

## The rise in sovereign bond yields in Japan reflects a shift in the growth model

29/06/2025

Confidential

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### Summary

*Japanese bonds have recently attracted attention due to a sharp rise in long-term government borrowing rates. While Japanese public debt is among the most liquid assets in the world, auctions of long-term bonds saw particularly weak demand in May.*

*Three interrelated events explain this rise in Japanese bond yields: rising inflation, with the Japanese economy having been on the brink of deflation since the 1990s; the Bank of Japan's monetary policy shift, with interest rates rising since 2024 and fewer government bonds being purchased; fears of spiraling public deficits, with the government under pressure from the opposition and its majority in Parliament to protect purchasing power in the face of rising prices.*

*The Japanese growth model could ultimately be called into question by the sustained return of inflation and rising interest rates, which nevertheless remain the expected outcomes of the economic policy adopted by the central bank and the government to lift the Japanese economy out of the deflationary risks that have weighed on it for three decades. Indeed, both Japan's current account balance and public debt growth depend on carry trade mechanisms, i.e., the use of low domestic bond yields to borrow at the lowest rates and invest in higher-yielding foreign assets.*

*Furthermore, with an external position of around \$10.65 trillion, Japan is the world's second largest creditor. The recent rise in Japanese interest rates, if sustained, could prompt Japanese investors to turn to their domestic financial markets and destabilize those markets most dependent on Japanese capital flows. India, Australia, and the United States are the economies most exposed to portfolio investment from Japan. However, these investments are often volatile and tend to undergo frequent short-term trend changes. Several countries in Asia (Thailand, the Philippines, South Korea, Indonesia, Malaysia, and India) and Oceania (Australia) are highly dependent on direct investment from Japan. As this type of financing is generally more stable, the risk of it drying up is medium-term.*

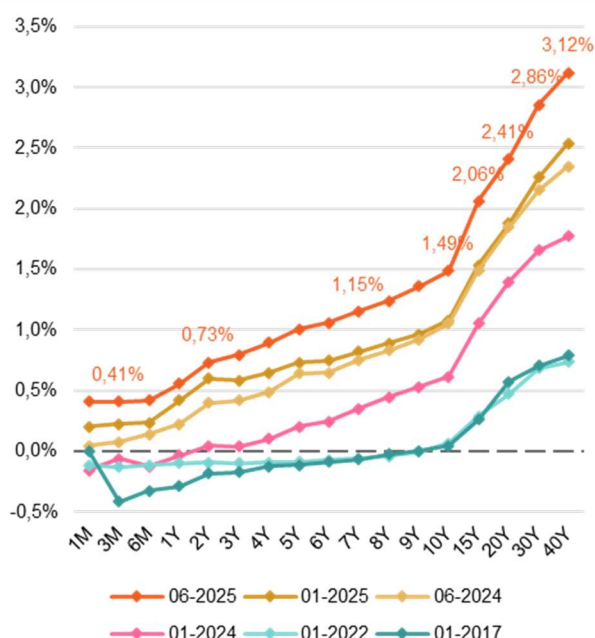
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# 1. In Japan, rising sovereign interest rates and inflation have gone hand in hand since 2022

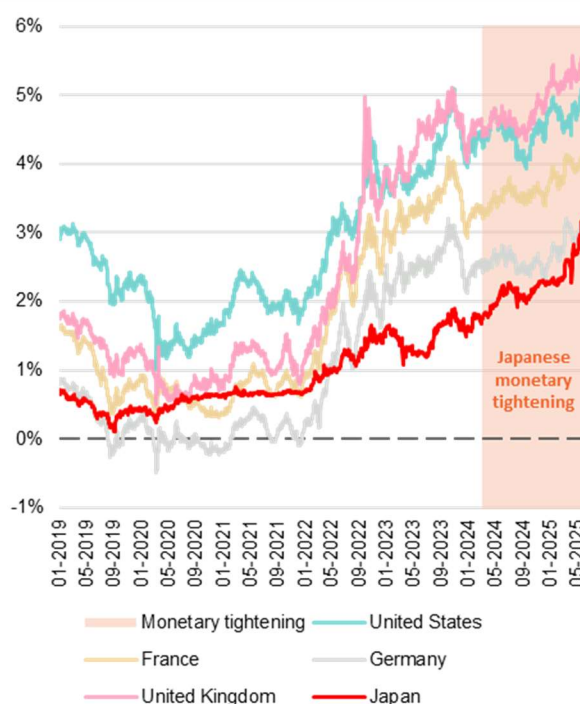
## 1.1. The Japanese bond market has seen a rise in long-term yields since 2022

**The cost of borrowing long-term Japanese government debt on the bond markets reached its highest level for two decades this year.** Having already been on an upward trend since 2022, in the wake of the world's major bond markets, the Japanese government bond market saw its long-term yields catch up with benchmark German and US yields in 2024 (see chart 2). This is not the first time that Japanese long-term yields have reached levels comparable to German yields: this was already the case during the period of quantitative easing policies conducted by Western central banks between 2015 and 2022. But during this period, this catching-up was achieved through a fall in rates in the rest of the world, not a rise in Japanese rates. Thirty-year government bond spreads narrowed by 72 basis points with the German *bund* and by 58 bp with US Treasuries between March 2024 and June 2025.

