REPORT TO CONGRESS

# Macroeconomic and Foreign Exchange Policies of Major Trading Partners of the United States

U.S. DEPARTMENT OF THE TREASURY • OFFICE OF INTERNATIONAL AFFAIRS

**June 2023**

## Contents



This Report reviews developments in international economic and exchange rate policies and is submitted pursuant to the Omnibus Trade and Competitiveness Act of 1988, 22 U.S.C. § 5305, and Section 701 of the Trade Facilitation and Trade Enforcement Act of 2015, 19 U.S.C. § 4421.[1]

[1] The Treasury Department has consulted with the Board of Governors of the Federal Reserve System and International Monetary Fund management and staff in preparing this Report.

## Executive Summary

Global economic growth turned out stronger in 2022 than expected in the Fall. The IMF lifted its estimate of global growth during 2022 from 1.7% as of October 2022 to 2.0% in April 2023 (measured on a Q4/Q4 basis). Prices of commodities like food and energy have stabilized, supply chain pressures continued to ease, and China's reopening should provide a boost to global growth. Nevertheless, Russia's war against Ukraine continues to weigh on the outlook and has increased energy and food insecurity. Looking forward, the IMF projects global growth to increase in 2023, to 2.9% before increasing to 3.1% in 2024. The global economic outlook continues to face elevated uncertainty as Russia's war enters its second year, core inflation remains high, and financial market stresses emerged.

Global current account imbalances remained elevated in 2022 relative to pre-pandemic levels, as trade and tourism patterns remained disrupted. Rising commodity prices tended to strengthen the current accounts of commodity exporting countries and weaken those of commodity importers. Among major U.S. trading partners, the very large surpluses of Germany, Ireland, Switzerland, Taiwan, the Netherlands, and Singapore have each remained significant as a share of GDP over the four quarters through December 2022. China's surplus was higher in dollar terms at $402 billion over four quarters through December 2022 (2.2% of GDP), roughly $49 billion higher than in the four quarters through December 2021. Meanwhile, the U.S. current account deficit rose modestly to 3.7% of GDP in the four quarters through December 2022, up from 3.6% of GDP in the four quarters through December 2021.

Differing growth and inflation outlooks have led to a range of monetary policy actions across countries, and fundamentals including interest rate differentials, terms of trade shocks, and growth expectations have had large impacts on currencies. In 2022, through October 2022, the dollar strengthened against most major trading partners' currencies, reflecting strong U.S. growth and rising interest rate differentials, as well as safe haven flows. Except for a moderate appreciation against the Indian rupee, the dollar depreciated against all major trading partners' currencies as global financial conditions began to ease in the fourth quarter of 2022.

On net, the dollar finished stronger against nearly all major trading partners. As such, most intervention by U.S. trading partners was in the form of selling dollars, actions that weaken the dollar and strengthen their currency. Thus, it is not a surprise that in calendar year 2022 no country was found to have violated the currency manipulation standard of systematically intervening to gain an unfair competitive advantage. A number of major trading partners did have excessively large current account surpluses, suggesting imbalances in demand and supply across major economies, but currency manipulation was not a driving force in 2022.

The Biden Administration believes market determined exchange rates reflecting economic fundamentals is the appropriate arrangement for the dollar. When major economies face different stresses and accordingly pursue different policies, this will typically be reflected in currency movements. Treasury monitors currency movements and their impact around the world, cognizant that a range of approaches to manage consequences by developing and emerging economies may be warranted in certain circumstances. Treasury is also vigilant in responding to strains that this can present, whether it means a need for help from multilaterals, debt restructuring, or other responses. The Administration strongly opposes attempts by the United States' trading partners to artificially manipulate currency values to gain unfair advantage over American workers. Treasury continues to press other economies to uphold the exchange rate commitments they have made in the G-20, the G-7, and at the IMF. All G-7 members have committed to market determined exchange rates. All G-20 members have agreed that strong fundamentals and sound policies are essential to the stability of the international monetary system and not to target our exchange rates for competitive purposes.[2] All IMF members have committed to avoid manipulating their exchange rates to gain an unfair competitive advantage over other members.

While the present global macroeconomic circumstances — elevated inflation, monetary tightening to slow demand, and dollar appreciation — reduce concerns about current account surpluses, it is important to monitor countries' external balances and whether their production and domestic absorption are broadly aligned.

