative initiatives such as digital utilization.

Turning to households, about 70 percent of those employed in Japan work for small and medium-sized firms. Many of these firms were met with cost competition from developing economies and weak domestic demand owing to structural problems of Japan's economy -- namely, the declining birth rate, the aging population, and the drop in the working-age population. Therefore, they had little room to raise the wages of their workers, and the

³ Economic Planning Agency, *Economic Survey of Japan (Economic White Paper)*, July 1999 (available only in Japanese).

workers in turn hardly benefited from the growth of overseas economies. Under these circumstances, households did not have hopes for a sustained increase in wages based on the lifetime employment practice and seniority-based wages, which created anxiety for the future. To prepare for uncertainty, I think that households were increasingly inclined to hold back on risky asset investment and instead hoard cash and deposits.

As illustrated, both firms and households postponed innovation and investment, being entrenched in deflation that persisted for about 15 years. Consequently, Japan lagged other countries in the pace of innovation, which in turn led to sluggish productivity growth.

B. Progress of Globalization and Household Income Structures

Subsequently, bold monetary easing policy and flexible fiscal policy -- part of a strategy that the Bank started implementing in 2013 -- served to arrest the deflationary trend. Various other measures were also put in place to tap into growth in overseas economies, including ones to stimulate demand from inbound tourism, which is classified as service exports, and this caused such exports to assume a larger role in driving growth (Chart 12). Likewise in the private sector, following the Global Financial Crisis, major manufacturers seeking to capture foreign demand made further inroads into overseas markets⁴ while firms, including leading nonmanufacturing firms, turned increasingly to acquisitions from around 2013, leading to further growth in outward direct investment (Chart 13). Reflecting these developments, the surplus in primary income -- or the positive balance associated with foreign investment -- has expanded, serving as the main factor in the current account surplus (Chart 14).

The achievement of globalization has not been without its share of pain brought about by needed structural reforms, but it has enabled leading firms to tap into growth in overseas economies in their improved consolidated performance and in the form of higher dividends and royalties from overseas subsidiaries. Growth in consolidated performance is reflected in stock prices and feeds into higher dividends paid out to shareholders. These efforts to reform corporate structure have borne fruit: developments in the Tokyo Stock Price Index (TOPIX), which represents the corporate value of listed Japanese firms, have been increasingly inclined to follow the world's trend of nominal GDP (Chart 15).

⁴ Cabinet Office, *Annual Report on the Japanese Economy and Public Finance 2013*, July 2013.

Let me turn to the income structure of Japanese households over this period. Employee compensation has risen moderately since around 2013, but only to the extent of making up for former decreases (Chart 10). After peaking in 1991, interest income continued to slide until 2005, after which it has languished. Dividend income has increased modestly but not enough to offset the fall in interest income. Reflecting these developments in income and changes in the social structure, household disposable income had been sluggish after reaching its peak in 1998, but finally started to improve from the first half of the 2010s. By contrast, in the United States, employee compensation, interest income, and dividend income have all risen, with disposable income for 2020 more than triple that of the first half of the 1990s. In Germany, while interest income is on a slight decline, employee compensation and dividend income are rising by a wider margin, and disposable income has roughly doubled from the amount of the early 1990s.

Household financial assets in Japan continued to increase even during the so-called "lost two decades," almost doubling from 1,017 trillion yen at the end of fiscal 1990 to 1,946 trillion yen at the end of fiscal 2020. However, the breakdown shows that growth in equity and investment trusts has been sluggish compared with cash and deposits. This is also evident when comparing the household financial asset composition in Japan with the United States and Europe: in Japan, cash and deposits are markedly higher, at 54 percent, while equity and investment trusts combined are lower, at 14 percent (Chart 16). The upshot is that employee compensation accounts for an extremely high proportion of household income in Japan.

As I touched on earlier, because Japanese firms that have moved forward with globalization efforts have been able to tap into growth in overseas economies, if households gradually expand their investments in the equity of these firms or in investment trusts that invest in these firms, they will reap the benefit of overseas economic growth over the longer term, as higher dividends and other investment income feed into their disposable income. It is a rough estimate assuming all other things are equal, but if Japanese households start to invest 20 percent of their financial assets, or about 400 trillion yen, shifting their cash and deposits into equity and investment trusts, at a 1.6 percent dividend yield, this will translate into an annual

increase in disposable income of 5 trillion yen, or roughly 2 percent. If this is then channeled into private consumption, it is expected to engender a virtuous cycle in the domestic economy.

In Japan, as in other advanced economies, I would say that people can be more willing to hold assets over the long term and shift their asset structure to one that derives stable income through dividends. In doing so, they would invest in risk assets such as investment trusts while appropriately diversifying risks, placing a part of their savings in cash and deposits. To be sure, history has seen repeated turmoil in the financial markets and plunges in stock prices, but I believe that many listed firms have overcome these events and are pursuing sustainable growth while consolidating their positions in global markets. This is reflected in their stock prices.

Currently, some observers note that public interest in investment, such as in investment trusts, is on the rise in Japan, especially among younger people who have limited negative experience of market turmoil, such as the bursting of the economic bubble. Indeed, the total number of individual stock investors as of the end of fiscal 2020 was up by 3.08 million from the previous fiscal year, the seventh straight year of growth. This signals a change in the deep-rooted propensity of Japanese people to hold their financial assets in the form of cash and deposits. Adding to this momentum, the working population is increasingly starting to select their own financial products: of pension funds sponsored by firms, the number of subscribers to defined contribution corporate pension plans, where employees select products of their choice, has risen to approximately 7.5 million.⁵ Given the increase in financial literacy, risk-taking behavior has been spreading among individual investors seeking to increase their returns by taking on short-term investment risks on the assumption that investments will be made in the long term. Consequently, the yields of defined contribution pension plans have come to exceed those of defined benefit pension plans. Coupled with rising public interest in environmental, social, and governance (ESG) and other aspects of sustainability, my hope is that household financial assets that have long been tucked away in the form of cash and deposits will make a greater contribution to economic growth and social change in Japan. Meanwhile, I also hope that firms will strengthen their business strategies to achieve

⁵ Ministry of Health, Labour and Welfare, "Implementation of Defined Contribution Pension Plans (as of March 31, 2021)" (available only in Japanese).

sustainable growth and build corporate value, and that the financial sector will further encourage these developments.

IV. Digitalization and Climate Change Response

A. Digitalization

In addition to these structural problems facing the domestic economy, Japan is currently dealing with sweeping changes associated with digitalization and response to climate change. The delay in Japan's digitalization has become evident once again due to the COVID-19 pandemic. The World Digital Competitiveness Ranking of the Institute for Management Development (IMD) shows that South Korea and China are steadily improving their digital competitiveness, while Japan remains at a low ranking among the Group of Seven (G7) countries and major Asian economies (Chart 17). Japanese firms have a similar perception about their digital competitiveness. Developments in software investment among Organisation for Economic Co-operation and Development (OECD) countries reveal that investment by the United States, the United Kingdom, Germany, and France has risen sharply since 2000, growing by 2.4 times in the United States and France and doubling in the United Kingdom and Germany in 2018. In Japan, such investment grew by about 1.2 times from 2000 to 2002 but has since been lackluster (Chart 18). Software investment for all industries and enterprises, including financial institutions, in the Bank's June 2021 *Tankan* registered a 7.4 percent year-on-year decrease for fiscal 2020. It was projected to register a 16.1 percent year-on-year increase for fiscal 2021, but this still represents only about a 7 percent increase over the fiscal 2019 level. At this rate it will take a decade for such investment in Japan to double from the current level.

Digitalization can be classified into the following three types, according to its stage⁶: (1) digitization, such as converting analog or paper-based data into digital format, or automating business and manufacturing processes; (2) digitalization, such as digitalizing individual business operations and manufacturing processes, or incorporating digital features into existing products; and (3) digital transformation (DX), such as transforming business models using digital technology.

⁶ Study Group for Acceleration of Digital Transformation, Ministry of Economy, Trade and Industry, *DX Report 2 (Interim Report)*, December 2020 (available only in Japanese).

One of the reasons Japanese firms have fallen behind in digitalization is the slow implementation of digitization for raising the efficiency of existing business operations, which was hindered by the practice of lifetime employment in the country, among other factors. As a result, I believe that digitalization and DX, which have already become mainstream in Europe and the United States, have been largely neglected in Japan. I also think the lack of economic metabolism comes into play: there are very few startups or small and medium-sized firms that make use of digital technology in an open-minded manner so as to grow into so-called unicorns with a valuation of over 1 billion U.S. dollars.

Recently, the shortage of digital technology professionals and firms' weak commitment to business transformation seem to be key obstacles to raising digital competitiveness in Japan (Chart 19). However, management's awareness of the need for business transformation through digitalization is higher than ever due to the pandemic. In a survey on IT trends⁷ of Japanese firms, when asked what problems require immediate action on the part of management, 70 percent of firms responded, "working style reforms," such as remote work, while about half answered, "decision-making for accounting, personnel management, and other matters, and revision of work processes," while half also answered, "changes in the way products and services are provided." Digitization and digitalization still seem to be a task for many firms. However, I am hopeful that Japanese firms will promote digitization, digitalization, and also DX to make use of digital technology -- including cloud computing and other services -- as a tool to drive growth, and further step up the pace of actions in reforming their business structures and boosting productivity.

B. Response to Climate Change

Climate change is a global challenge that will have a broad and large impact on our society and economic activity into the future. Discussions are underway at international forums, such as the G7 and the Group of Twenty (G20), to consider international initiatives, and making

⁷ Japan Users Association of Information Systems, *Survey of Corporate IT Trends 2021: Newest Trends in User Companies' Investment in and Use of IT (Fiscal 2020)*, April 2021 (available only in Japanese).

headway in addressing climate change will require various entities in society and the economy to actively play their roles.

As the central bank of Japan, the Bank has been communicating with financial institutions and engaging in international discussions. As various stakeholders, including the government and firms, accelerate their efforts concerning climate change, the Bank, for its part, has decided on a comprehensive strategy to further its efforts on climate change consistent with its mandate of achieving price stability and ensuring the stability of the financial system (Chart 20). One measure under the strategy is the new fund-provisioning measure I explained earlier, under which the Bank will provide funds to financial institutions for investment or loans they make to address climate change.

This is a crucial first step, but transforming the economy, industry, and society in order to achieve carbon neutrality by 2050 will require establishing an ecosystem that can support a monumental amount of private funds invested and recovered in a sustainable manner, and it will be necessary to keep a close eye on the progress of transformation overseas. In this regard, the European Union expects more than 1 trillion euros (130 trillion yen) worth of public and private investment in environmental fields by 2030 and is exploring the introduction of measures such as a Carbon Border Adjustment Mechanism to build an ecosystem in which the costs of investment can be steadily recovered. It is putting in place a framework to facilitate the flow of private sector funds inside and outside the region into environmental areas by, for example, formulating a taxonomy and proposing a regulation regarding green bond issuance.

As many investments that address climate change are long-term, the steady supply of risk money on a large scale is necessary. To this end, financial institutions and institutional investors are being called on to have strategic discussions with the firms that actually invest in climate change initiatives, and to harness their expertise in enhancing the functioning of the market to carry out efficient fund allocation.

Outside Japan, the financing of investments that address climate change is growing, mainly through the direct financing markets, such as via the issuance of stocks and green bonds. For

instance, green bond issuance worldwide has more than tripled in the last four years, from 80.4 billion U.S. dollars in 2016 to 285.8 billion U.S. dollars in 2020 (Chart 21). Issuance in Japan has also ballooned in recent years. However, the amount is about 1 trillion yen in 2020; thus, it remains small compared to the scale of Japan's economy and further growth is expected.