**Figure 1 – Yield curve for Japanese government bonds**

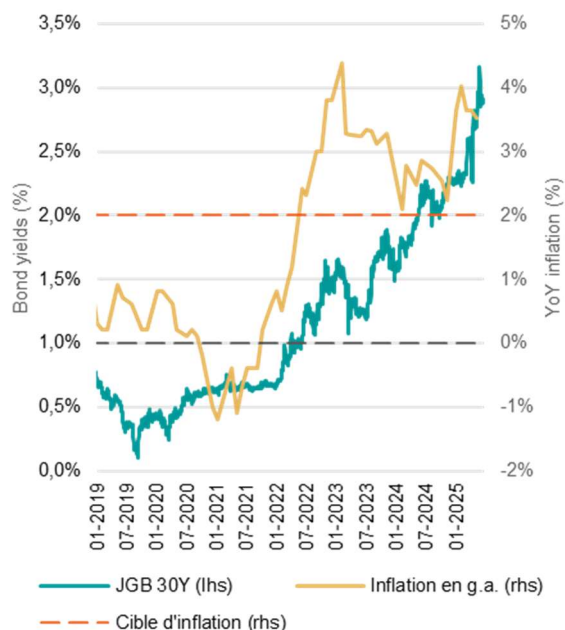


**Figure 2 – 30-year sovereign bond yields**

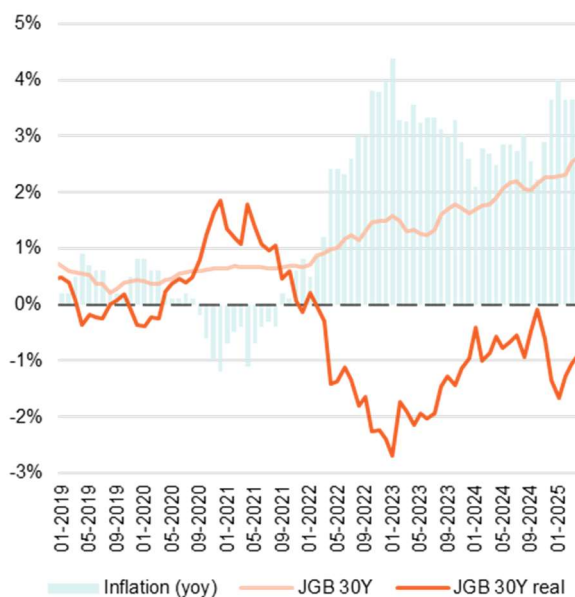


Source: Bloomberg.

**Figure 3 – Inflation and long-term bond yields (30 years)**



**Figure 4 – Real yield on long-term government bonds**



Sources: Bloomberg, Bank for International Settlements, GSA calculations.

Note: The real yield is obtained from the Fisher relation  $\frac{1+r_{nominal}}{1+\pi} - 1$

## 1.2. The gradual end of expansionary monetary policy and its effects on sovereign interest rates

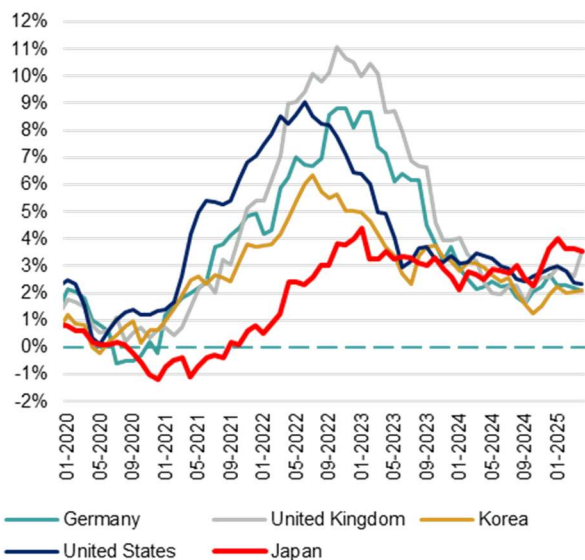
Since the property crisis of the early 1990s, the Japanese economy has not experienced sustained inflation around the central bank's target (2%), apart from three slight cyclical peaks<sup>1</sup>. From the second half of 2021, the post-pandemic recovery led to tensions in supply chains, which were reflected in prices. This was compounded by higher gas prices, mainly due to the outbreak of war between Ukraine and Russia in February 2022. These inflationary pressures first affected the European and North American economies, before spilling over to Japan from the first half of 2022, via two channels: 1) these tensions in the supply chains and the rise in gas prices led to an increase in imported inflation; 2) the increases in the key rates of the main central banks in the developed economies, while the Bank of Japan maintained a negative rate, contributed to the depreciation of the yen, which made Japanese imports more expensive.

The Bank of Japan waited almost two years after inflation first exceeded its target, in April 2022, before raising its main policy rate. It raised its key rate for the first time in seventeen years in three stages: from -0.10% to 0.05% in March 2024, then to 0.25% in August, before reaching 0.50% in January 2025. After several decades of price stagnation, the central bank has stuck to a gradual and cautious approach to enable the Japanese economy to return to a rate of inflation that is permanently far from zero. From 2022 onwards, Japanese companies passed on part of their rising costs in their selling prices, prompting workers to demand higher wages. This price-wage loop has been maintained and has partly transformed the exogenous inflationary push from rising costs into endogenous, demand-led inflation. Nominal wages thus rose by 9.75% between January 2022 and April 2025, whereas they had hardly risen since the early 1990s<sup>2</sup>, and annual inflation, which has not fallen below the 2% target since April 2022, was still 3.5% in April 2025.

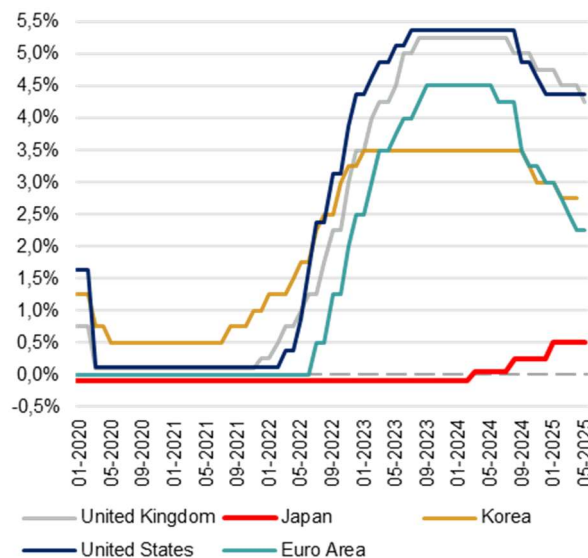
<sup>1</sup> At the time of the economic and financial crises of 1997 and 2008, then as a result of a VAT increase in 2014.

<sup>2</sup> E-Stat data, GSA calculations.