***Treasury Analysis under the 1988 and 2015 Legislation***

This Report assesses developments in international economic and exchange rate policies over the four quarters through December 2022. The analysis in this Report is guided by Sections 3001-3006 of the Omnibus Trade and Competitiveness Act of 1988 (1988 Act) (codified at 22 U.S.C. §§ 5301-5306) and Sections 701 and 702 of the Trade Facilitation and Trade Enforcement Act of 2015 (2015 Act) (codified at 19 U.S.C. §§ 4421-4422), as discussed in Section 2 of this Report.

Under the 2015 Act, Treasury is required to assess the macroeconomic and exchange rate policies of major trading partners of the United States for three specific criteria. Treasury sets the benchmark and threshold for determining which countries are major trading partners, as well as the thresholds for the three specific criteria in the 2015 Act.

In this Report, Treasury has reviewed the 20 largest U.S. trading partners[3] against the thresholds Treasury has established for the three criteria in the 2015 Act:

(1) A significant bilateral trade surplus with the United States is a goods and services trade surplus that is at least $15 billion.
(2) A material current account surplus is one that is at least 3% of GDP, or a surplus for which Treasury estimates there is a material current account "gap" using Treasury's Global Exchange Rate Assessment Framework (GERAF).

---

[2] For a list of further commitments, see the April 2021 Report on Macroeconomic and Exchange Rate Policies of Major Trading Partners. Available at:
https://home.treasury.gov/system/files/206/April_2021_FX_Report_FINAL.pdf.
[3] Based on total bilateral trade in goods and services (i.e., imports plus exports).

(3) Persistent, one-sided intervention occurs when net purchases of foreign currency are conducted repeatedly, in at least 8 out of 12 months, and these net purchases total at least 2% of an economy's GDP over a 12-month period.[4]

In accordance with the 1988 Act, Treasury has also evaluated in this Report whether trading partners have manipulated the rate of exchange between their currency and the United States dollar for purposes of preventing effective balance of payments adjustments or gaining unfair competitive advantage in international trade.

Because the standards in the 1988 Act and the 2015 Act are distinct, a trading partner could be found to meet the standards identified in one of the statutes without necessarily being found to meet the standards identified in the other. Section 2 provides further discussion of the distinctions between the 1988 Act and the 2015 Act.

### *Treasury Conclusions Related to the 2015 Act*

Treasury has found in this Report that no major trading partner met all three criteria under the 2015 Act during the four quarters ending December 2022.

Switzerland, which had previously exceeded the thresholds for all three criteria under the 2015 Act, exceeded one of the three criteria over the four quarters through December 2022. Though Switzerland no longer meets all three criteria for enhanced analysis, Treasury will continue to conduct an in-depth analysis of Switzerland until it does not meet all three criteria under the 2015 Act for at least two consecutive Reports. Meanwhile, Treasury will also continue its enhanced bilateral engagement with Switzerland to discuss the Swiss authorities' policy options to address the underlying causes of its external imbalances.

### *Treasury Assessments of Other Major Trading Partners*

Treasury has also established a Monitoring List of major trading partners that merit close attention to their currency practices and macroeconomic policies. An economy meeting two of the three criteria in the 2015 Act is placed on the Monitoring List. Once on the Monitoring List, an economy will remain there for at least two consecutive Reports to help ensure that any improvement in performance versus the criteria is durable and is not due to temporary factors. As a further measure, Treasury will add and retain on the Monitoring List any major U.S. trading partner that accounts for a large and disproportionate share of the overall U.S. trade deficit even if that economy has not met two of the three criteria from the 2015 Act. **In this Report, the Monitoring List comprises China, Korea, Germany, Malaysia, Singapore, Switzerland, and Taiwan.**

Japan has been removed from the Monitoring List in this Report, having met only one out of three criteria for two consecutive Reports. Germany, Malaysia, Singapore, and Taiwan are

[4] These quantitative thresholds for the scale and persistence of intervention are considered *sufficient* on their own to meet the criterion. Other patterns of intervention, with lesser amounts or less frequent interventions, might also meet the criterion depending on the circumstances of the intervention.

on the Monitoring List having triggered two criteria.  Korea, and Switzerland triggered just one criterion, but are on the Monitoring List having triggered at least two criteria in the last Report.

China's failure to publish foreign exchange (FX) intervention and broader lack of transparency around key features of its exchange rate mechanism make it an outlier among major economies and warrants Treasury's close monitoring.  It remains on the Monitoring List for this reason as well as due to the outsized trade imbalance.