In response, the Japanese government announced plans to establish an international green finance center and is working with the Tokyo Stock Exchange to develop the green bond market. Various steps to ensure investor confidence in green bonds will be instrumental in stimulating this market. For example, firms need to enhance their climate change-related disclosure in terms of both quality and quantity, work to prevent "greenwashing," or the guise of environmental friendliness, and create a framework that allows investors to obtain useful information for their investment decisions.

My hope is that these reforms will create an ecosystem that facilitates the steady recovery of investment costs and enables monumental investments to be carried out sustainably. I will continue to keep a close eye on the progress of transformation regarding climate-related issues, steadfastly review and make adjustments to the Bank's measures where needed, and consider how a central bank can encourage firms' efforts on climate change so as to realize a sustainable society.

Thank you.



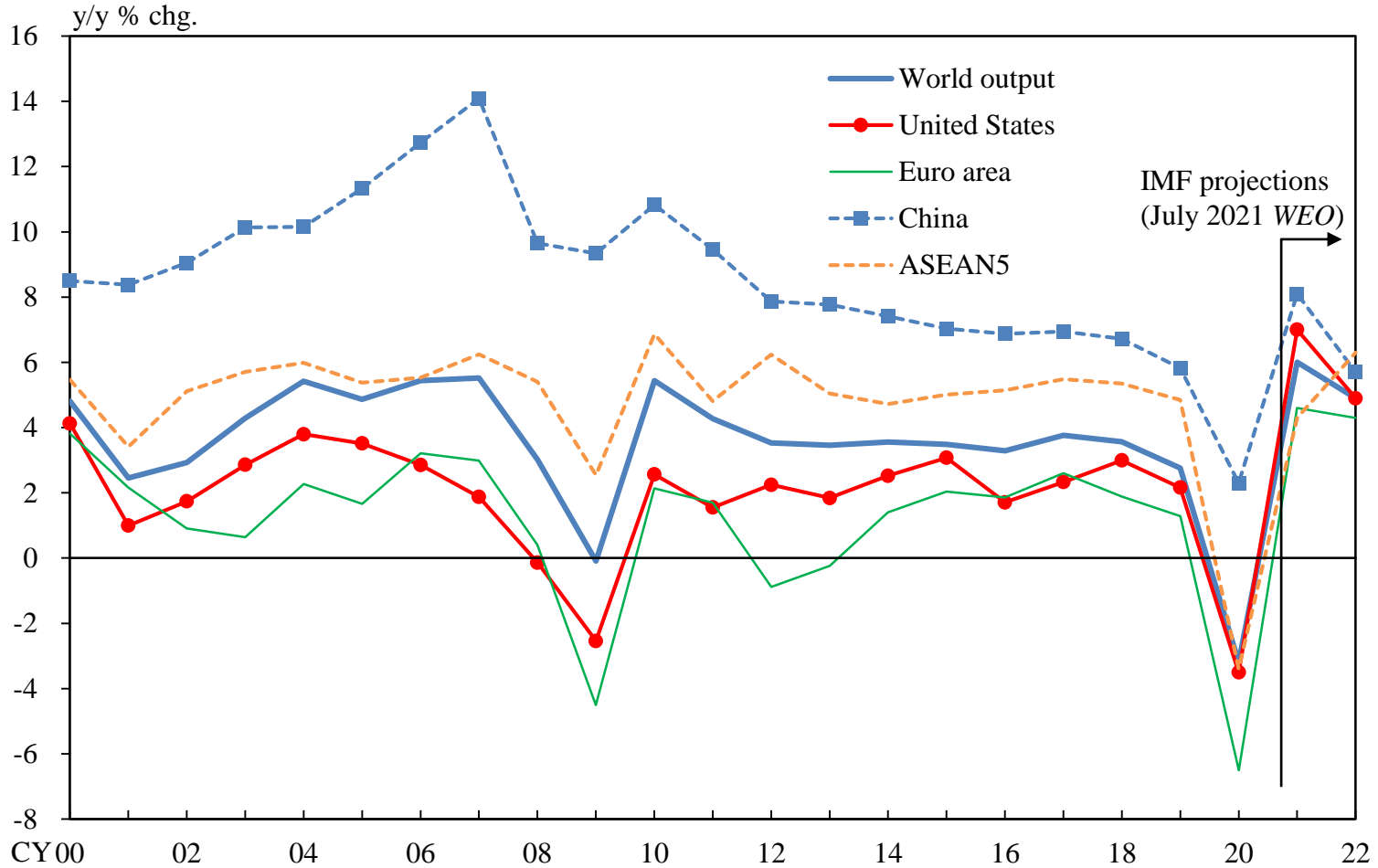
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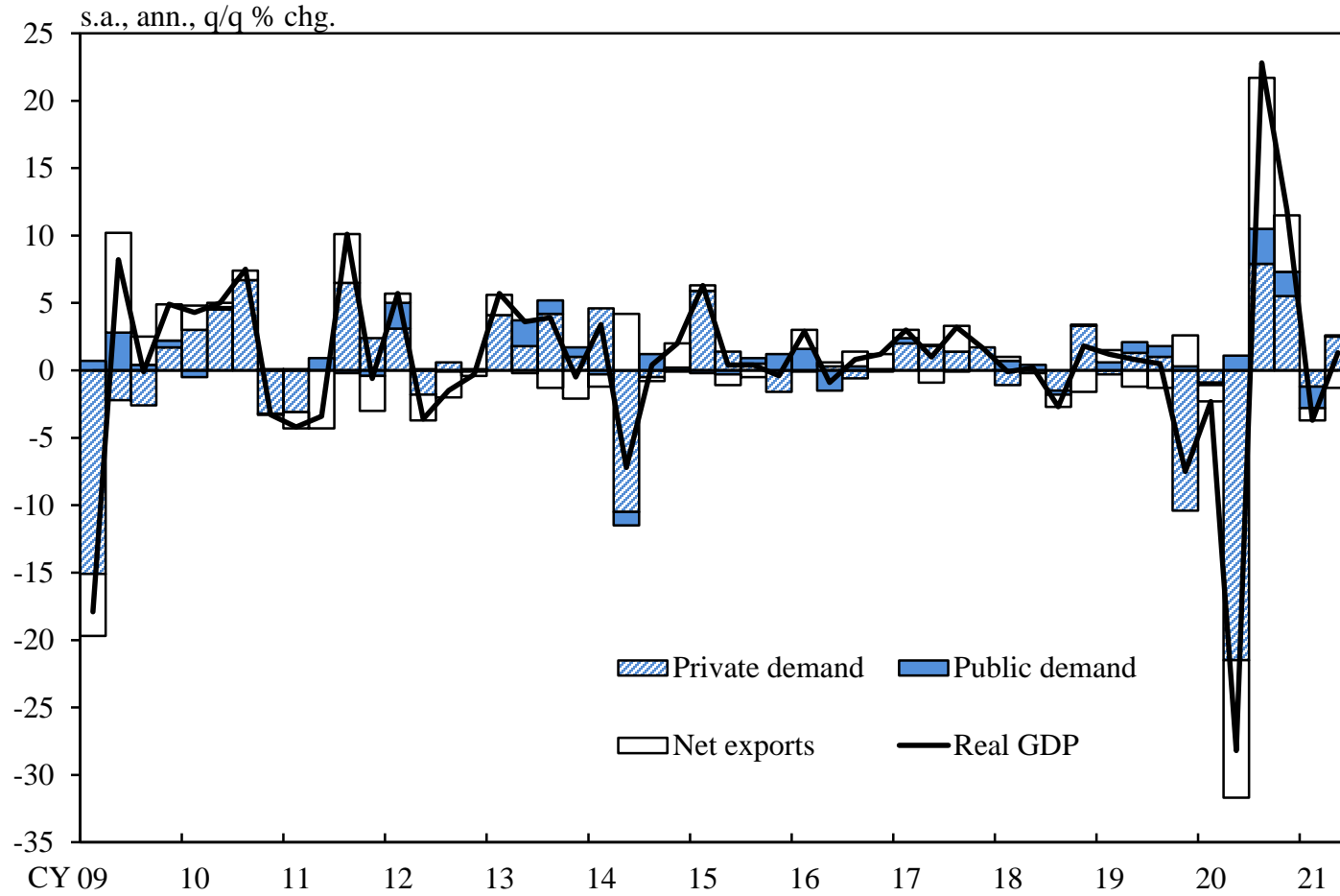
IMF Projections in the *World Economic Outlook*



Note: ASEAN5 consists of Indonesia, Malaysia, the Philippines, Thailand, and Vietnam.

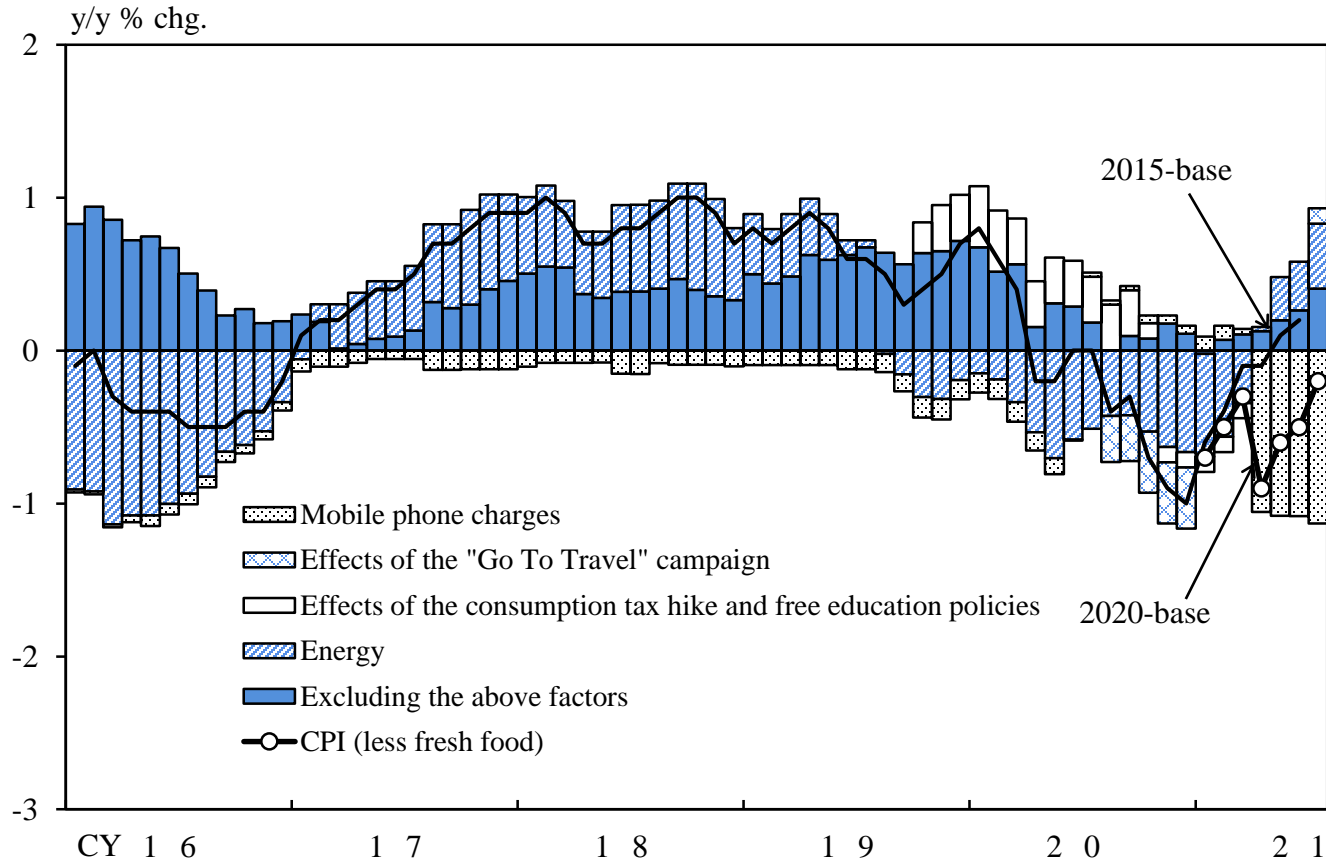
Source: IMF.