**Figure 5 – Year-on-year inflation rate**



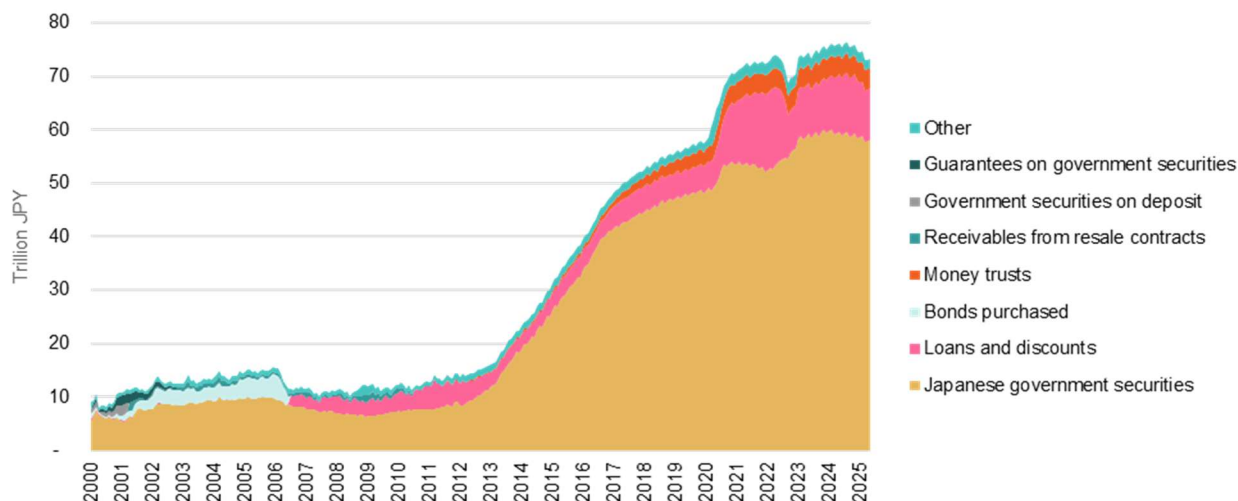
**Figure 6 – Central bank key rates**



Source: Bank for International Settlements (BIS).

By December 2022, it had relaxed its control over the sovereign yield curve, notably by doubling the fluctuation range for ten-year bond yields. And from 2024, it began to reduce its participation in the bond market: while continuing to acquire government bonds, it reduced its purchases at a rate of 400 billion yen per quarter, which will correspond to a halving of its purchases between August 2024 and March 2026, to reach 3,000 billion yen per quarter<sup>3</sup>. The Bank of Japan's balance sheet should therefore be reduced by 8% between its March 2024 level and its March 2026 level.<sup>4</sup>

**Figure 7 – Bank of Japan assets (JPY trillion)**



Source: Bank of Japan.

**The reduction in the balance sheet of the Bank of Japan, which holds 52% of Japanese sovereign bonds, is leading to a reduction in demand on the market, which must be offset by other players in order to stabilise interest rates.** Nevertheless, banks and, in particular, life insurance funds have also tended

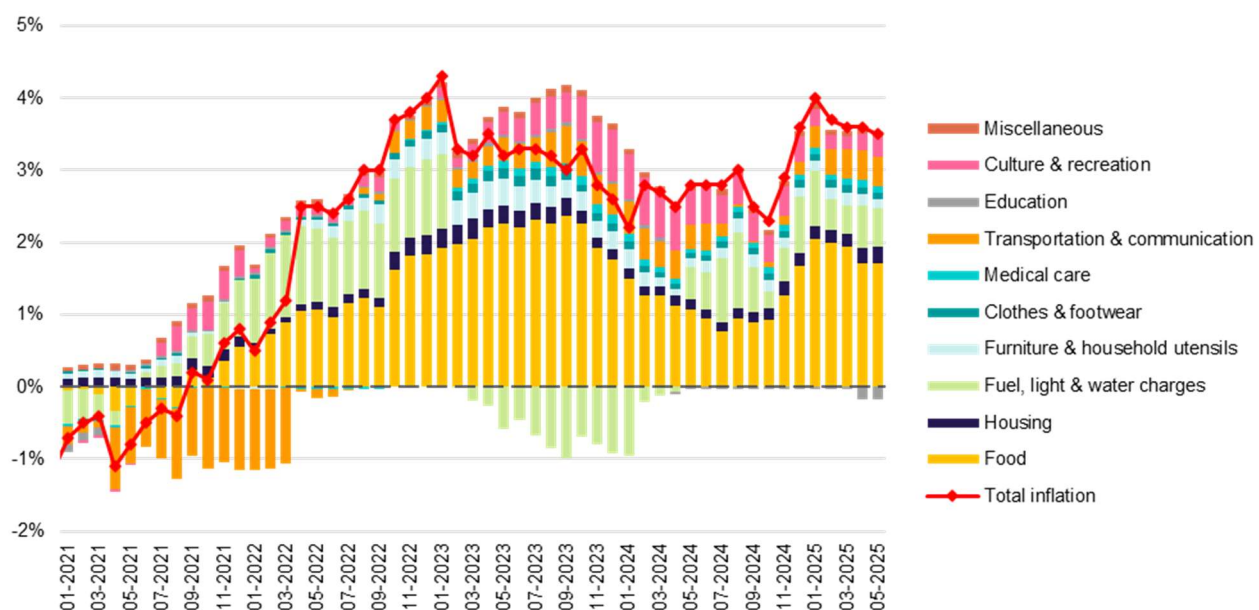
<sup>3</sup> Japan's Bond Chaos Heralds More Volatility in Global Markets, *Bloomberg*, 16/06/2025.

<sup>4</sup> Japan's fiscal woes put BOJ bond taper plans to test, *Reuters*, 15/05/2025.

to reduce their holdings of long-term bonds<sup>5</sup>. The fall in the price of long-term government bonds<sup>6</sup> has led to a significant increase in unrealised losses for insurers and banks. The renewed volatility of the Japanese bond market has therefore prompted banks and insurers to reduce their exposure. In addition, the sudden sharp rise in yields on long-term Japanese bonds, by making it more difficult to anticipate the level at which the market will stabilise, has also contributed to limiting the intervention of foreign hedge funds, which normally compensate for the lack of demand on the financial markets to take advantage of the undervaluation of assets.

**The simultaneous reduced appetite of the central bank, private banks and life insurance funds thus weighed on demand for long-term bonds**, to the point of leading to the failure of an auction of 20-year government bonds on 20 May 2025. An auction of 40-year bonds was then met with the lowest demand for ten months on 28 May. To make up for this lack of demand for Japanese government bonds, the Ministry of Finance announced that it would be reducing its issuance of very long-term bonds in favour of shorter maturities.

**Figure 8 – Breakdown of Japanese inflation (year-on-year)**



Source: Statistics of Japan, GSA calculations.

1.3. The rise in inflation, by weighing on the purchasing power of Japanese consumers, has created volatility on the financial markets.