***Treasury Conclusions Related to the 1988 Act***

The 1988 Act requires Treasury to consider whether any economy manipulates the rate of exchange between its currency and the U.S. dollar for purposes of preventing effective balance of payments adjustments or gaining unfair competitive advantage in international trade.  **In this Report, Treasury has concluded that no major trading partner of the United States engaged in conduct of the kind described in Section 3004 of the 1988 Act during the relevant period.**  This determination has taken account of a broad range of factors, including not only trade and current account imbalances and foreign exchange intervention (the 2015 Act criteria), but also currency developments, exchange rate practices, foreign exchange reserve coverage, capital controls, and monetary policy.

Treasury continues to carefully track the foreign exchange and macroeconomic policies of U.S. trading partners under the requirements of both the 1988 Act and the 2015 Act, and to review the appropriate metrics for assessing how policies contribute to currency misalignments and global imbalances.  The Administration has strongly advocated for our major trading partners to carefully calibrate policy tools to support a strong and sustainable global recovery.  Treasury also continues to stress the importance of all economies publishing data related to external balances, foreign exchange reserves, and intervention in a timely and transparent fashion.

## Section 1: Global Economic and External Developments

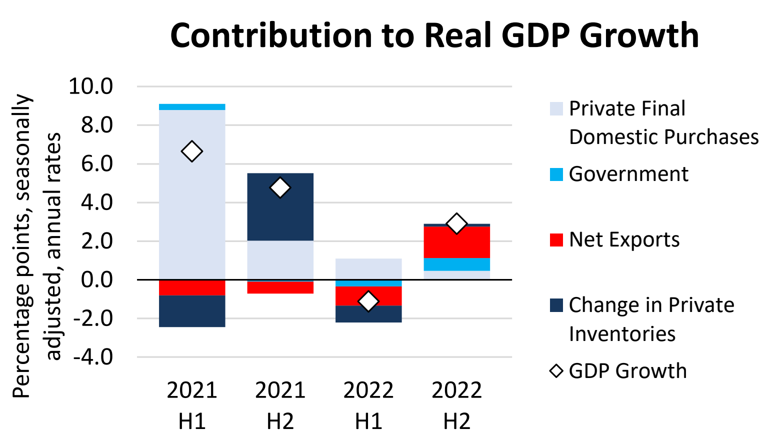
This Report covers economic, trade, and exchange rate developments in the United States, the global economy, and the 20 largest trading partners of the United States for the four quarters through December 2022 and, where quarterly and/or monthly data are available, through end-March 2023. Total goods and services trade of the economies covered with the United States amounted to more than $5.4 trillion in the four quarters through December 2022, about 78% of all U.S. trade during that period.

### *U.S. Economic Trends*

Real gross domestic product (GDP) rebounded in the second half of 2022, after contracting slightly in the first half of the year. Moreover, labor markets remained historically tight in the third and fourth quarters of 2022—with the six-month pace of job creation at roughly double the pace in 2019, just before the pandemic—and there continued to be nearly two job openings for every unemployed person. On the inflation front, price growth began to slow in the second half of 2022 due in part to falling oil prices and improved supply chain performance.

The outlook for growth in the first half of 2023 appears modestly favorable. Real GDP rose 1.1% at an annual rate in the first quarter—though private sector surveys expect weaker growth in the second quarter. Job growth remains very strong with employers adding more than 1 million jobs in the first four months of the year, accompanied by an increase in labor supply. Year-over-year headline inflation continued to slow in the first four months of 2023, reflecting lower prices for energy and moderating food and core inflation. However, both food inflation and core inflation remain elevated.