Japan's Real GDP



Source: Cabinet Office.

Japan's CPI (Less Fresh Food)



- Notes:
1. Energy consists of petroleum products (gasoline, kerosene, and liquefied propane), electricity, and manufactured and piped gas charges.
 2. Figures for the "effects of the consumption tax hikes and free education policies" from April 2020 onward are based on staff estimations and include the effects of measures such as free higher education introduced in April 2020.

Source: Ministry of Internal Affairs and Communications.

Outlook for Economic Activity and Prices as of July 2021: Forecasts of the Majority of Policy Board Members

y/y % chg.

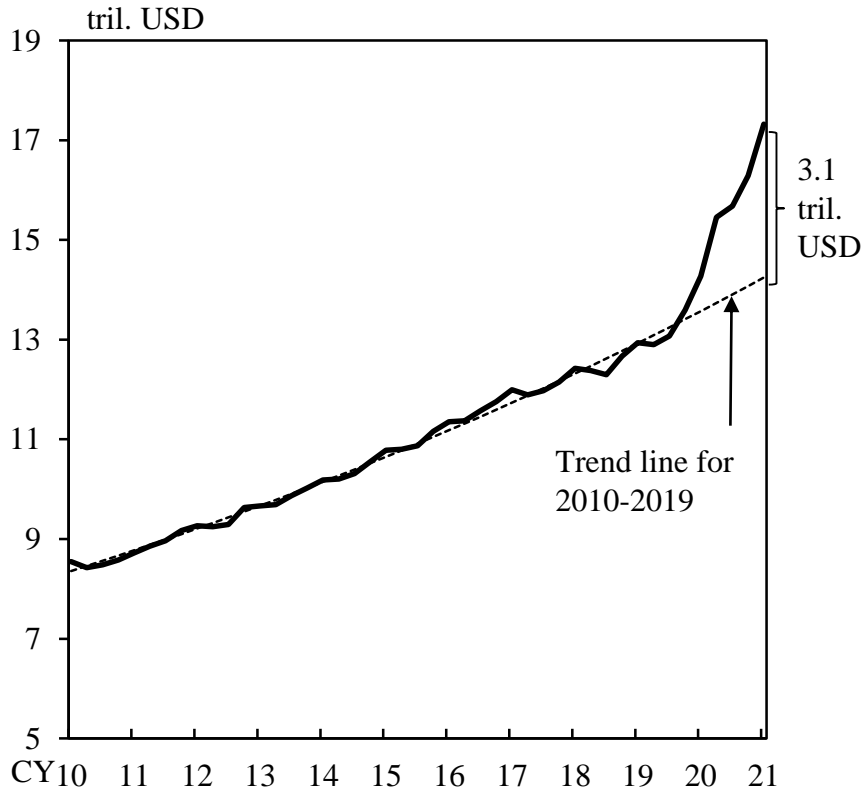
| | Real GDP | CPI (all items less fresh food) |
|---------------------------------|------------------------|---------------------------------|
| Fiscal 2021 | +3.5 to +4.0 [+3.8] | +0.3 to +0.6 [+0.6] |
| Forecasts made in April 2021 | +3.6 to +4.4 [+4.0] | 0.0 to +0.2 [+0.1] |
| Fiscal 2022 | +2.6 to +2.9 [+2.7] | +0.8 to +1.0 [+0.9] |
| Forecasts made in April 2021 | +2.1 to +2.5 [+2.4] | +0.5 to +0.9 [+0.8] |
| Fiscal 2023 | +1.2 to +1.4 [+1.3] | +0.9 to +1.1 [+1.0] |
| Forecasts made in April 2021 | +1.2 to +1.5 [+1.3] | +0.7 to +1.0 [+1.0] |

- Notes:
1. Figures in brackets indicate the medians of the Policy Board members' forecasts (point estimates).
 2. The forecasts of the majority of the Policy Board members are constructed as follows: each Policy Board member's forecast takes the form of a point estimate -- namely, the figure to which he/she attaches the highest probability of realization. These forecasts are then shown as a range, with the highest figure and the lowest figure excluded. The range does not indicate the forecast errors.
 3. The CPI forecasts in this table are based on the previous 2015-base index.

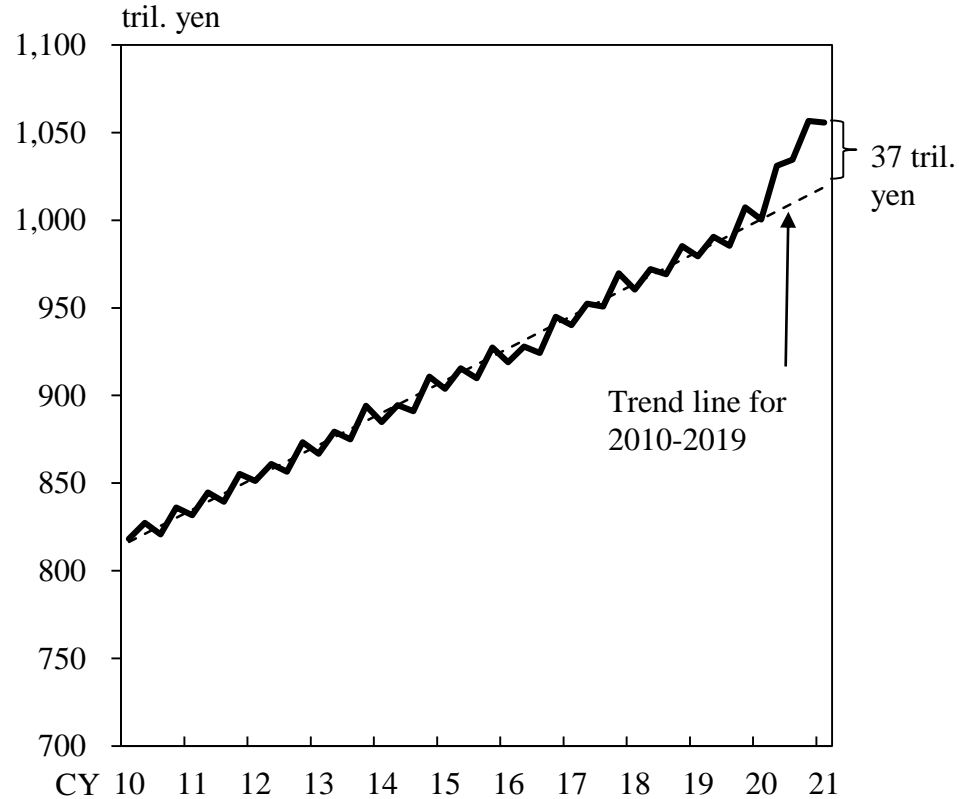
Source: Bank of Japan.

Cash and Deposits Held by Households

United States



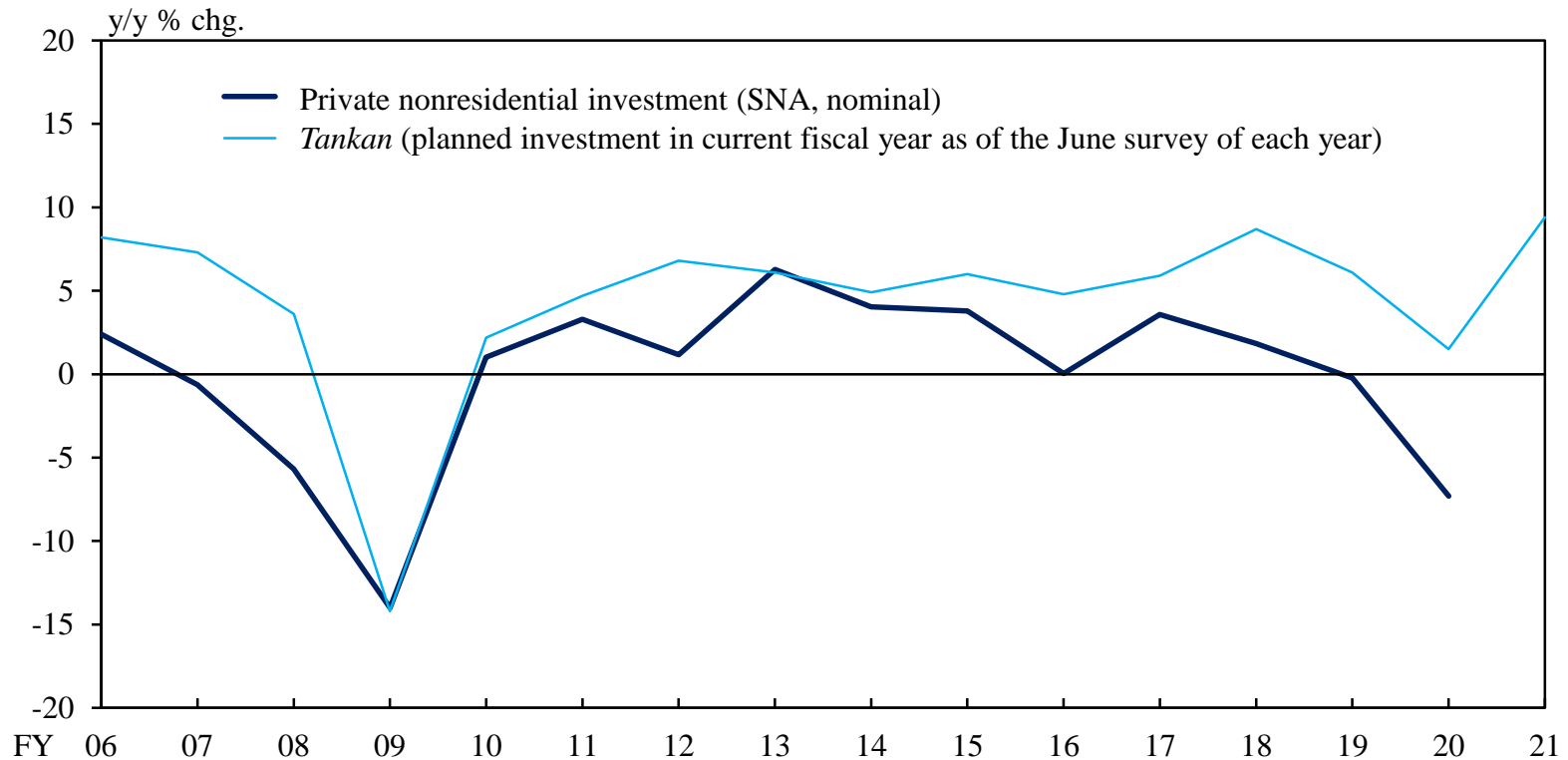
Japan



Note: The figures for the United States include MMF.

Sources: Federal Reserve; Haver; Bank of Japan.