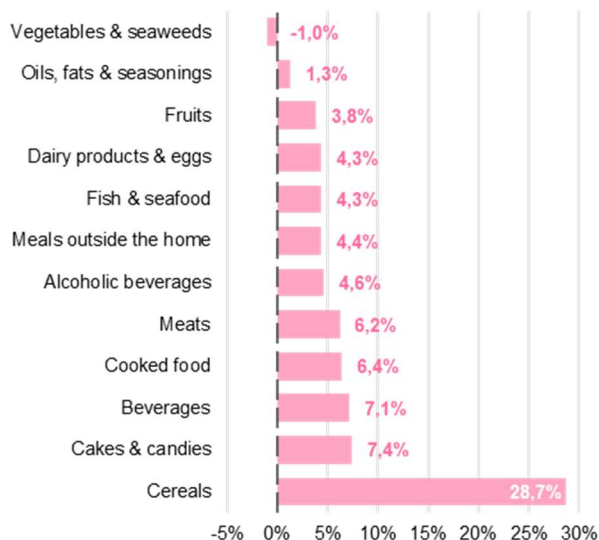
**This rise in inflation has contributed to increased tensions within Japanese companies. The financial markets were therefore concerned about the pressure being put on the government to protect household purchasing power, at the expense of balancing the budget.** Although nominal wages have risen for the first time in thirty years, these increases have remained below inflation, to the extent that **real wages fell by 6.5% between January 2022 and April 2025**. Price rises have hit food in particular, and cereals in particular (including rice, which accounts for a fifth of the average calorie intake of the Japanese population), where prices have risen by 28.7% in one year. Against this backdrop of concern about the rapid rise in prices compared with the speed of wage adjustments, the parliamentary opposition and majority are putting pressure on the Japanese government to reduce consumption taxes before the upper house elections in July 2025. **Against this tense political and budgetary backdrop, the Prime Minister's comparison of the state of Japan's public finances with those of Greece in 2012, together with the promise of an increase in**

<sup>5</sup> Japan's Nippon Life Insurance Says Unrealized Bond Losses Tripled, *Bloomberg*, 23/05/2025.

<sup>6</sup> An increase in a bond's yield corresponds to a decrease in its price.

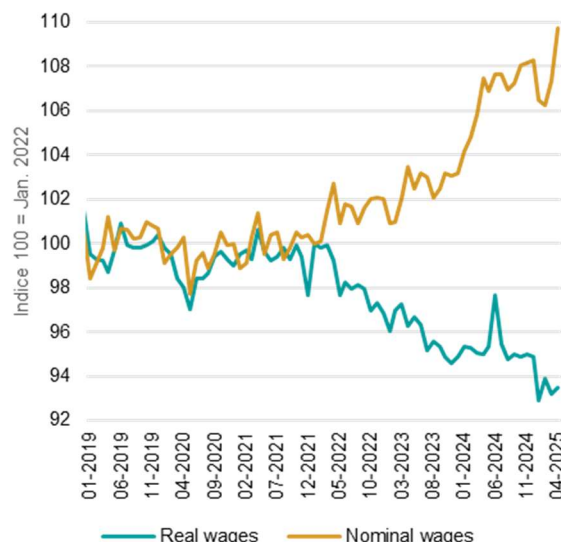
benefits for households and families amounting to 0.5% of GDP, heightened the anxiety of the financial markets and contributed to the rise in bond yields in May and June 2025.

**Figure 9 – Food inflation**  
(May 2025, year-on-year)



Source: Statistics of Japan, GSA calculations.

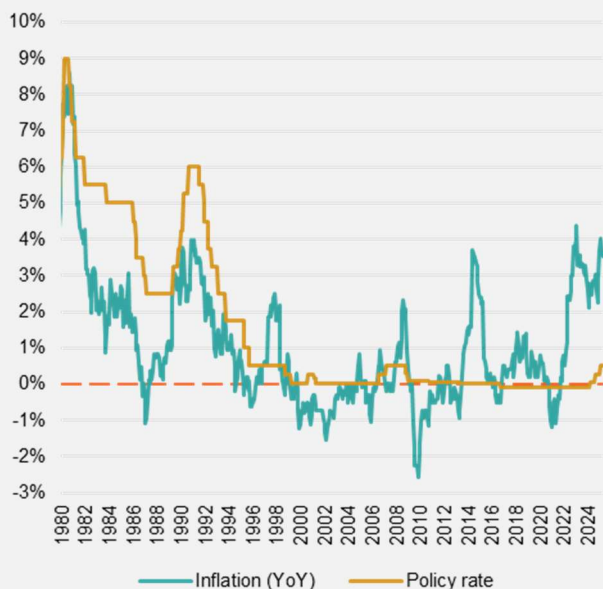
**Figure 10 – Change in nominal and real wages in Japan**



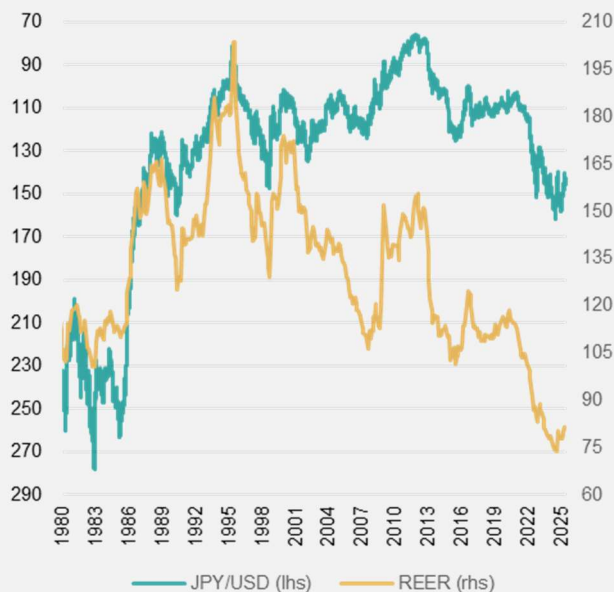
### **Box: The impact of the 'lost decade' on Japan's economic policies**

**Low inflation over the last three decades, low interest rates and the monetary policy pursued by the Bank of Japan are long-term consequences of the economic and financial crises that hit Japan in the 1990s.** The Plaza Accord of 1985, which aimed to correct the appreciation of the US dollar following the second oil shock (1979) by depreciating the major international currencies, in particular the yen and the mark, against the dollar, led to a sharp appreciation of the yen. The low interest rate policy adopted by the Bank of Japan to curb the appreciation of the yen, combined with the financial deregulation of the 1980s, then encouraged the emergence of a speculative bubble, the bursting of which dragged the Japanese economy into a financial and economic crisis in 1991. This coincided with the start of a prolonged period of private sector deleveraging, which weighed on economic growth, consumption and private investment, leading to deflationary pressures from the 1990s onwards, fuelled by weak employment and wage growth prospects. The slowdown in inflation in the 1990s, followed by deflation in the 2000s, combined with the economic slowdown, weighed on companies' ability to repay debts, further slowing activity.

