

## What are the Key Drivers of a Weakening Yen?<sup>1</sup> – Risks and Opportunities to ASEAN+3 Economies –

September 8, 2022

### I. Introduction

- One of the longest-held notions in the financial markets is that the Japanese yen (JPY) is a safe-haven currency.** The JPY has exhibited a strong tendency to appreciate during risk-off episodes, such as the Global Financial Crisis (GFC) in 2008 and the Great East Japan Earthquake in 2011. In the past, such a tendency has been broadly explained by Japanese firms' and financial institutions' strong appetite to liquidate and repatriate their overseas investment assets to meet potential needs or rebalance their portfolio position during the risk-off episodes.
- However, despite the outbreak of the COVID-19 pandemic, this time looks different.** There has been only a short-lived appreciation of the JPY amid prolonged pandemic, heightened geopolitical risks triggered by the Russia-Ukraine war, and growing global economic uncertainties, amplified by a spike-up in global inflation and major central banks' aggressive policy responses. In fact, the JPY has been depreciating against the U.S. dollar (USD) since the beginning of 2021. Although most of 2021 was a risk positive period, the increased pace of JPY depreciation in the past few months despite elevated market stress poses a question whether there are any structural changes in underlying dynamics in the JPY movements.
- Against this backdrop, this analytical note aims to understand the key drivers of JPY movements in the period after the COVID-19 pandemic.** To this end, we investigate the relationship between USD/JPY exchange rates and key determinants – including interest rate differentials between the U.S. and Japan, changes in risk perceptions, the current account balances, capital flows, and oil prices – to draw some implications for the JPY's near-term prospect. We briefly discuss whether the JPY would remain a safe-haven asset. Subsequently, we also discuss how weakening JPY may affect the ASEAN+3 economies through trade, foreign direct investment (FDI) and capital flow channels, before concluding the note.

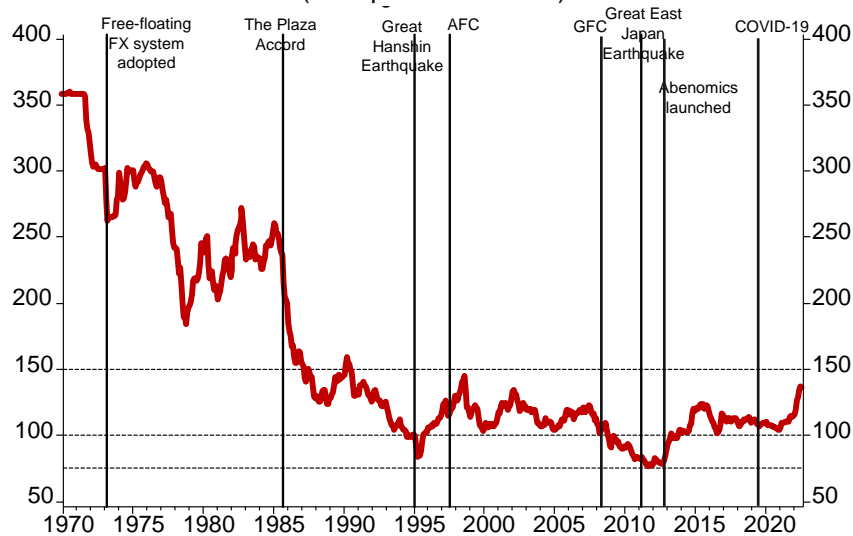
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## II. A Brief History of JPY Dynamics

4. From the perspective of a longer horizon, the JPY experienced a gradual appreciation against the USD until the mid-1990s, after shifting to the free-floating exchange rate system in 1973. The USD/JPY rate has shifted from a fixed exchange rate system of 360 yen to the USD, which lasted until April 1971, to the Smithsonian rate of 308 yen to the USD (from December 1971), and then to a free-floating exchange rate system in February 1973. Since then, the JPY has continued to appreciate against the USD for a long time (Figure 1, Table 1). The strengthening trend of the JPY against the USD after the Plaza Accord in 1985, combined with the worsening of the U.S. twin deficits and the Black Monday of October 19, 1987, pushed the JPY against the USD to around 120 yen per dollar in 1988.

**Figure 1. Evolution of USD/JPY Exchange Rate**  
(Yen per U.S. dollar)



Source: Haver Analytics and AMRO staff compilation

Note: Horizontal lines correspond to the level of USD/JPY exchange rate levels at 150, 100 and 75 yen per U.S. dollar.

**Table 1. Major Events in Financial Markets that Affected USD/JPY Exchange Rate**

Timing	Event	USD/JPY Rate (Monthly Average)
February 1973	Shift to the free-floating exchange rate system	301.15 (Jan. 1973) 265.26 (Mar. 1973)
September 1985	The Plaza Accord (1985 Agreement of G5 Nations)	236.91 (Sep. 1985) 214.84 (Oct. 1985)
April 1995	Peak of yen-appreciating trend (The G7 meeting in April 1995 released a statement that the yen's strength was too high)	83.53 (Apr. 1995) 85.21 (May 1995)
July 1997	Asian Financial Crisis followed by <i>yen's depreciation trend</i>	115.10 (Jul. 1997) 144.76 (Aug. 1998)
August 1998	Russian Financial Crisis	144.76 (Aug. 1998) 117.40 (Dec. 1998)
September 2007	The Global Financial Crisis	115.01 (Sep. 2007) 91.21 (Dec. 2008)
October 2011	Yen's appreciation after the East Japan Great Earthquake (March 2011, the JPY's historical high of 75.32 yen to the USD was recorded on October 31, 2011)	81.82 (Mar. 2011) 76.72 (Oct. 2011)
April 2013	Start of the BOJ's Quantitative and Qualitative Monetary Easing	94.73 (Mar. 2013) 101.01 (May 2013)

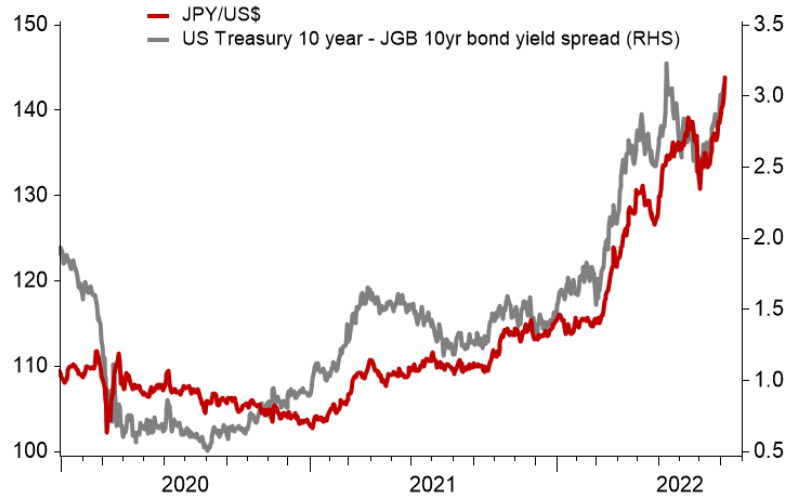
Source: AMRO staff compilation

**5. Since the Great Hanshin Earthquake in 1995, the JPY has tended to appreciate against the USD when major shocks hit the economy.** The 1995 Great Hanshin Earthquake was the first time when people became aware of the JPY's sharp appreciation amid a risk-off situation in the financial markets. When the Earthquake struck in Kobe in January 1995, the JPY rose 20 percent against the USD within two months after the tragedy, driven by repatriation flows by Japanese firms and insurers. During the 1997 Asian Financial Crisis, the JPY showed a depreciation trend from June 1997 to August 1998. However, after the 1998 Russian financial crisis, the deleveraging became another factor for JPY's sharp rise when the global financial markets were in a risk-off situation. JPY has continued to experience a sharp appreciation due to continued global risk-off mode during the GFC in 2008-09, followed by the European sovereign debt crisis in the early 2010s. Meanwhile, the Great East Japan Earthquake on March 11, 2011 led to another sharp JPY appreciation against the USD, pushing it down from 82.98 to 78.89 in a week. A recovery of trade balance surpluses in 2009-2010 also may have helped accelerate the trend of JPY appreciation. Subsequently, the JPY recorded its historical high of 75.32 yen to the USD on October 31, 2011, triggered by the depreciation of the EUR following the financial crisis in some southern European countries.