Business Fixed Investment



Note: The *Tankan* figures include software and R&D investments and exclude land purchasing expenses. R&D investment is not included before the March 2017 survey. The figures are for enterprises of all sizes and in all industries including financial institutions.

Sources: Cabinet Office; Bank of Japan.

The Bank's Measures in Response to COVID-19

Supporting Corporate Financing

Special Program to Support Financing in Response to COVID-19

Purchases of CP and corporate bonds: amount outstanding of about 20 tril. yen at maximum (previous amount outstanding of about 5 tril. yen)

Special Funds-Supplying Operations to Facilitate Financing in Response to COVID-19

Stabilizing Financial Markets

Ample and Flexible Provision of Yen and Foreign Currency Funds

Active purchases of JGBs and T-Bills

U.S. Dollar Funds-Supplying Operations

Purchases of ETFs and J-REITs

ETFs: annual pace with an upper limit of about 12 tril. yen

J-REITs: annual pace with an upper limit of about 180 bil. yen

Fund-Provisioning Measure to Support Efforts on Climate Change

From a central bank standpoint, the Bank provides funds to financial institutions for investment or loans they make to address climate change based on their own decisions.

➔ Amid the uncertain external environment, it can respond flexibly to changes in circumstances while avoiding direct involvement in micro-level resource allocation as much as possible.

Eligible Counterparties
Eligible Investment/Loans



Counterparties make investment/loans based on their own decisions. Discipline will be exercised through a certain level of disclosure.

- **Financial institutions that disclose a certain level of information** on their efforts to address climate change
- Of the **investment/loans** made by counterparties as part of their efforts, those **that contribute to Japan's actions to address climate change**

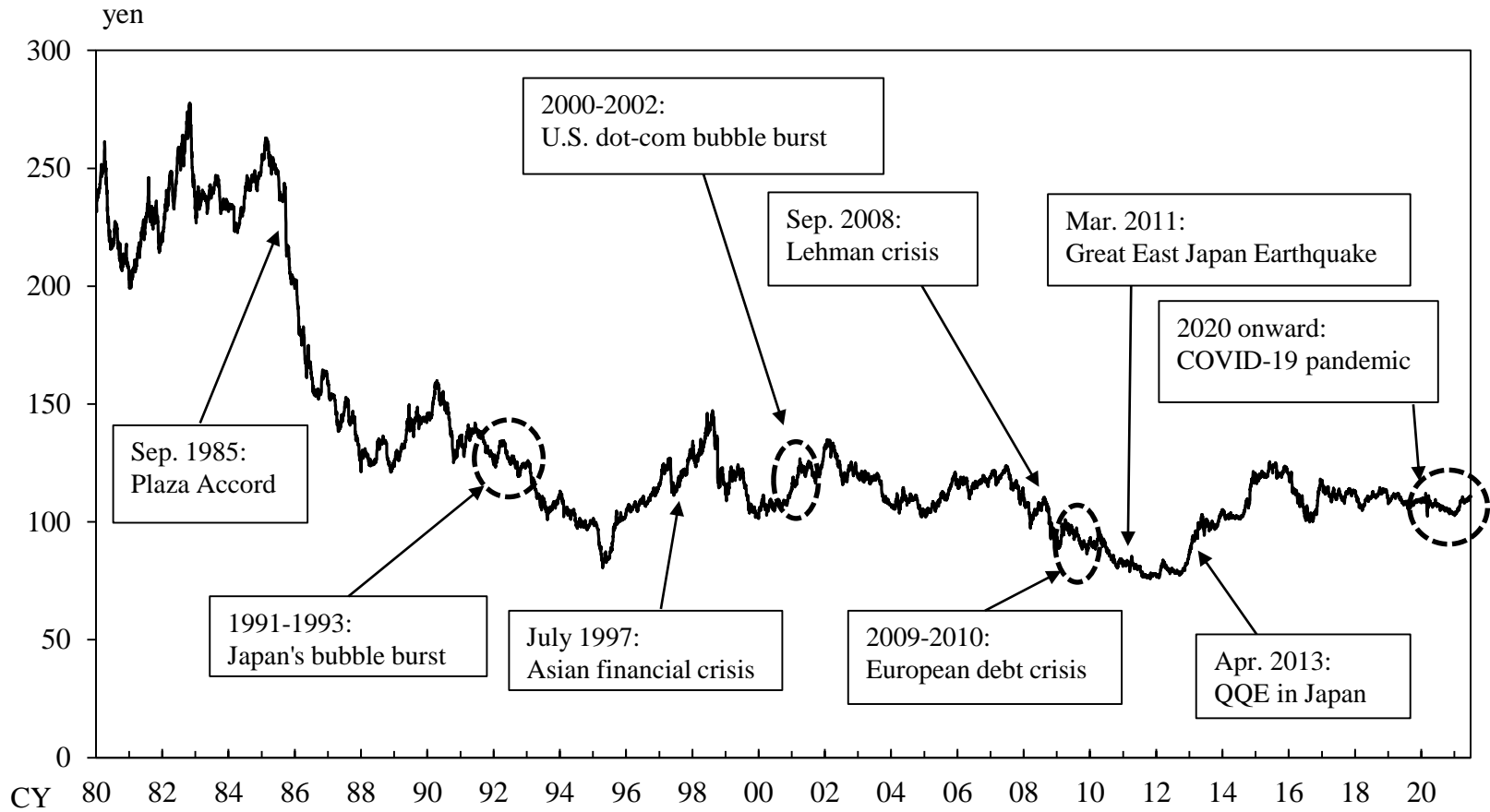
Terms and Conditions



Long-term support for financial institutions' efforts

- Interest rate: **0%** -- The measure will fall under Category III (applied interest rate: 0%) in the Interest Scheme to Promote Lending
- **Twice as much as the amount outstanding of funds that counterparties receive will be added to the Macro Add-on Balances in their current accounts at the Bank**
- Duration of fund-provisioning: 1 year, rollovers can be made until the end of the implementation period
→ **Effectively, counterparties can receive long-term financing from the Bank**
- Implementation period: in principle, **until the end of fiscal 2030**

U.S. Dollar/Yen



Note: QQE denotes quantitative and qualitative monetary easing.

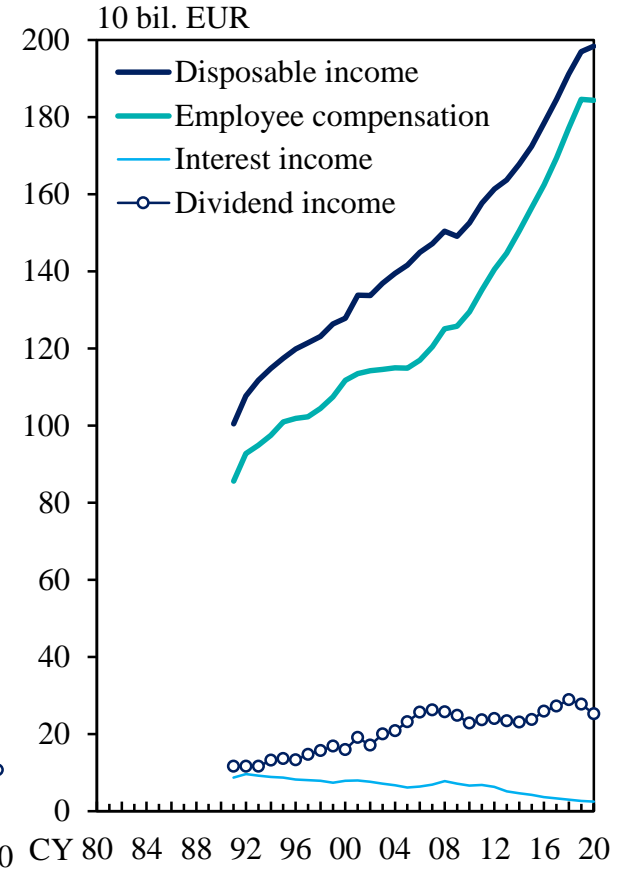
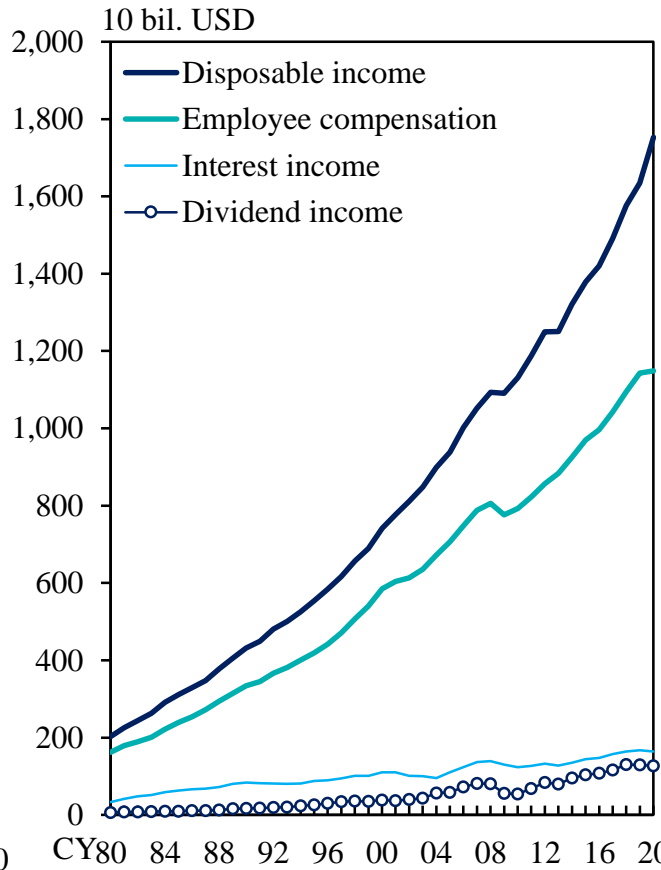
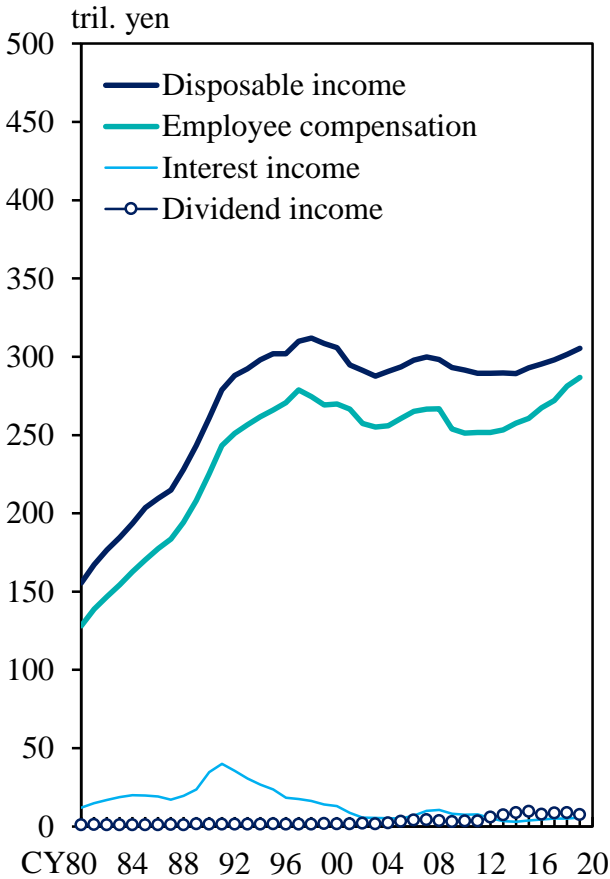
Source: Bloomberg.