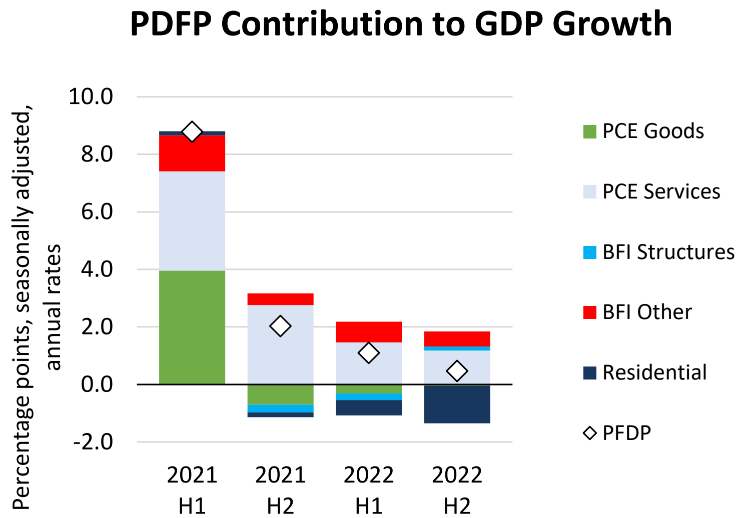
### *Economic Performance in 2022 H2*



*Source: Bureau of Economic Analysis.*

Economic performance during the second half of 2022 reflected improvements in many of the components that had subtracted from growth during the first half of the year. Real GDP grew at a 2.9% annualized pace in the second half of 2022, after declining by 1.1% in the first half of the year. The four major components of GDP (private domestic final purchases, government final purchases, net exports, and changes in private inventories) all contributed to GDP growth in the second half of 2022.

Among those four constituent pieces, private domestic final purchases (PDFP)—that is, the sum of personal consumption expenditures (PCE), business fixed investment, and residential investment—is an especially useful gauge of the most stable and predictive components of output. PDFP contributed 0.5 percentage points to total GDP growth, less than half the 1.1 percentage point contribution in the first half of the year. The smaller contribution reflected a materially steeper decline in residential investment, led by less single-family home construction.

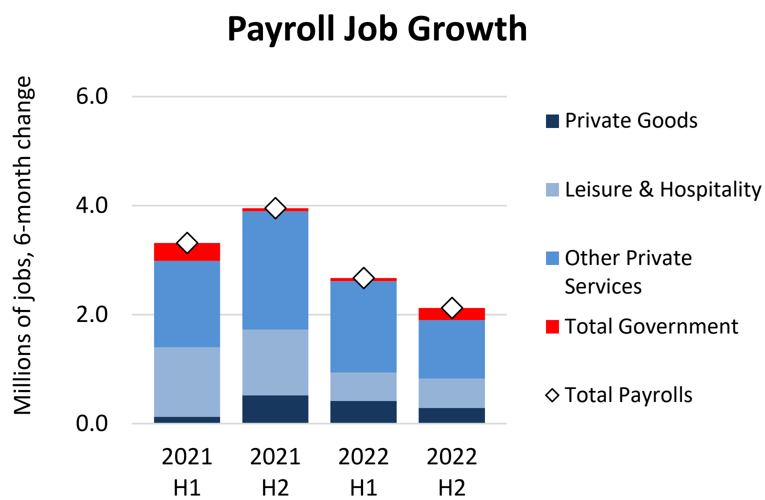


*Source: Bureau of Economic Analysis.*

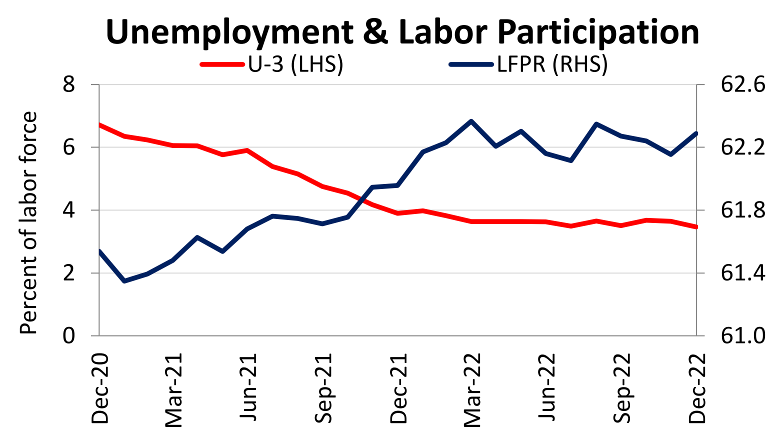
The drag from residential investment, however, was offset by moderate growth in PCE, as well as a stronger advance in business fixed investment. Real PCE continued to reflect a rotation back from goods to services consumption—though it is not clear that the composition of household consumption will fully return to pre-pandemic levels. Meanwhile, the contribution from business fixed investment increased in the second half of 2022. Notably, business spending on structures turned positive as investment in commercial and health care facilities increased for the first time since the first two quarters of 2020.