**Figure 11 – Inflation (year-on-year) and long-term key rate in Japan**



**Figure 12 – Japanese yen exchange rate**



Source: Bank for International Settlements (BIS).

To counter the risks of deflation and attempt to revive the Japanese export model by offering its companies a competitive price advantage through the depreciation of the yen, the Bank of Japan adopted a near-zero interest rate policy in 1995. This expansionary monetary policy soon came up against the "zero interest rate floor", below which the central bank cannot sustainably lower its interest rate, as low inflation does not allow real interest rates to be reduced sufficiently. This monetary policy, which has been pursued almost continuously since the mid-1990s, has complicated access to financing for many healthy companies and weighed on Japanese growth, by pushing Japanese banks to finance "zombie companies", i.e. companies that are not very productive but benefit from low interest rates to refinance themselves and stay alive.

Since his election in 2012, Prime Minister Shinzo Abe has pursued an economic policy inspired by the work of Koichi Hamada (Professor of Economics at Yale University) and Etsuro Honda (Director of the Ministry of Finance's Institute for Public Policy Research), based on three pillars: a highly accommodating monetary policy; a flexible fiscal policy; and structural reforms aimed at creating a supply shock (notably by increasing the labour market participation rate).

#### 1.4. Rising interest rates could reduce the current account surplus generated until now by recurrent primary income from FDI

**Thanks to the competitiveness of its exports until the early 2010s, and then to the spread between domestic and foreign interest rates, the Japanese economy has built up a large external surplus, generating enough primary income to offset the deficit in its export sector since the early 2010s.**

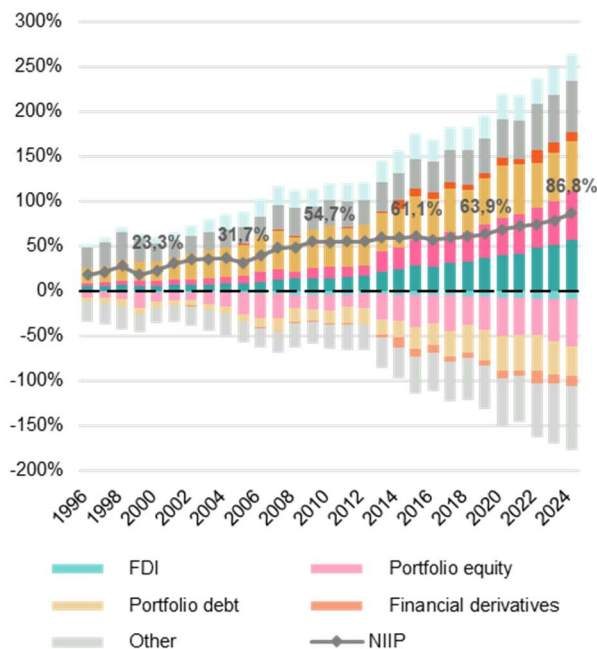
Japan's trade balance is now slightly negative, for four reasons:

- As Japan is in an advanced stage of demographic ageing, the composition of its population, i.e. the increase in the proportion of senior citizens, is increasing the rate of consumption, and therefore of imports, and reducing the rate of savings, and therefore the capacity to invest in export industries.
- Japanese companies have relocated part of their production abroad, which certainly generates primary income linked to their investments, but reduces their exportable domestic production capacity.
- The increase in investment income provides the population with additional income that can be used to import products that are not produced domestically.
- Since the destruction of the Fukushima nuclear power plant and the halting (gradually resumed) of Japan's nuclear programme, Japan has significantly increased its energy imports - the gradual restarting of nuclear power plants since 2015 could nevertheless return the trade balance to surplus levels).

**This deterioration in the trade balance is offset by the increase in primary income, which keeps the current account surplus at around 3 to 4% of GDP.** The widening of the primary income surplus is the result of an increase in income from the growth in the net international investment position (NIIP), which makes Japan the world's second largest creditor, behind Germany. This income is mainly made up of investment income, buoyed by the "exorbitant privilege" conferred on Japanese investors by the sustained spread between domestic and foreign interest rates, particularly in the United States. This spread enables them to borrow at low rates on the domestic credit markets, in order to invest at higher rates abroad. This "*carry trade*" strategy is all the more effective when the interest rate differential is high and the exchange rate is stable (or when the domestic currency is depreciating).

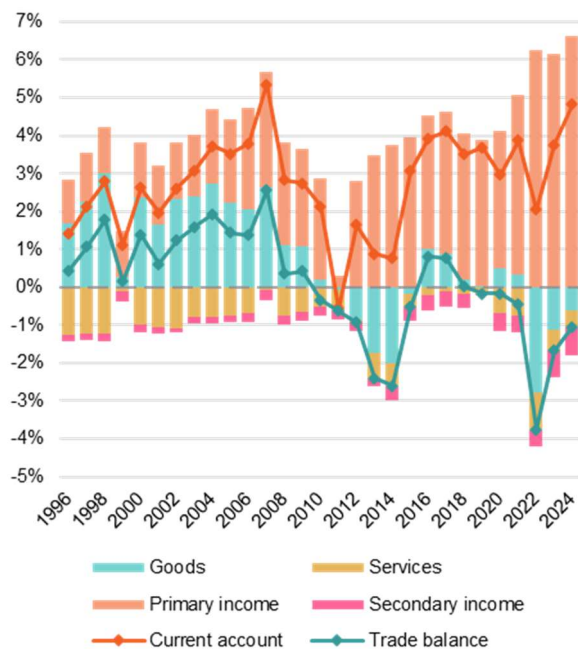
**But rising interest rates are likely to discourage investors from following such strategies, and more generally from investing less outside Japan, leading to a deterioration in the country's external accounts.**

**Figure 13 – Japan's international investment position (% of GDP)**



Source: IMF, GSA calculations.

**Figure 14 – Japan's current account balance (% of GDP)**



Source: Japanese Ministry of Finance, GSA calculations.