Household Disposable Income

Japan

United States

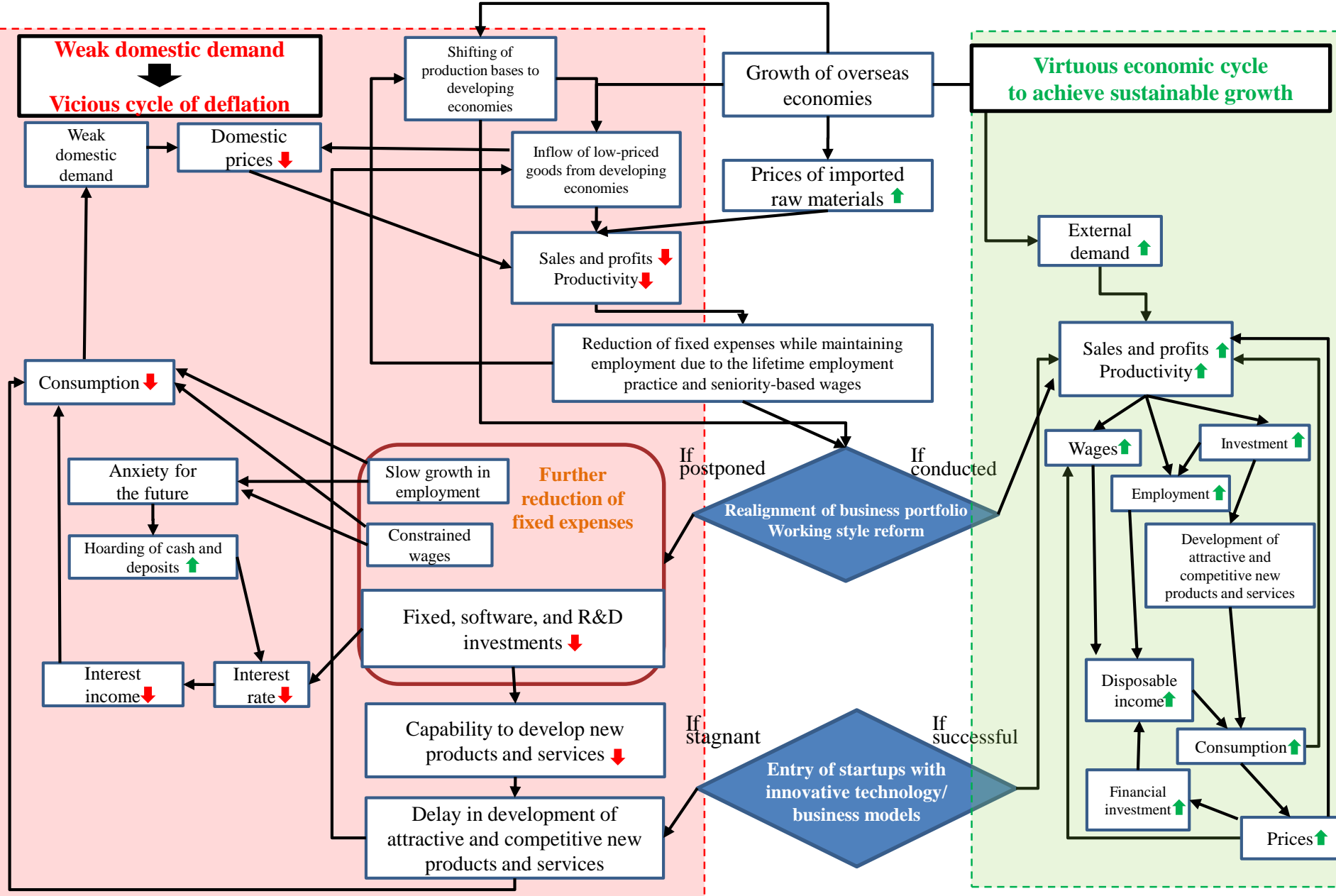
Germany



Notes: 1. Figures for Japan before 1993 are calculated using year-on-year changes in each item in the 2000 System of National Accounts.
 2. Figures for interest income and dividend income in Germany are "other interests, rents" and "distributed income of corporations," respectively.

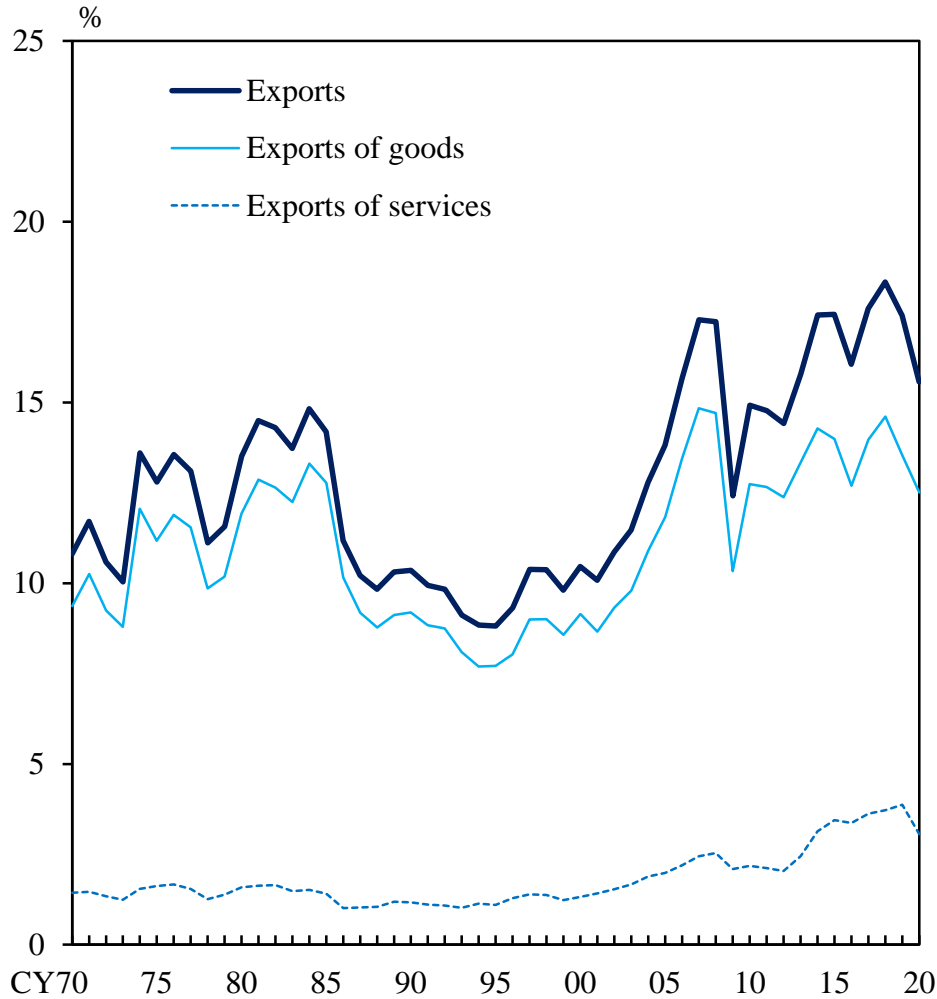
Sources: Cabinet Office; Bureau of Economic Analysis; Statistisches Bundesamt.