**6. After the launch of Abenomics in December 2012, the JPY turned to a depreciating trend against the USD on the back of the BOJ's ultra-easy monetary policy as well as Japanese firms' growing overseas investments.** In April 2013, the BOJ introduced the Qualitative and Quantitative Monetary Easing (QQE) policy, then adopted a Negative Interest Rate Policy (NIRP) in January 2016. In September 2016, the BOJ adopted the QQE with Yield Curve Control (YCC) policy to maintain not only the short-term at -0.1 percent, but also long-term interest rates, 10-year JGB yields, at around zero percent. Since then, the interest rate differential between the U.S. and Japan has been one of the major factors which drove the JPY exchange rate against the USD. Meanwhile, the structural changes in Japanese investors' overseas investments also contributed to the JPY's depreciation since the Abenomics was launched as a growing number of Japanese manufacturers chose to go abroad with a view to relocating their production bases to cheaper locations. In addition, suppressed by the low interest rate environment, Japanese banks, pension funds, and lifers increased their overseas investments in search for higher returns.

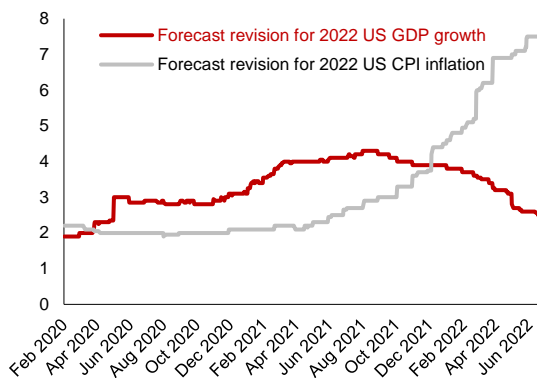
**7. At the onset of the COVID-19 pandemic, the JPY showed a short-lived appreciation until early 2021 when it shifted to a weakening trend.** At the outset of the COVID-19 pandemic, the JPY rose sharply from 112 yen to the USD to the 101-yen level in early March 2020. After rebounding to 111 yen during the same month, the JPY appreciated steadily against the USD to 103 until December 2020. From January 2021, the JPY began to depreciate against the USD, mainly driven by a widening interest rate differential between Japan and the U.S. The JPY has also weakened against a broad range of currencies due to improved risk sentiments toward global economic recovery that led to an unwinding of safe-haven demand (See Box A). Since March 2022, the JPY's depreciation against the USD has accelerated (Figure 2) on the back of escalating U.S. inflation (Figure 3) and the Fed's aggressive rate hikes, which pushed up long-term U.S. bond yields (Figure 4).

**Figure 2. USD/JPY Exchange Rate and 10-Year Bond Yield Differentials**  
(Yen per U.S. dollar; Percentage point)



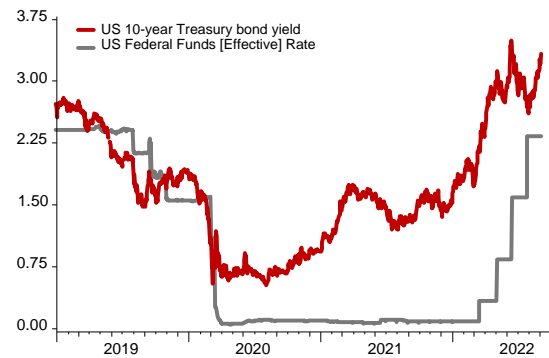
Sources: Bank of Japan, Federal Reserve via Haver Analytics.

**Figure 3. Forecast Revision for U.S. GDP Growth and Inflation**  
(Percent year-over-year)



Source: Bloomberg; and AMRO staff calculations.

**Figure 4. U.S. Federal Funds Rate and U.S. 10-Year Treasury Bond Yields**  
(Percent per annum)



Source: Federal Reserve Board via Haver Analytics.

### Box A. Is the JPY Still a Safe-haven Asset?

The JPY has exhibited some safe-haven tendency (i.e. appreciation when risk backdrop is poor and vice versa) historically but the recent weakness, despite the poor risk backdrop in the past six months, needs a closer examination. The JPY weakened sharply over the past six months, even as the global risk backdrop deteriorated owing to Fed's monetary policy response to inflationary pressures and geopolitical stress. The depreciation was larger than that seen in many other currencies which are perceived to be riskier and has led to concerns in the market about JPY losing its safe-haven characteristics. That said, we believe that the issue is much more complex than what meets the eye because of two factors pertaining to the mechanics of interest rate differentials

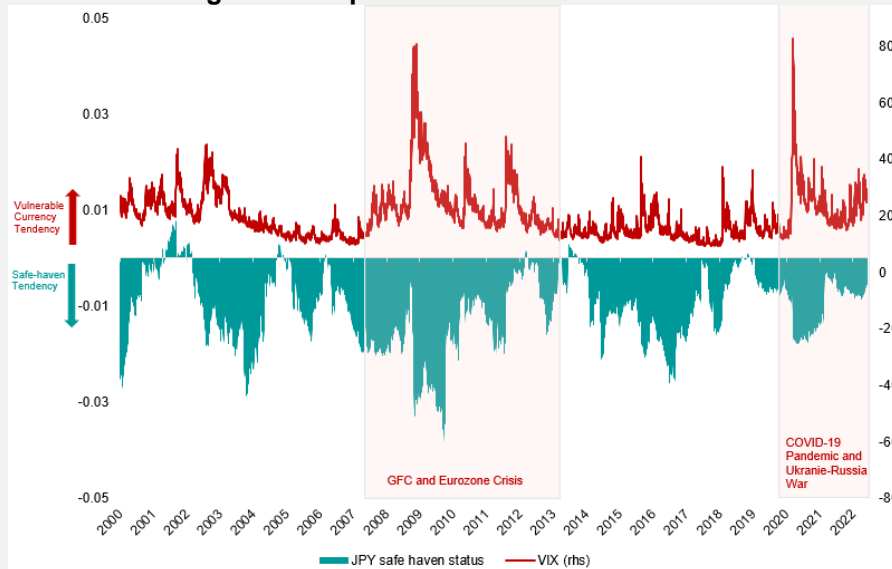
- Over the past decade, US Treasury yields have enjoyed a wider trading range than JGB yields. JGB yields tend to remain more stable due to prolonged QE, the QQE with massive JGB purchases and, more recently, the YCC policy which directly targets 10-year JGB yields, conducted by the BOJ. Hence the transmission of rising US yields to JGB has been minimal. On the other hand, yields in most of the perceived "riskier" currencies could rise in response to

the UST yields. Additionally, JPY is one of the few currencies which finds extensive use as a funding currency against other high yielding currencies which further strengthens its relationship with interest rates differentials.