### 1.5. A sustained rise in interest rates could boost domestic investment and wages

**The Japanese economy is experiencing inflation for the fourth year running, wage rises for the third year running and interest rate rises for the second year running, whereas all these indicators have remained structurally close to zero for more than two decades.** A sustainable cycle could be sustained by the combination of a stable price-wage loop, a return of investment to riskier, higher-yielding assets, and an upturn in productivity. The increases in income caused by rising prices are already being passed on to nominal wages, which in turn are being passed on to business costs, which are adjusting their prices accordingly. Nevertheless, a stable and sustainable wage-price loop will require an increase in real wages, i.e. a rise in productivity, to fuel an increase in consumer spending, while wage rises are even slower than inflation. The savings and investment behaviour of Japanese households could also change as a result of the return of inflation, which reduces the purchasing power of money, and the end of the downward pressure exerted by the central bank on interest rates. If inflation and the positive interest rate environment continue, two trends could emerge:

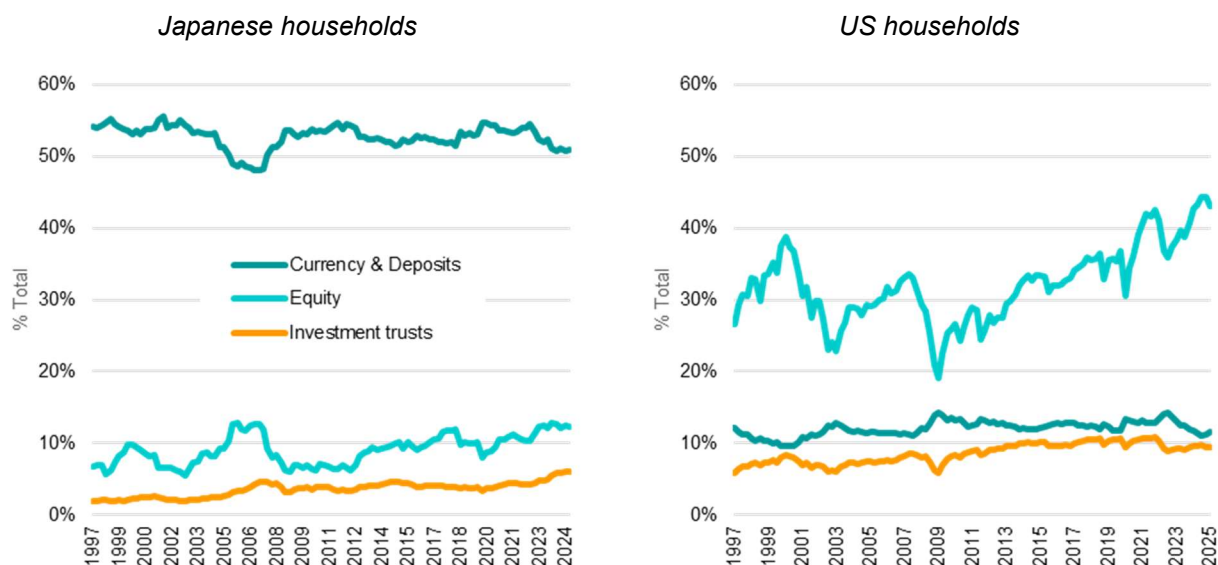
- A transfer of savings to productive investments and riskier assets, in particular equities and property, to resist inflation.
- A transfer of part of savings to consumption, which becomes more rational than holding cash and deposits, whose value diminishes over time in an environment of rising prices.

Since 2022, there have been signs of investment in new digital technologies to address the labour shortage caused by demographic decline. Since 2022, the second item of capital investment has shifted from "maintenance and repair of existing equipment", i.e. simply maintaining existing capacity, to "investment in digital technologies". At the same time, investment in software has increased since 2021<sup>7</sup>, while at the same time Japanese companies have not experienced an increase in shortages of plant and equipment, which

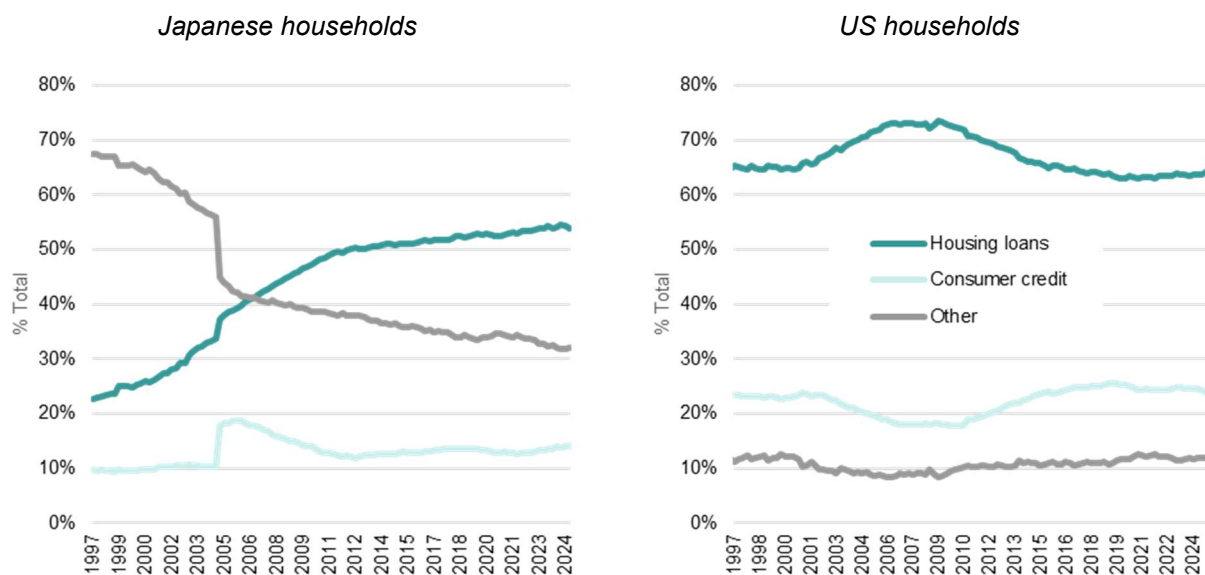
<sup>7</sup> The Japanese Economy Sheds its Skin, Nomura Connects, 22/05/2025.

suggests that they are seeking to invest in digital technologies to cope with a shortage of labour, by increasing their productivity.

**Figure 15.A – Comparison of the financial assets of Japanese and US households**



**Figure 15.B – Comparison of the financial liabilities of Japanese and US households**



Source: Bank of Japan, US Federal Reserve, GSA calculations.