Vicious Cycle of Deflation and Virtuous Economic Cycle from Firms' Viewpoint

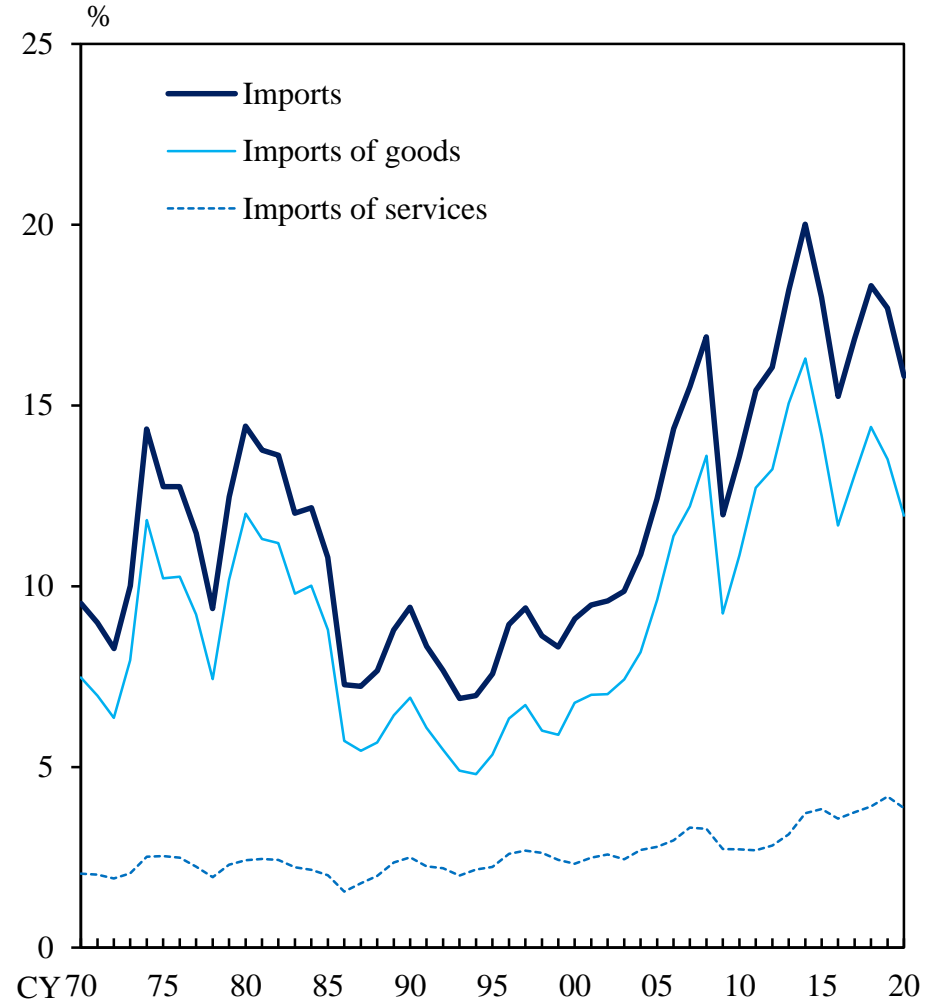


Share of Exports and Imports in Nominal GDP

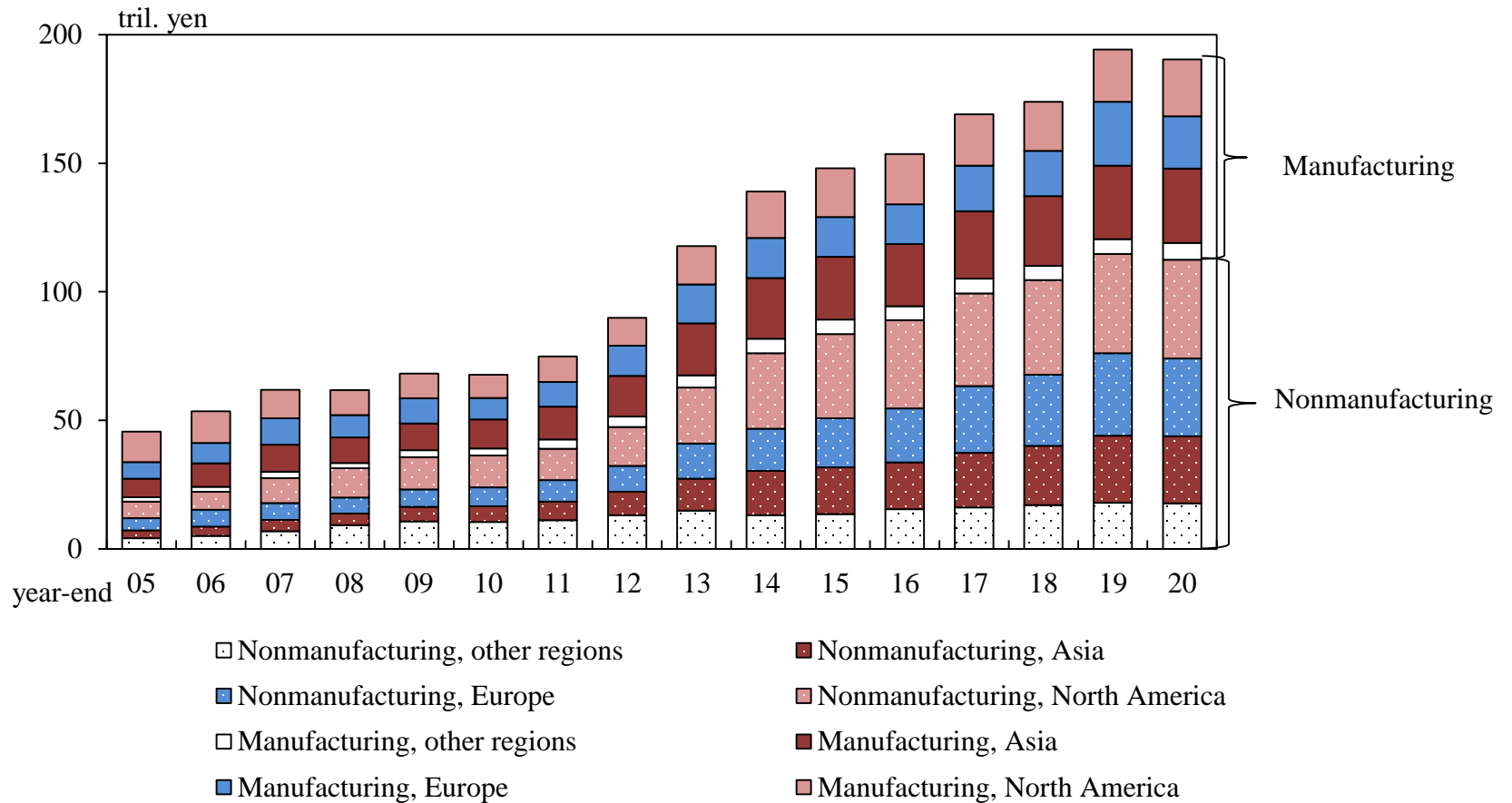
Exports



Imports



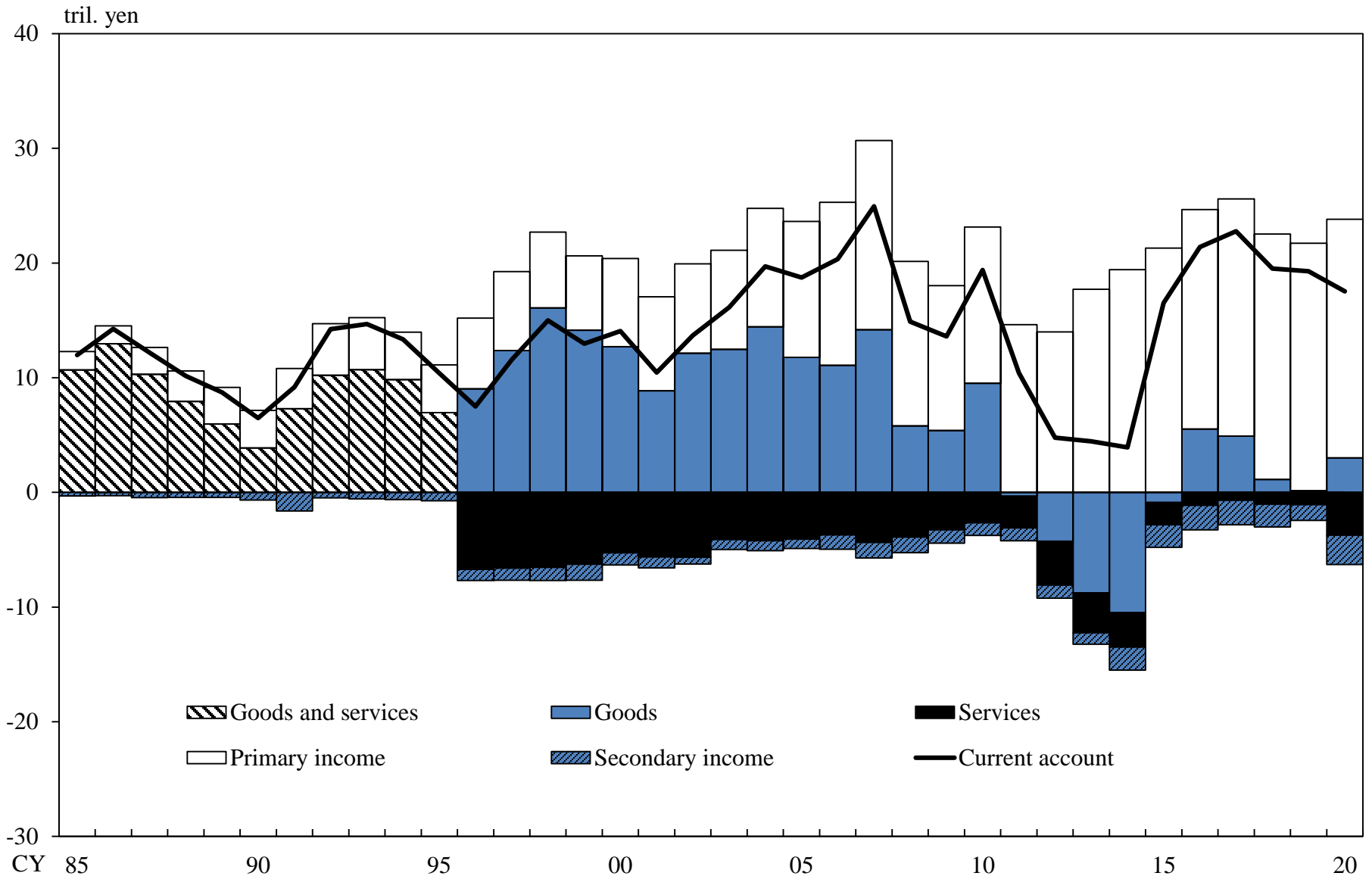
Outward Direct Investment Position



Note: Figures are based on the directional principle. These include investments from a parent company located in Japan to its overseas affiliates.

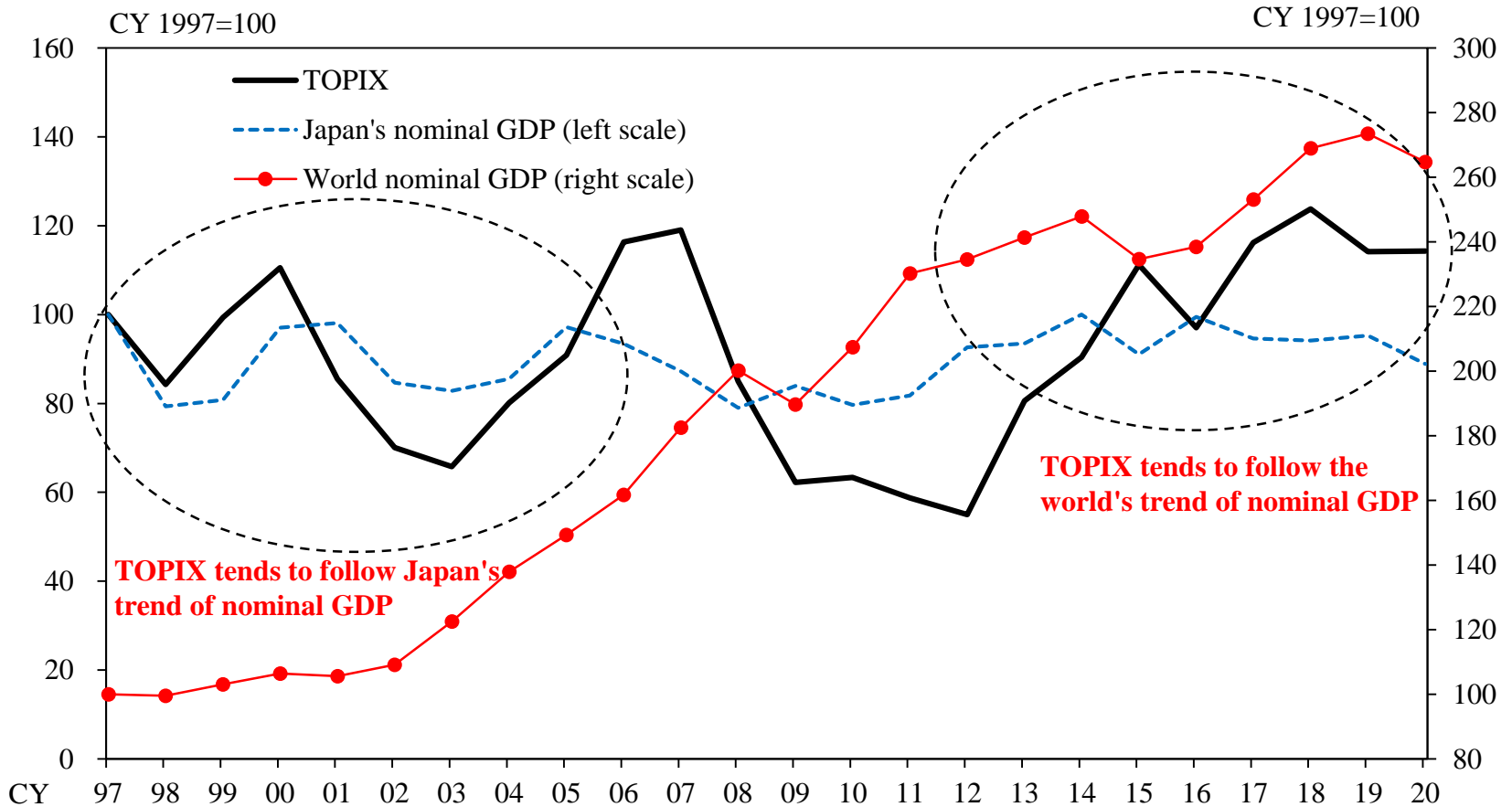
Sources: Ministry of Finance; Bank of Japan.

Current Account



Sources: Ministry of Finance; Bank of Japan.