- During episodes of poor risk backdrop, US Treasuries also exhibit safe-haven characteristics, and this leads to a fall in UST yields. With JGB yields largely stable, this spread narrows. Narrowing interest rate differentials and the demand for safe haven assets together provide strength to the JPY. However, in the past few months, rising UST yields (due to a hawkish Fed and inflationary pressures) have been the source of deteriorating risk backdrop in global markets. This placed JPY in a tug-of-war between rising interest rate differentials and demand for safe assets with the former appearing to gain the upper hand, leading to the depreciation of the JPY.

**Our estimation indicates that JPY remains a safe-haven currency, although weakened during the COVID-19 pandemic.** Following Masujima (2019), we estimate the safe-haven index for JPY<sup>2</sup>, which measures the impact of a 1-percentage point rise in VIX on percent changes of exchange rates. Our estimation indicates that the index increases significantly during the GFC and the European sovereign debt crisis, proving the safe-haven characteristic of JPY during this episode (Figure A1). Although the index declines during the COVID-19 pandemic, it is still in the safe-haven tendency zone, suggesting that JPY's safe-haven status still holds.

**Figure A1. Japan: JPY's Safe-haven Status**



Source: Bloomberg and AMRO Staff Estimate.

Note: A safe-haven index shows the impact of a 1-ppt rise in VIX on percent changes of exchange rates. A negative value means a safe-haven currency that appreciates when the VIX rises. A positive value means a currency that depreciates when VIX rises.

<sup>2</sup> Following Masujima (2019), we estimated a safe-haven index based on a hypothesis that the violation of the UIP condition makes the carry trade profitable on average. The model is specified as:  $d\ln\left(\frac{JPY}{USD}\right)_t = \alpha + \beta_1(\Delta d i_{USDJPY})_t + \beta_2 d\ln(VIX)_t + \varepsilon_t$ . Data: daily data from 1990, rolling sample of 250 days. The coefficient  $\beta_2$  of the VIX is defined as the safe-haven index, in which:  $\beta_2 < 0$ : "safe-haven" tendency,  $\beta_2 > 0$ : "vulnerable" tendency,  $\beta_2 = 0$ : FX movement does not follow specific tendency.

### III. Key Drivers of JPY Movements and Outlook

#### A. Drivers of the JPY Exchange Rate Against the USD

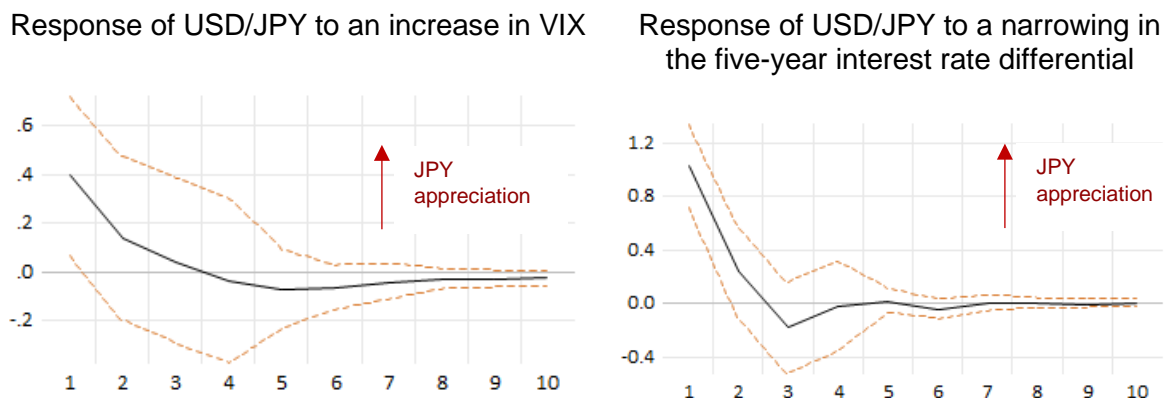
8. **We assess the dynamic responses of JPY to selected variables including interest rate differentials, risk perception, and the current account and capital flows<sup>3</sup>.** The variables include: (i) interest rate differential reflecting monetary policy shifts, (ii) changes in risk perceptions, and (iii) current account conditions and capital flows<sup>4</sup>. Following Brunnermeier and others (2008) and Han and Westelius (2019), a VAR model of each factor on the movements of the JPY. The VAR model can be written as

$$Y_t = \beta_0 + \sum_{j=1}^J A_j Z_{t-j} + \varepsilon_t,$$

in which  $Y_t$  is a vector of endogenous variables, including changes in the logarithm of CBOE's volatility index (VIX), changes in five-year interest rate differentials between Japan and the U.S. (See Box B), Japan's current account as a percent of GDP, Japan's net portfolio investment as a percent of GDP, and changes in the USD/JPY exchange rate. The sample includes monthly data from March 1996 to April 2022.

9. **Overall, interest rate differentials and changes in risk perception have significant impacts on the JPY, while the impacts of current account and net portfolio investments have smaller impacts (Figure 5).** Particularly, a one-standard-deviation increase in the change in VIX, which represents heightening risk aversion, could lead to a 0.4 percent appreciation in the JPY against the USD in the first month. If the five-year interest rate differential between the U.S. and Japan falls by a magnitude equal to one standard deviation of monthly changes, then the JPY is likely to appreciate by about 0.9 percent during the first month. While the impacts of net portfolio investment are statistically insignificant, an improvement in the current account can lead to JPY appreciation with some time lags.

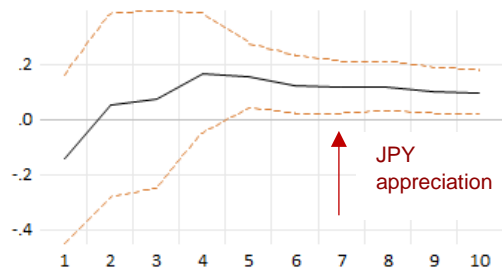
**Figure 5. Japan: Impulse Response Functions (Full Sample)**



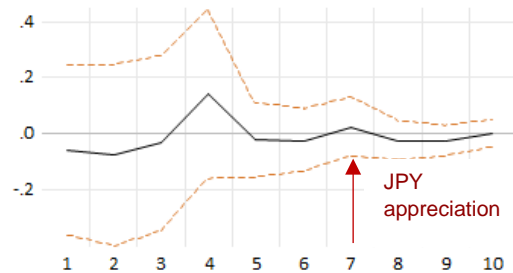
<sup>3</sup> The JPY appreciation or depreciation referred in this section is against the USD, unless otherwise stated.

<sup>4</sup> See Habib and Stracca (2011), Han and Westelius (2019), and Masujima (2019).

Response of USD/JPY to an improvement in the current account



Response of USD/JPY to net portfolio investment flows

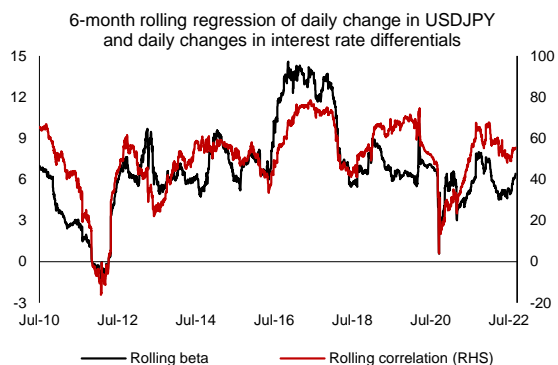


Source: Bloomberg, Haver Analytics, and AMRO staff estimate.