## 2. A public debt model undermined by rising interest rates

### 2.1. A structural deficit widened by demographic ageing, but partially offset by a form of public *carry trade*

**The Japanese public deficit is essentially due to the structural deficit of the social security system.**

Due to the premature ageing of the population in Japan, where the fertility rate has been below the generational renewal threshold (around 2.1 children per woman) since the mid-1970s, social security expenditure is lower than revenue and is weighing on public spending. The annual primary public deficit averaged 5.1% of GDP between 1998 and 2024, which is less than the average deficit of the social security system over this period. In other words, if the social security accounts had been balanced, the Japanese government would have had a primary surplus over the past quarter century. As a result, Japan has accumulated the largest public debt of any developed economy, as a proportion of GDP, i.e. between 237% and 270% of GDP in 2024, depending on the method of calculation.<sup>8</sup>

**The spectacular increase in Japanese public debt is the result of a particular debt model, essentially subscribed to by domestic investors, the sustainability of which is based on assets acquired by the State and public agents, which can be seen as the counterpart of the accumulated debt and generate an average return higher than that at which the State takes on debt, partially offsetting the increase in debt.** For example, the Japanese government has preserved the financial reserves of the social security system, preferring to issue bonds to finance the structural deficit it has been running since the 1990s. At the same time, most of these reserves have been invested in risky, high-yield assets such as equities and foreign bonds, in line with Prime Minister Shinzo Abe's economic reforms. These reserves rose from 36 to 60% of GDP between 1997 and 2023<sup>9</sup>. **In the second quarter of 2024, the Japanese government held assets totalling 192% of GDP, with Japan's 'net' public debt reaching 78% of GDP<sup>10</sup>.** A large proportion of these assets are invested in high-yield assets (domestic or foreign equities, foreign bonds), while the government's liabilities were mainly made up of low-yield instruments (bank reserves, government bonds). Even though the government's net position was in debit, the high returns on its risky assets exceeded the government's financing costs, generating a positive return for Japan's balance sheet. This gap between returns on assets and liabilities explains why Japan's net liabilities have grown at a slower pace than its total public debt. Between 2012 and 2023, government assets rose from 130.1 to 181.3% of GDP (+51.2 pp), while public debt only increased from 248.5 to 275.6% of GDP (+27.1 pp).<sup>11</sup>

### 2.2. Japanese public debt has little exposure to market risks in the short term, but is more exposed in the medium term

**Despite its size, Japanese public debt faces few risks in the short term.** On the one hand, all public debt is issued in yen, which theoretically exempts the government from the risk of default, since it has control over money creation, as demonstrated by the central bank's large holdings of government bonds. What's more, Japanese public debt has little exposure to foreign investors, who hold just 12% of it. In addition, the renewed inflation experienced by the Japanese economy since 2022, after three decades of price stability, has enabled the public finances to run a smaller deficit in 2024, due to an increase in tax revenues, and has mechanically reduced the ratio of public debt to GDP, from 236.4% in 2019 to 234.9% in 2025, according to the IMF.

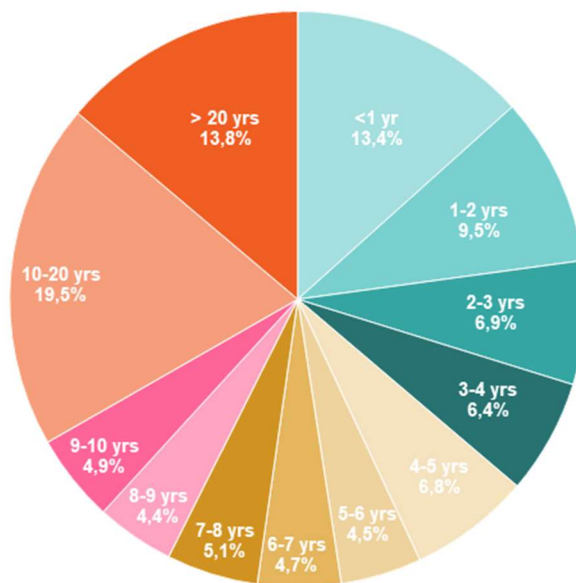
<sup>8</sup> The International Monetary Fund (IMF) estimates Japan's total public debt at 236.7% of GDP in 2024, while economists at the St Louis Federal Reserve put it at 270% of GDP, in a working paper entitled "*What about Japan?*"

<sup>9</sup> *Why Is Japan's Government Debt So High?* Federal Reserve Bank of Saint Louis, 01/04/2025.

<sup>10</sup> *What about Japan?* Federal Reserve Bank of St. Louis Working Paper 2023-028C, July 2024.

<sup>11</sup> *What about Japan?* Federal Reserve Bank of St. Louis Working Paper 2023-028C, July 2024.

**Figure 16 – Maturity of Japanese government bonds (share of total bonds)**



Source: Japanese Ministry of Finance, GSA calculations.

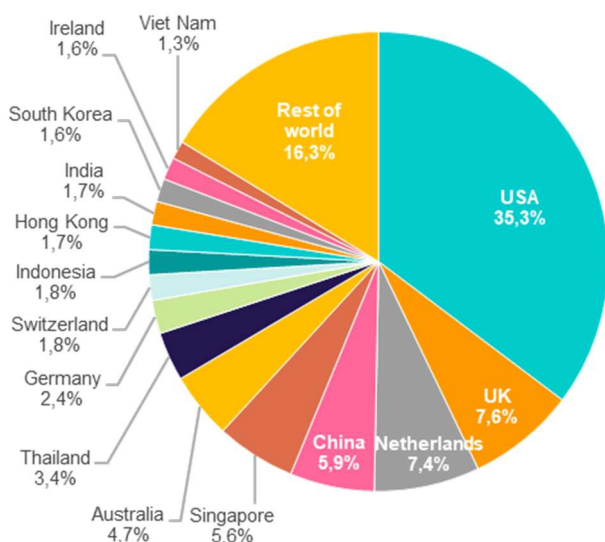
**In the medium term, there are few signs of a reduction in public spending, while the end of the central bank's expansionary monetary policy and the tightening between domestic and foreign interest rates will limit the effects of the *carry trade* strategies (borrowing at low rates to invest at high rates) pursued by the public authorities, which still make it possible to maintain the sustainability of public debt.** Unless there is a profound change in public policy, the public deficit is likely to continue to widen, for at least three reasons: 1/ senior citizens continue to account for an ever-increasing proportion of the population, leading to an increase in social security expenditure due to the support provided by public spending for health insurance contributions, care and pensions, with insufficient revenue from insurance premiums; 2/ rising geopolitical tensions and pressure from the United States are pushing up Japan's military spending; 3/ the government has recently extended various forms of financial support for families, including free pre-school, high school and childcare for families, as well as free university tuition for children from large families.