TOPIX

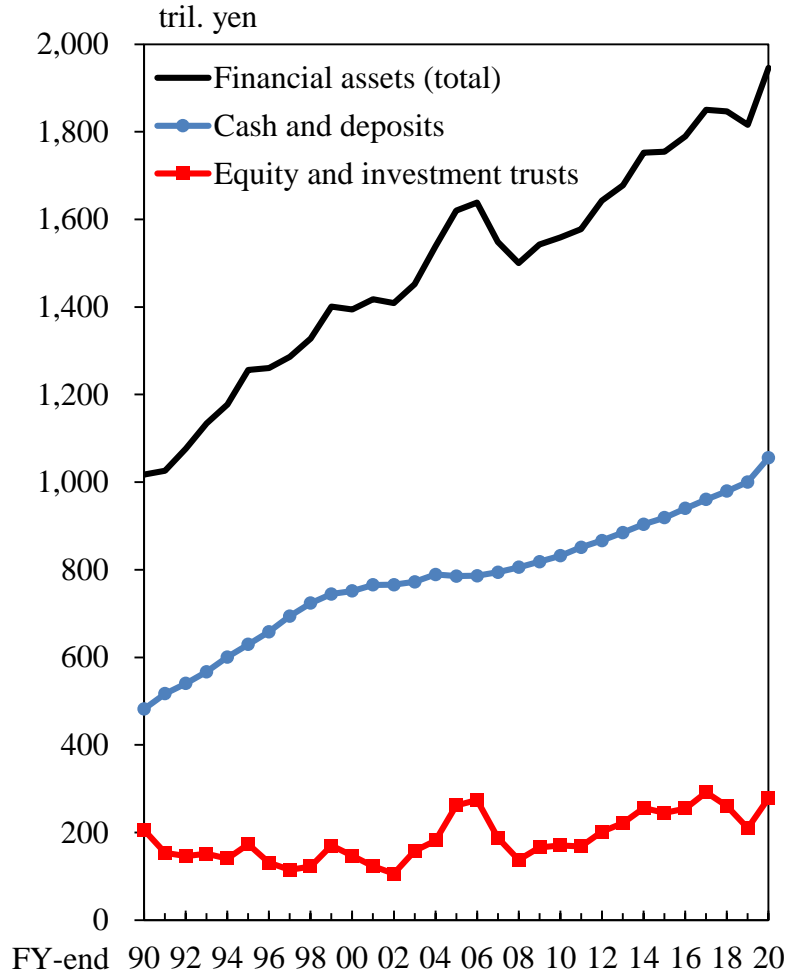


- Notes: 1. Figures for the world's nominal GDP are based on values denominated in U.S. dollars.
 2. Figures for Japan's nominal GDP are based on values denominated in Japanese yen.
 3. Figures for TOPIX are calculated from yearly averages.

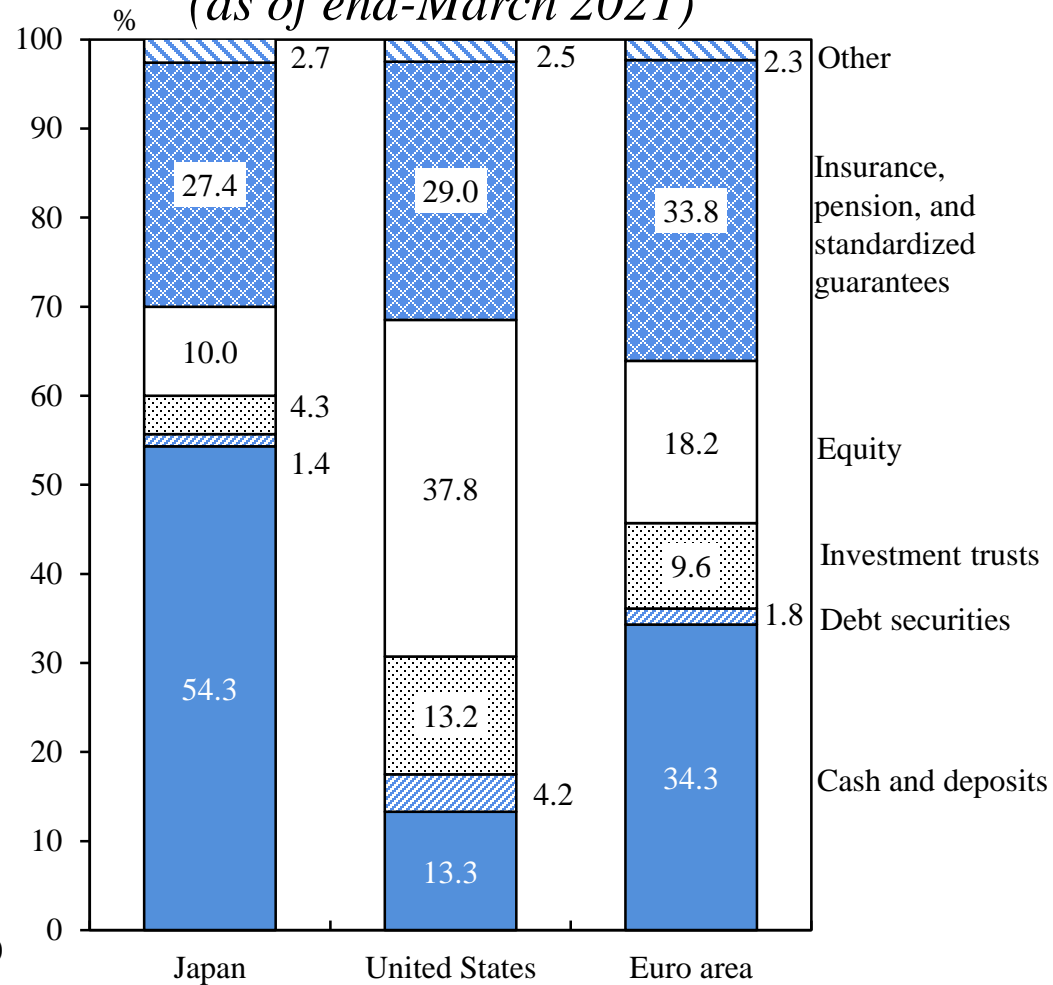
Sources: IMF; Bloomberg.

Household Financial Assets

Japan



International Comparison (as of end-March 2021)

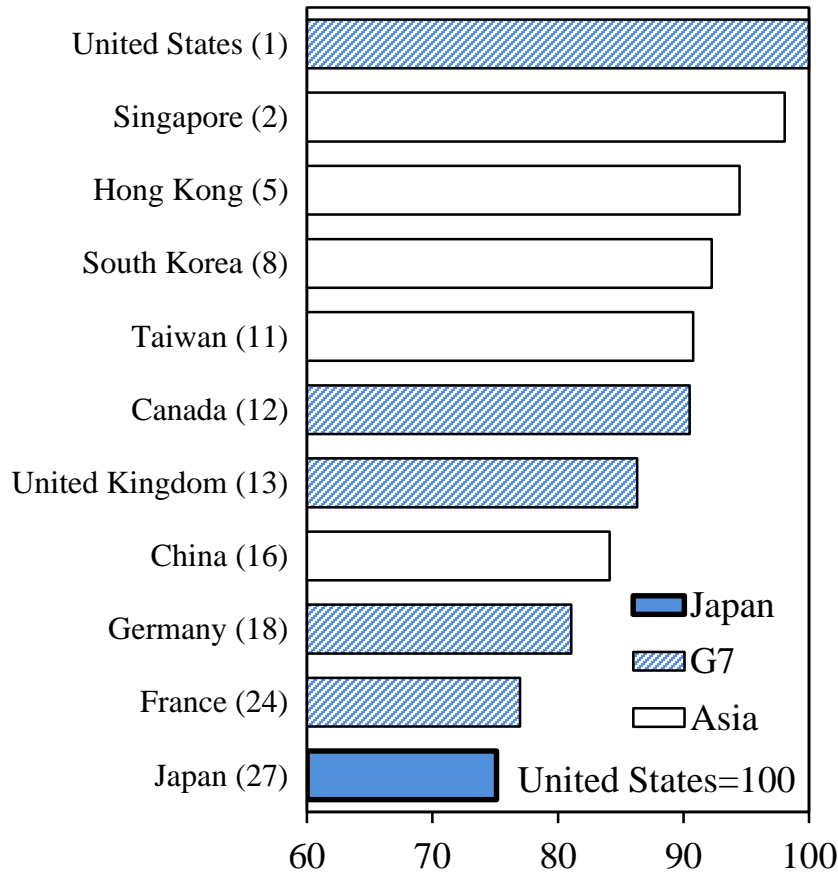


Note: In the right panel, "Other" is the residual after deducting "Cash and deposits," "Debt securities," "Investment trusts," "Equity," and "Insurance, pension, and standardized guarantees" from total financial assets.

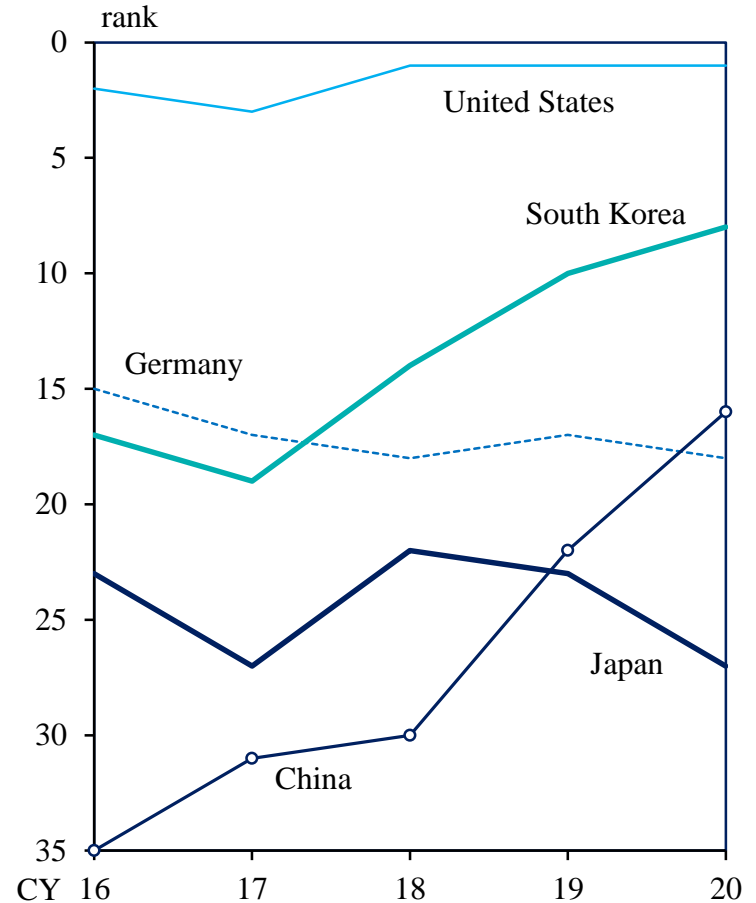
Sources: Bank of Japan; Federal Reserve; European Central Bank.