Among the remaining three drivers of real GDP growth, total government consumption and investment swung from a drag on growth in the first half of 2022 to a contributor in the second half. The international demand component of real GDP also contributed to growth in the second half of 2022. Exports of goods and services rose 5.0% at an annual rate in the second half of 2022, while imports fell 6.4%. Accordingly, the real trade deficit narrowed by $206 billion, following a $177 billion increase in the first half of the year. Meanwhile in the final component of GDP, the contribution from the change in private inventories turned modestly positive in the latter half of 2022, supported by a buildup in manufacturers' goods.

In labor markets, strong job growth persisted into the second half of 2022—though there were some signs that supply and demand were realigning. The historically rapid pace of payroll job creation in 2021 eased throughout 2022 but remained well above that needed to maintain a stable unemployment rate. In the second half of the year, employer payroll growth stepped down to 354,000 jobs per month from 445,000 jobs per month during the first half of 2022. The unemployment rate (U-3), decreased by 0.3 percentage points to 3.6% from December 2021 to June 2022 and eased another tenth to 3.5% by December 2022, matching the five-decade low seen just before the pandemic. The labor force participation rate (LFPR) improved significantly throughout 2021 but fluctuated in a relatively narrow range of 0.4 percentage points throughout the second half of 2022.

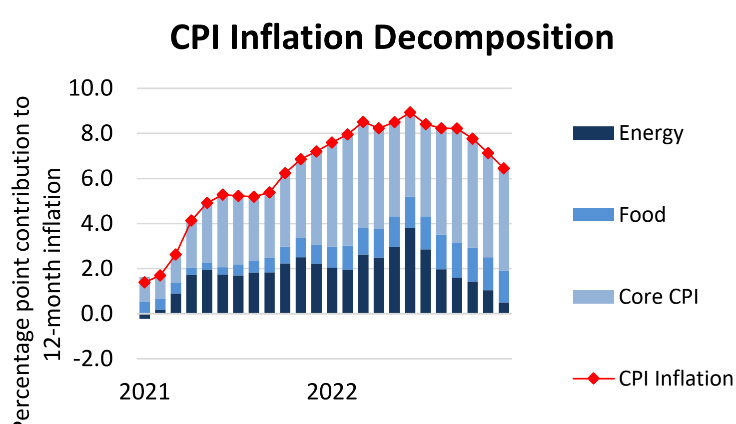



*Source: Bureau of Labor Statistics.*



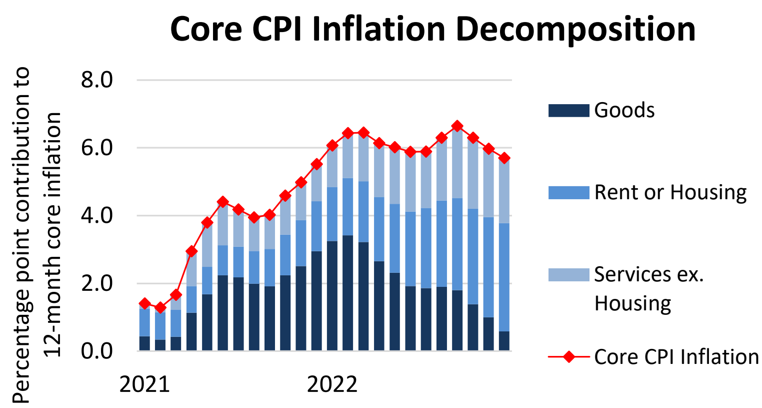

*Source: Bureau of Labor Statistics.*

Inflation in the second half of 2022 reflected improvement in several of the principal drivers of inflation in 2021 and the first half of 2022. Supply and demand mismatches eased as global supply chains recovered from the COVID-19 pandemic, and while Russia's brutal war against Ukraine persisted, the initial shocks to energy and food prices abated by mid-2022. Energy commodities were largely a drag on CPI inflation in the final six months and inflation for food at home also began to slow. As a result, twelve-month CPI inflation peaked in June 2022 at 9.1% and slowed to 6.5% by December. Core CPI inflation (excluding food and energy), however, proved more




*Source: Bureau of Labor Statistics.*

persistent. Over the year through June 2022, core CPI rose by 5.9% and had eased only to 5.7% by December. Stresses in global supply chains have eased, and monthly core goods prices were a drag on inflation throughout the second half of 2022. However, core services inflation remained elevated, reflecting higher demand in a variety of service sectors as well strong growth in price indices for housing (rent of primary residence and owners' equivalent rent) which are reflected in CPI with a lag.