### 3. Economies that have benefited from Japanese investment could suffer as Japanese interest rates rise

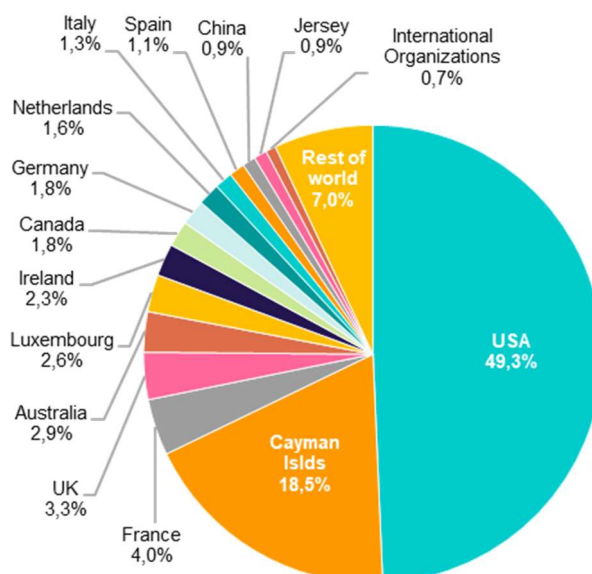
With a net international investment position of USD 3,494 billion in 2024, Japan is the world's second largest creditor, behind Germany. Rising domestic bond yields could prompt Japanese investors to repatriate their funds, which could destabilise the markets most dependent on Japanese capital flows. While the vast majority of Japanese direct investment abroad is directed towards the United States and Europe (36.4% and 26.6% respectively of Japanese FDI at the end of 2024), it is essentially the economies of Asia and Oceania that are most exposed to Japanese investors (see Figure 17). In Asia, Japan accounts for more than a tenth of total FDI in four countries: Thailand (21.8%), the Philippines (13.9%), South Korea (12.8%) and Indonesia (12.6%); and in the Oceania economies: Australia (12.4%) and Samoa (11.5%). Nevertheless, FDI is structurally relatively stable, since it involves the acquisition of stakes in local companies that require long-term financing. But a sustained rise in Japanese interest rates and a recovery in productivity growth could reduce these investment flows in the medium term.

**Portfolio investment by Japanese investors, i.e. the acquisition of financial securities, is more volatile and more subject to rapid short-term changes in trend. They mainly involve the advanced economies of North America, Latin America and Europe** (which account for 51.1%, 16.6% and 21.6% of the total respectively). India (where Japanese positions account for 11% of total portfolio investments), Australia (8.1%), Malaysia (4.8%) and New Zealand (4.7%) are among the economies most exposed to a withdrawal of Japanese investors, as are most of the advanced economies of Western Europe. The importance of Japan in US portfolio investment stocks (6.6%) is also noteworthy. Nevertheless, no repatriation of funds is visible at this stage: Japan's net international investment position actually increased by 7,500 bn yen, or just over 1.4% of the total, between the beginning of March and the end of May 2025, even if this reaction by Japanese investors is partly due to the recent appreciation of the yen (4.4% against the US dollar, between the beginning of March and mid-June).

**Figure 17 – Japanese FDI stocks**  
(end 2024)

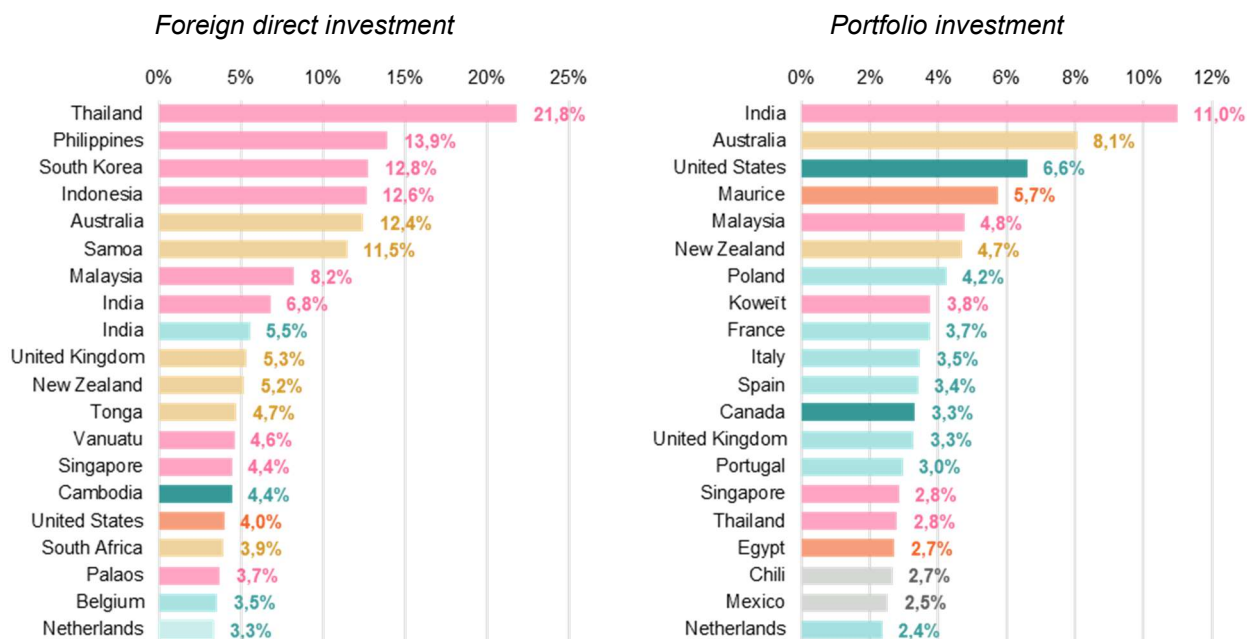


**Figure 18 – Japanese portfolio investment**  
(end 2024)



Source: Japanese Ministry of Finance.

**Figure 19 – Economies most sensitive to withdrawals of Japanese investment**  
(Japan's share of foreign liability stocks)



Sources: Japanese Ministry of Finance, IMF, Bank for International Settlements, GSA calculations.

Note: These results are obtained from data provided in yen by the Japanese Ministry of Finance, converted into US dollars at the exchange rate at the end of 2024 (data from the Bank for International Settlements), then compared with the stocks of financial liabilities provided in the International Monetary Fund (IMF) balance of payments.