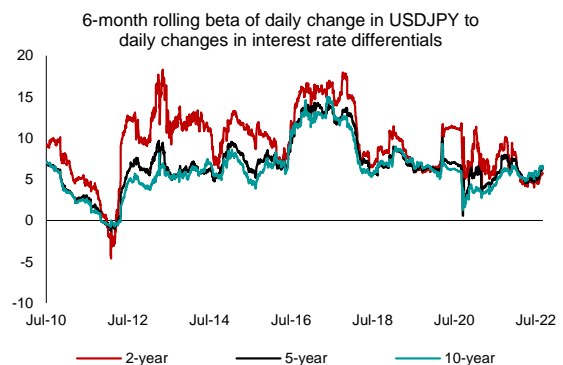
10. **Though rising interest rate differentials have been the major driver of recent JPY weakness, their contribution to daily JPY volatility is still well within historical ranges.** A rolling regression of daily changes in USD/JPY and 5-year interest rate differential (Figure 6) shows that the correlation over the past six months is not too different from that seen, on an average, over the past decade. In fact, the sensitivity of USD/JPY changes to changes in 5-year interest rate differentials has, if anything, declined and is in the bottom half of the range seen since 2013. Thus, we can conclude that the relationship is in line with what it has been historically, but it is the strong trend in widening interest rate differential which has caused the seemingly outsized JPY weakness against the USD.

**Figure 6. Japan: Relationship of USD/JPY and Interest Rate Differentials**

6-month Rolling Correlation Between Daily Changes in USD/JPY and Daily Changes in 5-year Interest Rate Differentials



6-month Rolling Beta of Daily Changes in USD/JPY to Daily Changes in Interest Rate Differentials



Sources: Bloomberg, Haver Analytics, and AMRO staff estimate.

**Box B. Interest Rate Differentials of Which Tenors are Most Relevant for USD/JPY Exchange Rate?**

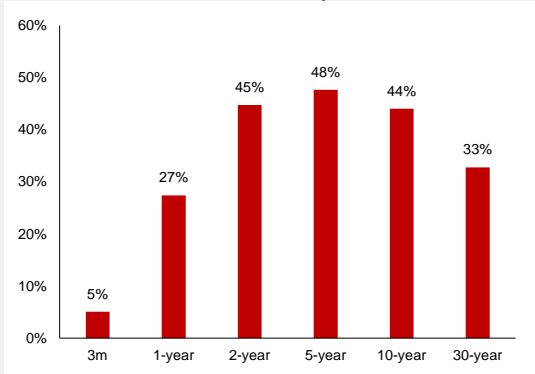
While it is generally observed that the differentials between US and Japanese yields have a strong correlation with the USD/JPY exchange rate, it is a matter of debate which tenor is the most relevant. While shorter-tenor interest rates are more dependent on monetary policy divergence, longer-tenor interest rates are also dependent on the expectations of growth and inflation. We take a statistical approach to find the tenor whose differential has the strongest relationship with the exchange rate.

We run a simple correlation on daily changes in USD/JPY exchange rate and daily changes in interest rate differential for various tenors. We find that in the post-GFC period, the 5-year tenor explains the highest amount of volatility in USD/JPY on a daily basis. The 2-year and 10-year tenors also exhibit

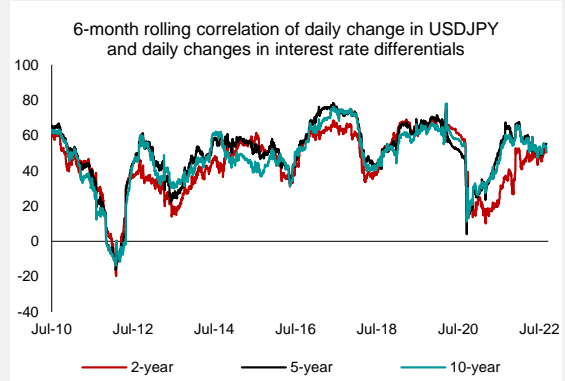
strong correlation, but are slightly lower than that for the 5-year tenor. We, therefore, base most of our analysis using the 5-year interest rate differential.

**Figure B1. Japan: Relationship of USD/JPY and Interest Rate Differentials**

Correlation of Daily Changes in USD/JPY with Daily Changes in Interest Rate Differentials since January 2010



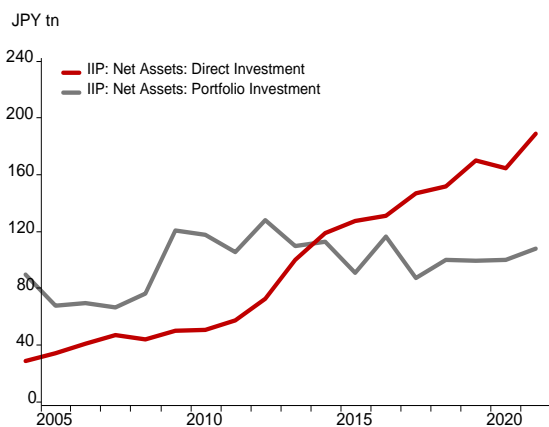
6-month Rolling Correlation Between Daily Changes in USD/JPY and Daily Changes in Interest Rate Differentials



Sources: Bloomberg, Haver Analytics, and AMRO staff estimate.

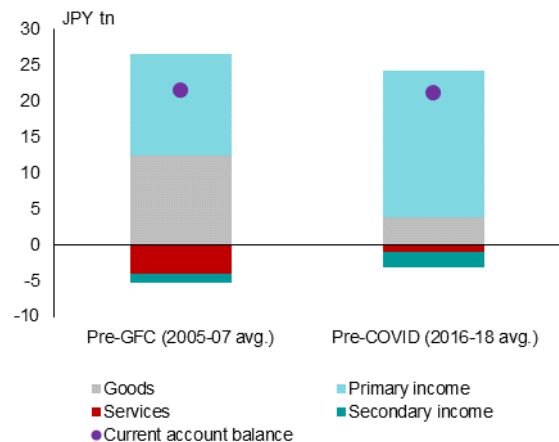
11. **The weaker impact of the current account balance on JPY could be largely attributable to structural changes in the composition of current account surplus, which is increasingly dominated by income surplus.** Since the GFC, Japan's goods trade surplus has declined significantly, which eased the pressures toward JPY appreciation. In contrast, Japanese firms' outbound FDI has increased notably since the launch of Abenomics (Figure 7), mainly driven by manufacturers' efforts to relocate their production bases. Although Japan's overall current account surplus remains robust during the post-GFC period, its composition has changed significantly with primary income surplus becoming the dominant share (Figure 8). The implication of income surplus on JPY is different from that of trade surplus as primary income surplus tends to be reinvested overseas whereas the trade surplus would be repatriated and converted from foreign currencies into JPY. Hence, the increase in contribution of income surplus to the current account surplus has weakened JPY appreciation pressures.