IMD World Digital Competitiveness Ranking 2020

Overall Score for 2020



Ranking

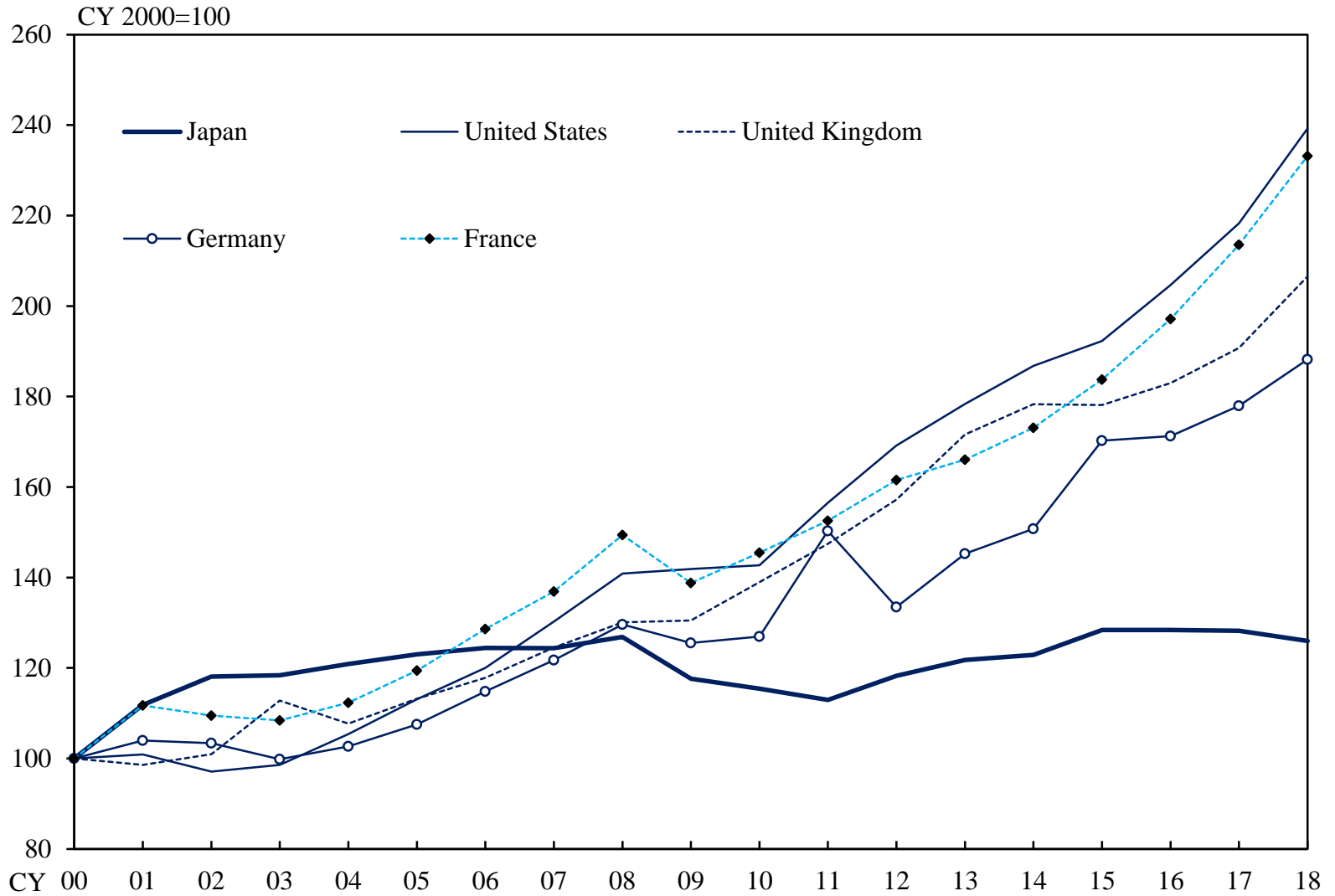


Notes: 1. The overall scores are calculated based on three factors: knowledge, technology, and future readiness, which represents the level of preparedness for digital transformation. Each factor contains three sub-factors, and the nine sub-factors comprise 52 criteria.

2. In the left panel, figures in parentheses indicate the ranking of the economy out of all 63 economies analyzed.

Source: IMD.

Software Investment



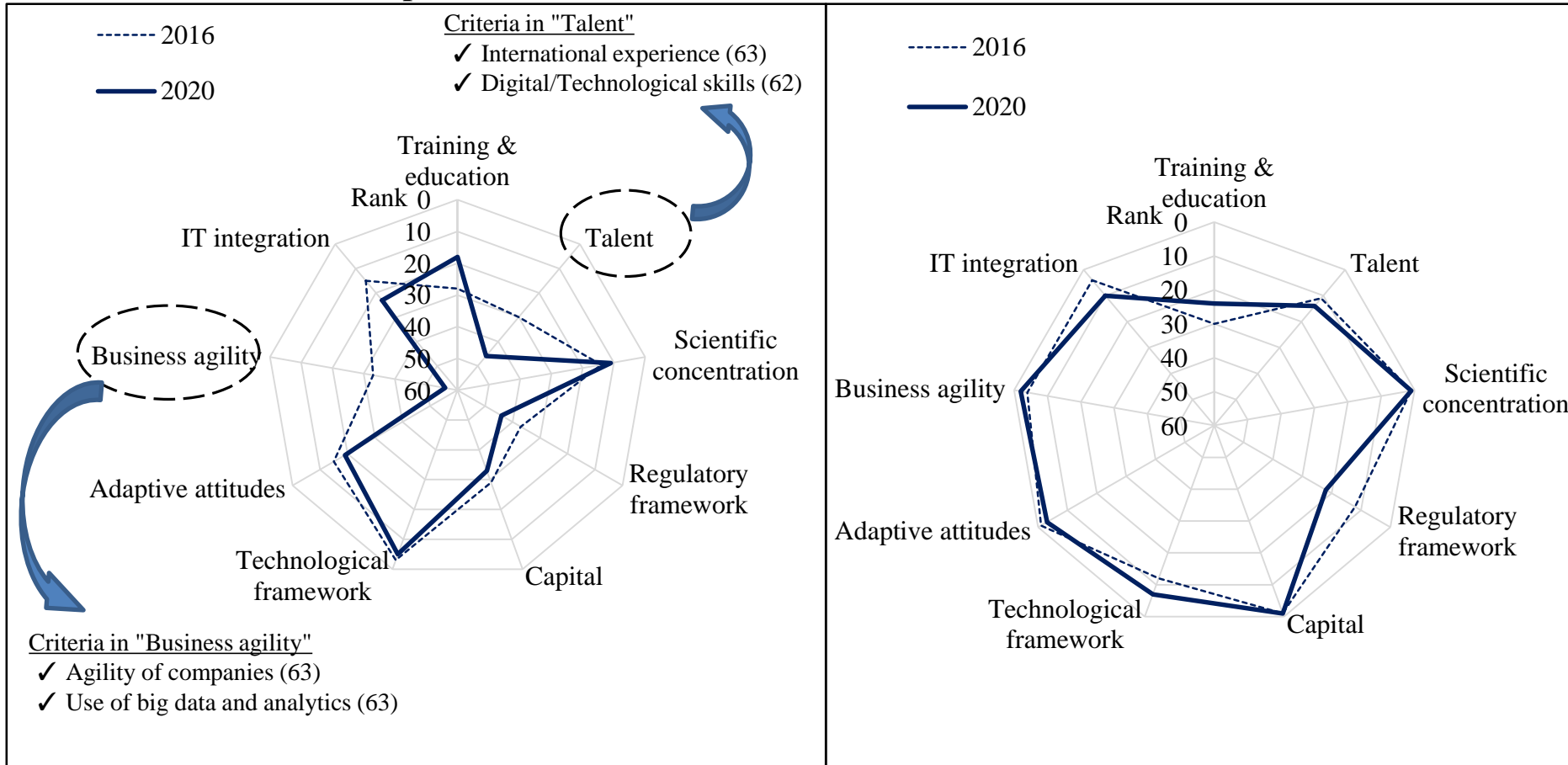
Note: Figures are based on nominal values denominated in local currencies.

Source: OECD.

Comparison of Digital Competitiveness between Japan and the United States

Japan

United States



Notes: 1. "Training & education," "Talent," and "Scientific concentration" are sub-factors of knowledge. "Regulatory framework," "Capital," and "Technological framework" are sub-factors of technology. "Adaptive attitudes," "Business agility," and "IT integration" are sub-factors of future readiness.

2. In the left panel, figures in parentheses indicate the ranking of Japan out of all 63 economies analyzed.

Source: IMD, "World Digital Competitiveness Ranking 2020."

The Bank's Strategy on Climate Change

- Climate change is a global challenge and could have a broad impact into the future.
- Various entities in society and the economy need to actively play their roles.



The Bank, with an intention of furthering its efforts on climate change consistent with its mandate of achieving price stability and ensuring the stability of the financial system, decided the comprehensive strategy.

Monetary
policy

Financial
system

Research

International
finance

Operations
&
communication

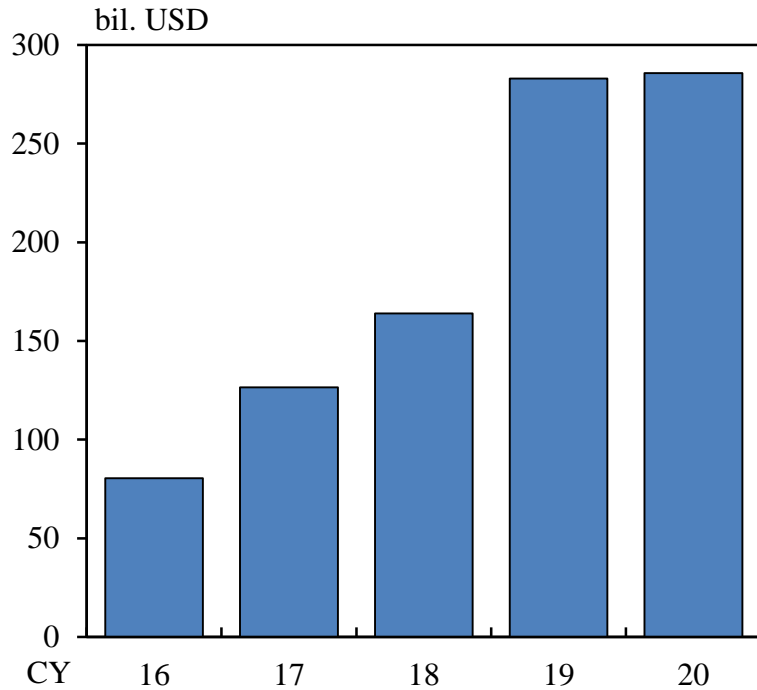


The impacts of climate change on economic activity, prices, and the financial system are highly uncertain and could greatly vary over time.

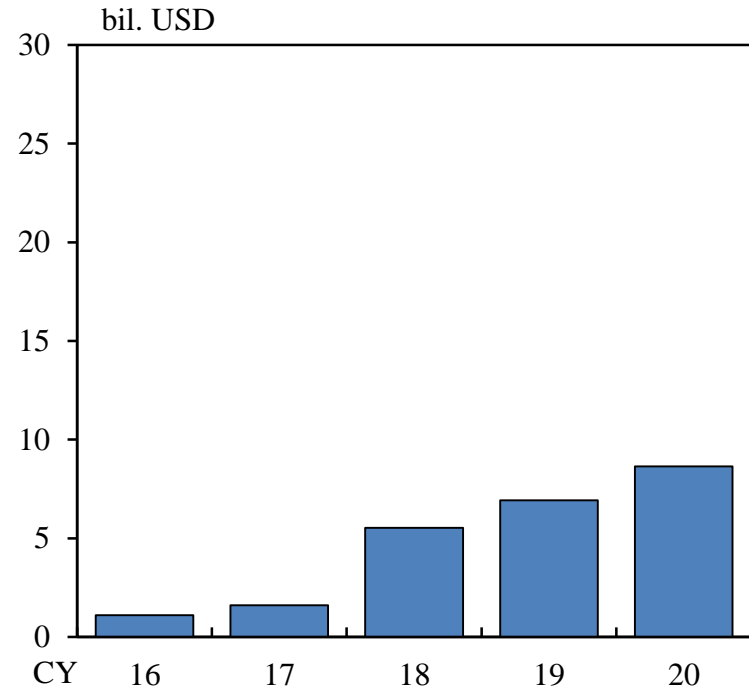
➔ The Bank will constantly review its measures and make adjustments where needed.

Green Bond Issuance

World



Japan



Notes: 1. Figures include any type of self-labeled fixed income instruments where the proceeds will be directed exclusively to financing or refinancing, in part or in full, of new and/or existing green projects.
 2. Green bonds encompass commercial papers, certificates of deposit, and sukuk.

Source: IMF.