**Figure 7. Net Foreign Direct and Portfolio Investments (Stock)**



Sources: BOJ, JMOF via Haver Analytics  
Note: Based on the International Investment Position (IIP)

**Figure 8. Breakdown of Current Account Surplus**

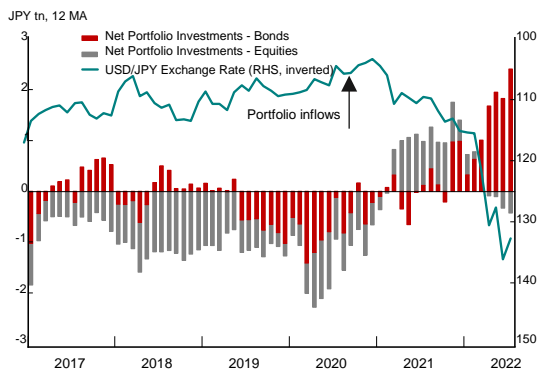


Sources: BOJ, JMOF via Haver Analytics



12. **Although portfolio investment flows had been considered one of the important drivers of FX movements in the past, the actual portfolio flows remained inwards and thus was not a key driver of JPY weakness in the recent years, particularly since 2021.** Japan's foreign portfolio investment account turned from net outflow in 2020 to net inflow in 2021 and the first half of 2022 (Figure 9)<sup>5</sup>, but the magnitude of the switch was not comparable to the huge net outflows in 2020, particularly between Q1 and Q3. The main reasons for the foreign portfolio investment balance turning to net inflow were twofold: 1) foreign investors ended their sales of Japanese equities<sup>6</sup> and inward portfolio investment recovered (Figure 10), and 2) Japanese investors undertook big sales of foreign assets. However, portfolio investment flows have moved in the opposite direction of the actual exchange rate movements, suggesting they have not been the key driver of USD/JPY exchange rate movements. One explanation can be that portfolio investment flows do not necessarily include foreign exchange transactions. As an example, Japanese banks often borrow the USD to purchase U.S. Treasuries. This trade is categorized as portfolio outflows, even though it does not have any foreign exchange implications.

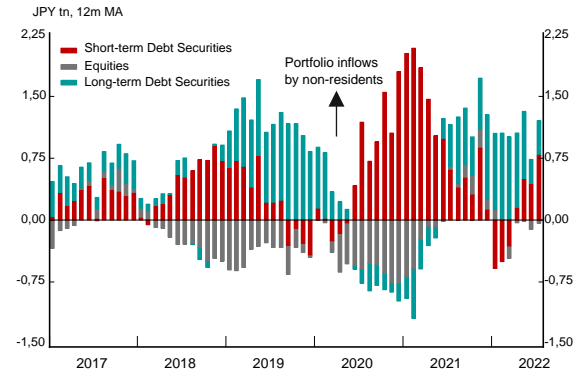
**Figure 9. Net Portfolio Investments by Asset – Bonds and Equities**



Source: JMOF; Haver Analytics

Note: Bars denote the difference between net purchases of Japanese assets by non-resident investors and those of foreign assets by Japanese investors. A positive (negative) number shows net portfolio inflows (outflows).

**Figure 10. Non-resident Net Purchases of Japanese Bonds and Equities**



Source: JMOF; Haver Analytics

Note: Bars denote the difference between net purchases Japanese assets by non-resident investors. A positive (negative) number shows net portfolio inflows (outflows).

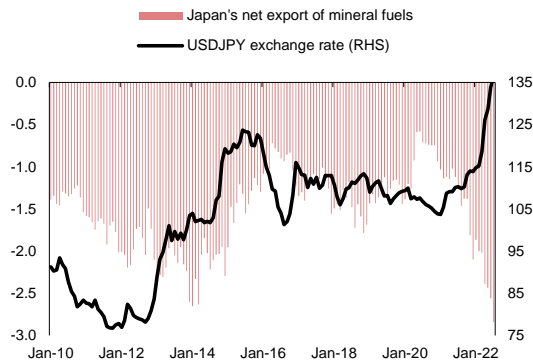
13. **Oil prices, and their potential impact on Japan's trade balance, have been an additional factor which the market has paid more attention lately when trading the JPY.** Japan has been a net energy importer for years (Figure 11) but the relationship between the JPY and oil prices has not been particularly stable. Over the past decade, the correlation between JPY and oil prices has fluctuated and also switched directions. That said, we see that over the past few months, higher oil prices have also contributed to weaker JPY. The one-year rolling correlation between oil prices and USD/JPY is at the highest level in a decade (Figure 12). The typically weak (or unstable) correlation has been magnified not only because of Japan's net energy importer status but also due to indirect effects of oil prices. Higher oil (and other commodity) prices have been a key contributor to inflationary pressures and hence, owing to central bank stance, added to the rising interest rate

<sup>5</sup> In the past, purchases of foreign assets by Japanese investors (outward foreign portfolio investment) were larger than purchases of Japanese assets by non-resident investors (inward portfolio investment), so the portfolio balance was usually in deficit and thus contributed to net selling of the JPY in supply-demand estimates.

<sup>6</sup> By asset, notably during the pandemic, foreigners' sales of Japanese equities were particularly large last year, reducing their net equity holdings by about JPY10 trillion in 2020.

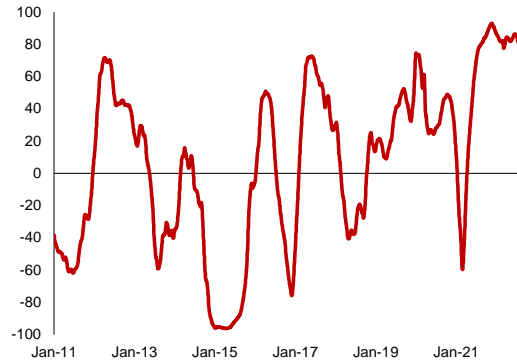
differential between the U.S. and Japan. To that effect, markets have increasingly focused on oil price movements while trading USD/JPY.

**Figure 11. Japan's Net Energy Exports and USD/JPY Exchange Rate (Trillions of Yen, Index)**



Source: Haver Analytics; and AMRO staff calculations.

**Figure 12. 1-year Rolling Correlation Between Oil Prices and USD/JPY**



Source: Bloomberg Finance L.P.; and AMRO staff calculations.

## B. Potential Drivers for JPY Outlook

14. **Our analysis suggests that although interest rate differentials were the primary drivers of recent JPY depreciation, other factors such as markets' risk perceptions and oil prices were also important.** The future direction of Japan's domestic and external economic conditions, and macro/financial policy developments would be key drivers for the JPY movements moving forward. Table 2 lists selected key risk factors that need a closer attention regarding the near-term JPY outlook.

**Table 2. Key Factors for USD/JPY Prospects**

Direction	Key Factors
<b>JPY positive</b>	<ul style="list-style-type: none"> <li>• Forward-looking market pricing on Fed's tightening and possible recession in U.S.</li> <li>• BOJ's policy shift to respond to rising inflation</li> <li>• Reversal in yen-carry trades</li> <li>• Recovery in services account with border re-opening for tourism</li> <li>• Widening inflation gap between U.S. and Japan</li> </ul>
<b>JPY negative</b>	<ul style="list-style-type: none"> <li>• Fed aggressive tightening &amp; U.S. yield increase</li> <li>• BOJ's firm commitment to YCC</li> <li>• Increasing yen-carry trades</li> <li>• Japan's widening trade deficits driven by high oil and commodity prices</li> </ul>

Source: AMRO staff compilation

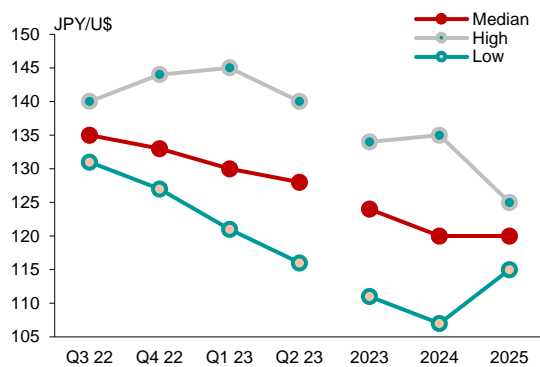
15. **Among key factors for USD/JPY prospects, short-term market expectations and long-term fundamentals suggest the JPY strength.**

- **Market participants foresee the JPY's near-term outlook to be tilted toward gradual appreciation amid growing concerns of US recession.** A latest Bloomberg market survey collected during August 2022 may indicate that the pace of recent JPY weakness has been too rapid amid growing concerns of U.S. recession in the coming quarters. A median forecast among 35 market economists pointed out that JPY is likely to gradually

appreciate against USD toward Q2 2023 (Figure 13). Moreover, the possibility of a BOJ's policy adjustment in 2023, which is being priced into interest rate swap markets<sup>7</sup>, could remain a JPY-positive risk factor.

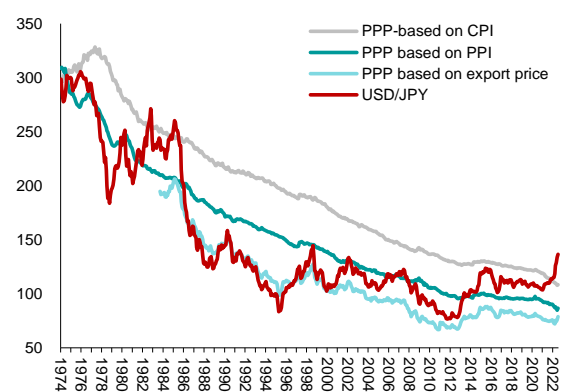
- **A long-term perspective from the purchasing power parity (PPP) suggests that the JPY has the potential to appreciate against the USD.** One of the key factors contributing to the long-term trend of the strong JPY against the USD can be attributed to the difference in inflation rates between the U.S. and Japan. The higher inflation rate of the U.S. than that in Japan is considered to have been adjusted through JPY's appreciation for a long time, as the PPP suggests. Figure 14 indicates that since October 2021, the current JPY level has persistently exceeded the PPP based on consumer price index, the upper ceiling of three PPPs, which was observed only twice in 1982 and 1984, since the 1970s. In addition, a widening inflation gap between the U.S. and Japan may suggest that the JPY may face some appreciation pressure against the USD.

**Figure 13. Market Forecasts for USD/JPY Exchange Rate**



Sources: Bloomberg; AMRO staff calculations  
Note: Based on 35 market participants' responses collected during Aug 1-29, 2022.

**Figure 14. USD/JPY Exchange Rate Against PPP-implied Rates**



Source: Institute for International Monetary Affairs (IIMA)

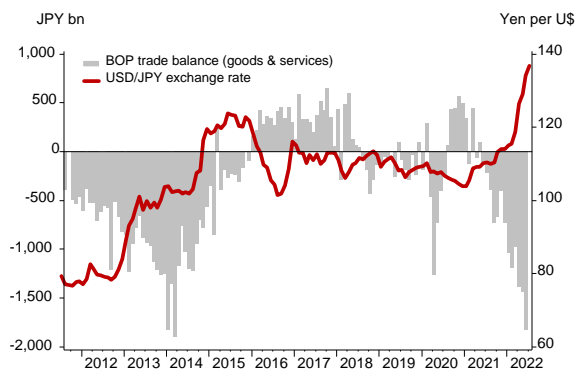
## 16. That said, JPY-negative risk remains due to the interest rate differentials, Japan's trade deficit, and speculative positions in financial markets.

- **Decoupled US and Japan's monetary policy stance and Japan's widening trade deficit may further pressure JPY against USD.** Since June 2022, 10-year US Treasury bond yields have stopped rising rapidly and fluctuated around 3 percent. That said, the Fed's hawkish stance to fight against elevated U.S. inflation makes a sharp contrast to the BOJ's firm commitment to its YCC policy to support Japan's economic recovery. If the Fed's aggressive rate hikes were to lead to a widening interest differential, the so-called "yen-carry trades" in which investors sell low-yield currencies and purchase high-yield currency, could become active again, which will become a JPY negative factor. In addition, Japan's widening trade deficit, reflecting soaring energy prices with some lags, will likely serve as a downside risk to JPY outlook (Figure 15).

<sup>7</sup> As of Aug 29, 2022, the JPY overnight index swap (OIS) rate indicates that market participants price in a policy rate hike during 2023.

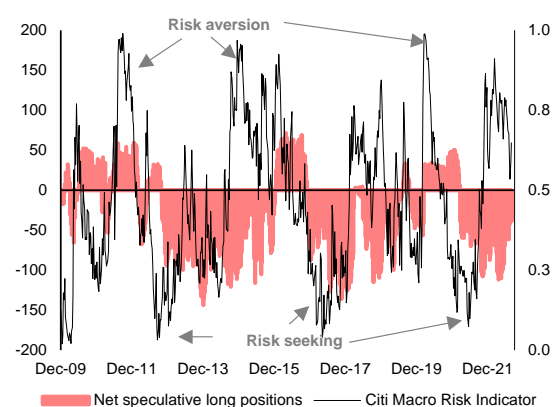
- **The speculative net short JPY positions have eased since June 2022 but they may remain hostage to market's expectations around the U.S.-Japan interest rate differentials.** The speculative positioning in the market is still net short JPY (Figure 16) and there are very few episodes when the positioning has been negative in a risk negative environment. For most of the past decade, speculative positions have tended to be long JPY during times of uncertainty and market stress – such as the GFC, EM stress in 2015-16 and the initial phase of the COVID-19 pandemic in 2020. Short positioning in the JPY is typically associated with an improved risk backdrop. The only two episodes where the JPY speculative positioning was short amid risk aversion are the 2013 taper tantrum and 2022 Fed tightening – both episodes are characterized by widening interest rate differentials. Note that short positions in the JPY may not exclusively be a manifestation of bearish view on the JPY. Long USD vs short JPY positions are also a proxy trade for widening US-Japan interest rate differential, i.e. selling US Treasury and buying JGBs. With Fed reiterating its hawkish stance, it is likely that the speculative short positions in JPY may not fall further rapidly.

**Figure 15. USD/JPY Exchange Rate and Japan's Trade Balance**



Sources: Bank of Japan, Ministry of Finance Japan via Haver Analytics

**Figure 16. Net Speculative Positions on JPY and Market Stress**



Sources: Commodity Futures Trading Commission (CFTC) via Bloomberg, and Citi

## IV. ASEAN+3's Risks and Opportunities from Weakening JPY

### A. Implications for the Japanese Economy

17. **The weak JPY could have positive impacts on Japanese economy by potentially bringing the economy out of the decades long deflation and strengthening export competitiveness, but it could also increase import prices and cost of production for Japanese companies.** The softer currency, coupled with surging commodity prices amid Ukraine war, is leading to higher costs for resource-poor Japan that relies heavily on energy imports and has been suffering from decades long deflation. Japan's wholesale price inflation in April and May accelerated to 10.0 and 9.3 percent (y-o-y), the fastest pace on record. A weaker currency has been a mixed blessing for an export-driven growth economy, boosting exporters' competitiveness and the value of their overseas profits when repatriated, but also inflating costs for importers and making overseas acquisitions more expensive. However, a persistent weakening of the currency will be accompanied by a rise in the costs of imported intermediate inputs, which will feed into higher prices of products leading to higher wages, rentals, and ultimately, higher inflation

nationwide. This will erode any competitive gain from the initial nominal depreciation because of higher domestic costs and product prices. In addition, a wide range of economic research, including Arbatli and Hong (2016), Benkovskis and Wörz (2018), has shown that there is a very limited role for the exchange rate in determining the export competitiveness of economies that produce high-value goods.

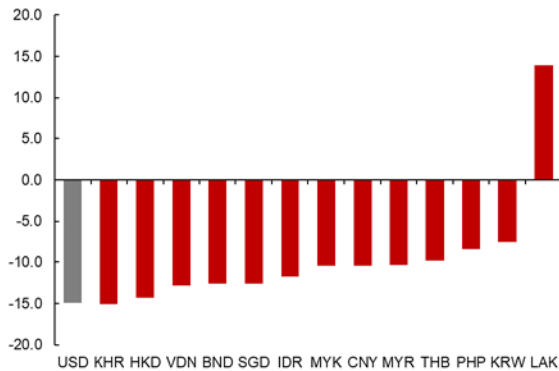
**18. The impact of a weaker yen is likely to be uneven across the sectors, with households and small- and medium sized enterprises (SMEs) likely to suffer from higher inflation.** In particular, the recent sharp depreciation of the yen can be severely damaging for SMEs that are not in a position to fully pass on higher costs to consumers. Ultimately, imported inflation and surging prices of goods traded between firms will increase the likelihood of higher consumer prices. This, in turn, could reduce the purchasing power of low- and middle-income households with higher marginal propensity to consume and hurt their private expenditures.

**19. The dramatic depreciation of the JPY has led to increased uncertainty and has had a negative impact on corporate decision-making.** Japanese firms have been struggling with numerous global uncertainties such as US-China tensions, the monetary policy of major central banks, climate change and related global regulations, natural disasters, and the impacts of the Russia-Ukraine war. Companies can, in normal circumstances, establish future management and investment plans with reasonable expectations when exchange rates, the most important price variable, move by reflecting economic fundamentals. However, this is not the case at present. Furthermore, business planning disruptions can weaken growth in the economy by preventing firms from properly responding to opportunities and challenges in a rapidly changing global economic environment.

## **B. Implications on ASEAN+3 Economies**

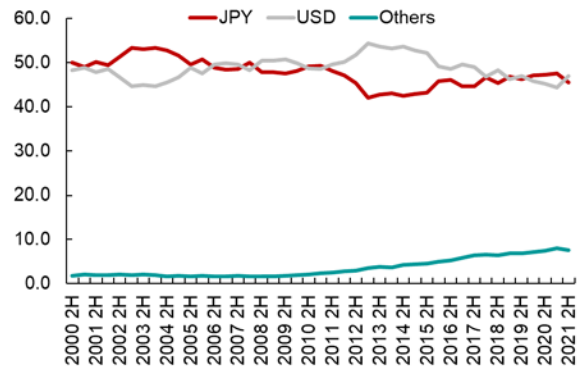
**20. The trade settlement between Japan and the rest of Asia is primarily denominated in USD and JPY.** The JPY has depreciated against not only the USD but also other ASEAN+3 currencies except for the Lao kip (LAK) since the beginning of 2022 (Figure 17). Nearly a half of Japanese exports to the rest of Asia were denominated in the USD (46.9 percent) and another half in the JPY (45.5 percent), as of 2H 2021. The dominance of the USD and the JPY as trade settlement currencies has remained for more than 20 years (Figure 18).

**Figure 17. JPY Depreciation by Currency**  
(YtD percent as of 29 June, 2022)



Sources: Bloomberg; AMRO staff calculations

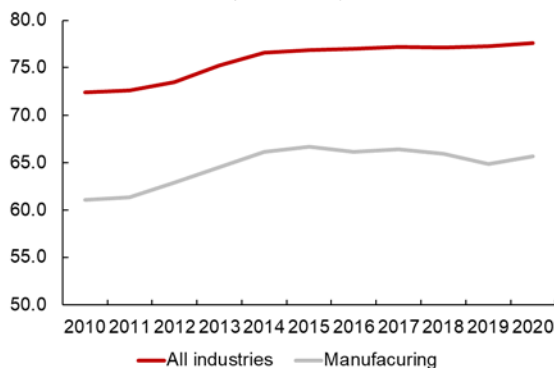
**Figure 18. Settlement Currency of Exports from Japan to Asia**  
(Percent)



Sources: JMOF; AMRO staff calculations

21. **Despite JPY depreciation, other ASEAN+3 economies are unlikely to be affected significantly in terms of export competitiveness.** Japanese companies generally strengthen their export competitiveness against other ASEAN+3 companies during the period of JPY depreciation if their production lines and factories are in Japan. Some ASEAN+3 countries would be negatively affected if Japanese firms strengthened their export competitiveness on the back of the weakened yen since they are in a competitive relationship; however, this is not the case at this juncture. However, many Japanese firms have already relocated their factories overseas, producing and selling products in the local market. As of FY2020, more than 75 percent of Japanese firms responded to foreign demand by overseas production (Figure 19); as such, exports from Japan have not surged due to the prolonged relocation trend. Another data shows that Japan's export volume has been stagnant while export value has risen since 2021 (Figure 20). This illustrates that Japanese enterprises have not seen export volumes grow even during the period of JPY depreciation. Thus, ASEAN+3 economies does not appear to be significantly affected in terms of export competitiveness.

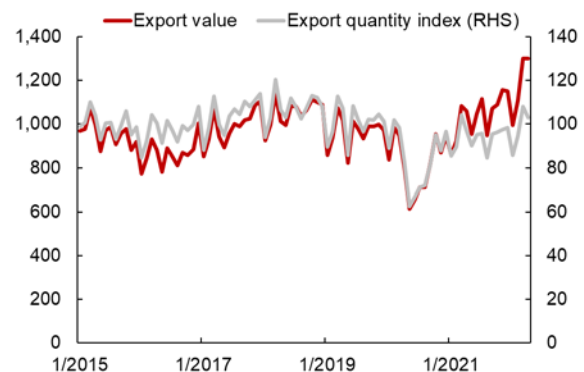
**Figure 19. Overseas Production for Overseas Demand**  
(Percent)



Sources: METI; AMRO staff calculations

Note: The number indicates to what extent overseas production covers overseas demand. Overseas production is calculated by (i) overseas subsidiary production and (ii) overseas subsidiary export to third countries. Overseas demand is calculated by (i) headquarters export, (ii) overseas subsidiary production, and (iii) overseas subsidiary export to third countries. The year is based on Japan's fiscal year.

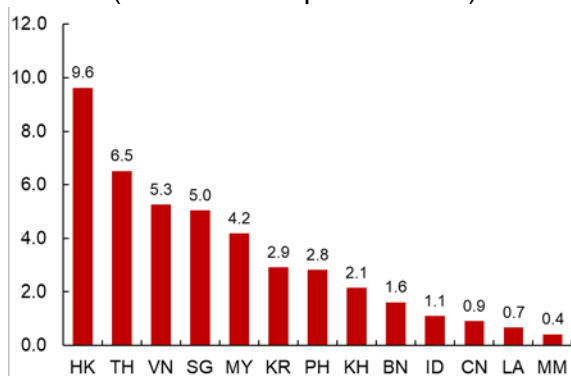
**Figure 20. Exports Values and Quantity**  
(JPY billion; Index 2015=100)



Sources: JMOF; CEIC

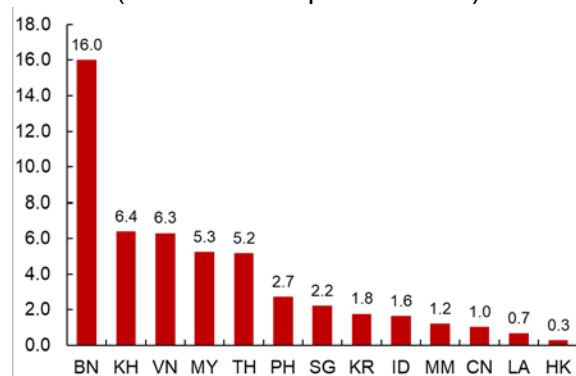
**22. Benefits and risks to the ASEAN+3 economies via direct trade with Japan depend on the countries.** The JPY depreciation indicates a decrease in the price of imports from Japan for ASEAN+3 economies, which is positive for importers. For some ASEAN+3 economies, such as Hong Kong, Thailand, and Vietnam, imports from Japan constituted more than 5 percent of respective GDP in 2021 (Figure 21). The majority of the imports from Japan to the rest of ASEAN+3 economies are machinery and automobiles. On the other hand, the impact of JPY depreciation on exports from ASEAN+3 economies to Japan has been negative. Exports<sup>8</sup> from Cambodia, Vietnam, Malaysia, and Thailand to Japan amounted to more than 5 percent of respective GDP in 2021, which could be affected by the weakening JPY (Figure 22).

**Figure 21. ASEAN+3: Import of Goods from Japan, 2021**  
(Percent of respective GDP)



Sources: IMF; Haver Analytics; AMRO staff calculations.  
Note: The numerator is based on amount of imported goods reported by Japan.

**Figure 22. ASEAN+3: Export of Goods to Japan, 2021**  
(Percent of respective GDP)

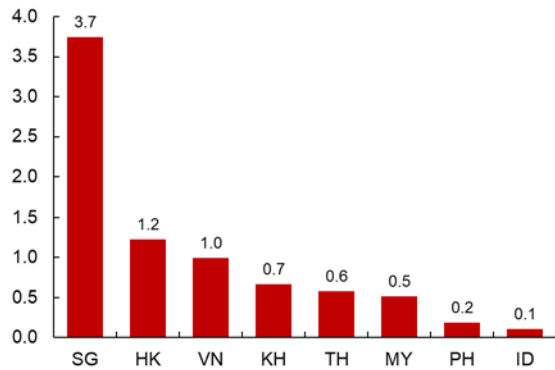


Sources: IMF; Haver Analytics; AMRO staff calculations.  
Note: The numerator is based on amount of exported goods reported by Japan.

**23. Historically, the exchange rate has not influenced Japan's FDI while it might have affected overseas development administration (ODA) project volumes.** FDI from Japan to the rest of ASEAN+3 economies has not been significant in recent years. As of 2021, all of the regional economies reported inward FDI from Japan, but the size remained 1 percent of GDP or less, except for Singapore and Hong Kong (Figure 23). Outward FDI is based on a long-term investment strategy considering potential growth in foreign countries. In that sense, whether the JPY appreciates or depreciates is not likely to have significant impact on the firm's investment decisions. Since 2010, Japan's outward FDI has been on a rising trend, but this time, the USD/JPY exchange rate has fluctuated in both directions, implying that there exist no simple correlations between the exchange rate and outward FDI (Figure 24). Therefore, the spillover effects of the JPY depreciation through the FDI channel are likely to be small. Since 2010, the annual ODA budget has been between JPY500 to 600 billion, with the amount not affected by the exchange rate level. However, generally speaking, the ODA budget is discussed and determined in the JPY term, with the result that exchange rate movements tend to have a non-negligible impact on the actual project volumes.

<sup>8</sup> Exports from Brunei to Japan constitute 16.0 percent of its GDP. However, they comprised mostly of oil that is a global commodity traded in USD and not affected by exchange rates.

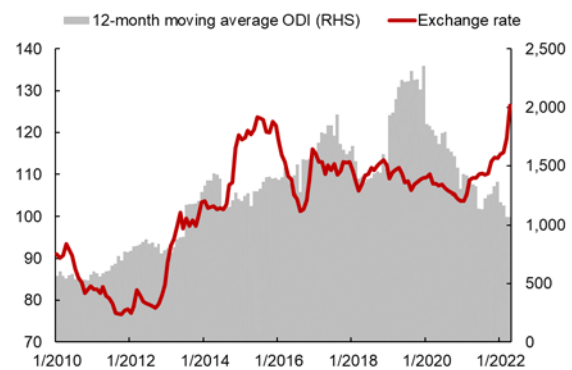
**Figure 23. ASEAN+3: Inward FDI from Japan, as of 2021**  
(Percent of domestic GDP)



Sources: JMOF; CEIC; AMRO staff calculations

Note: The rest of the ASEAN+3 economies with less than 0.1 percent share of domestic GDP are excluded.

**Figure 24. Exchange Rate and Japan's Outward FDI**  
(Yen per U.S. dollar; JPY billion)



Sources: JMOF; CEIC; AMRO staff calculations

24. **On the portfolio flows, a weakening JPY may pose some opportunities and risks for ASEAN economies mainly through Japanese banks' operations.** Motivated by the low core profitability amid the BOJ's ultra-easy monetary policy, Japanese banks have been actively supporting ASEAN countries' large financing needs, particularly in syndicated loans (AMRO, 2019). Despite a swift shift to aggressive rate hikes in other advanced economies, the BOJ's strong commitment to defend the YCC policy will likely incentivize Japanese banks to remain active in the ASEAN economies. Meanwhile, JPY depreciation can help improve repatriated yen-denominated profits from Japanese banks' overseas business. In addition, Japanese banks' large overseas exposure and their interconnectedness make them more vulnerable to overseas credit risks during the Fed's aggressive tightening cycle.



## V. Conclusion

25. **Our analysis indicates that the interest rate differentials and market sensitivity to risk perception have remained key drivers of JPY movements during the COVID-19 pandemic.** Meanwhile, the effects of current account balances and net portfolio investments remained relatively small or statistically insignificant. This is a contrast to the previous episode of 2008-2012 following the GFC when not only the rate differentials but also then-improving current accounts, explained the JPY appreciation. We also find the recent USD/JPY market trends are increasingly driven by oil price movements. The disconnect between Japan's balance of payment flows and the JPY movements is mainly attributable to a persistent increase in Japanese firms' overseas FDI after the launch of Abenomics as their investment incomes tend to be reinvested overseas.

26. **Although a weak JPY may have positive impacts on Japanese economy by boosting export competitiveness, the current rapid pace of JPY depreciation may not be desirable for the Japanese economy facing supply-driven inflationary pressures.** During normal times, JPY depreciation has been assessed to have helped improve corporate earnings and support stock markets, which in turn provided a strong boost for growth momentum. However, the recent sharp JPY depreciation is mainly driven by decoupled monetary policy between the BOJ and the U.S. Fed, as well as Japan's widening trade deficits arising from high energy prices. At the current juncture, the combination of weak JPY and soaring import prices is not necessarily desirable for Japanese firms, especially SMEs, as well as Japanese households, with their production costs, and cost-of-living increasing significantly.

27. **At this juncture, the overall impact of weak JPY on the ASEAN+3 economies is limited, while closer market monitoring and enhanced policy coordination are required against regional financial distress.** The reliance on the JPY as trade settlement currency as well as Japanese firms' solid export performance based on overseas production suggest that weak JPY will not likely lead to a significant impact on the rest of ASEAN+3 economies' trade and export competitiveness. Given the limited role of the JPY exchange rate in determining Japan's FDI and ODA flows into the region, risks from the JPY depreciation for the ASEAN+3 economies are expected to be limited. That said, weak JPY combined with the Fed's anticipated aggressive rate hikes may pose upward pressures on USD funding costs for Japanese banks actively operating in the region.

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