Source: Bureau of Labor Statistics.

***Economic Developments Since December 2022***

In the second estimate for real economic activity in the first quarter of 2023, real GDP rose 1.3% at an annual rate, slowing from 2.9% annualized growth in the second half of 2022. Notably, real PDFP growth, reflecting consumer demand as well as business and residential investment, was 2.9% at an annual rate, nearly 2.5 percentage points above the pace in the second half of 2022. Real consumer spending posted solid increases and residential investment was less of a drag on overall growth. Although business fixed investment weakened, growth of spending on private nonresidential structures remained solid.

For the components of real GDP other than PDFP, the change in private inventories was a significant drag on real economic activity, shaving 2.1 percentage points from growth. By contrast, both public sector and international spending boosted GDP growth. Government consumption and investment was boosted primarily by increased federal defense expenditures, and net exports improved as exports grew faster than imports in the second half of the year.

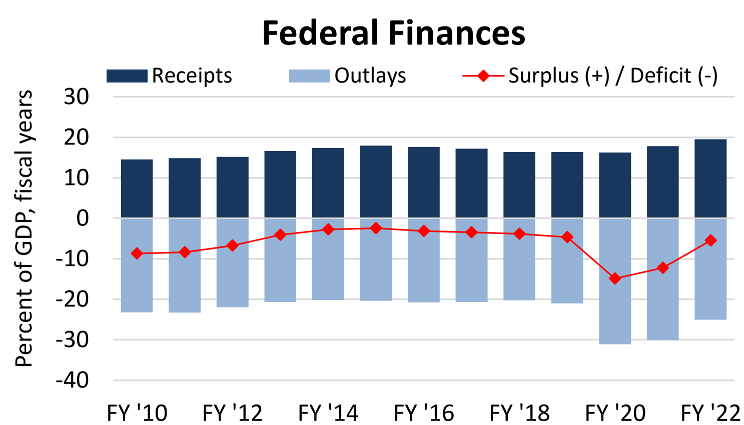
Labor markets remained exceptionally tight in the first four months of 2023, with robust employment gains accompanying an increase in labor force participation. Employers have added 1.1 million jobs since December 2022—notable gains following record employment increases in 2021 and second-strongest performance in 2022. The unemployment rate was 3.4% in April, returning to January's more than five-decade low. In addition, the underemployment rate—which includes marginally attached workers and those working part-time for economic reasons—stood at 6.6%, only slightly above the record low of 6.5% in December. Meanwhile, labor force participation has moved higher in recent months, standing at 62.6% in April, a pandemic recovery high and up 0.4 percentage points on net from a year earlier (it was 63.3% in February 2020). The prime-age (ages 25 to 54) LFPR increased to 83.3% in April, the highest reading since March 2008 and exceeding the February 2020 level by 0.3 percentage points. Still, further improvement in labor force participation would help ease labor market tightness. In March 2023, the ratio of job openings to unemployed persons (1.64) was more than 30% higher that the pre-pandemic peak of 1.2 vacancies, while the quits rate has remained above 2019 values since March 2021. Although both measures have come off their recent record readings (job openings to unemployed peaked at 2.01 in March 2022), they continue to signal a historically tight labor market.

Inflation remained elevated in the first four months of 2023—though 12-month rates have continued to slow from the end of 2022. On a year-over-year basis, CPI inflation was 4.9% in April 2023, down from 6.5% in December 2022 and more than 4 percentage points than the peak in June 2022. Even so, the pace of moderation has been uneven, given the volatility of energy prices, and April's positive reading for energy inflation contributed to the continued high pace of year-to-date inflation. Since December, headline CPI has grown 4.0% at an annual rate. While drag from declining energy prices lessened significantly, impetus from year-to-date food inflation was roughly one-third of that in the second half of 2022. Indeed, prices of groceries (food at home) have decreased for two consecutive months. Meanwhile, year-to-date core inflation has held steady at 5.1% annualized through April 2023—though its composition has changed. Core goods inflation strengthened, largely due to rising prices for durables, while core services inflation was modestly softer owing to modestly slower growth in the cost of housing.

The Federal Open Markets Committee (FOMC) continued to tighten monetary policy in the latter half of 2022 and into 2023—though the degree of tightening eased following slower inflation and tighter credit due to financial sector stress. At the May 2-3 meeting, the FOMC voted to raise its short-term policy rate target (the federal funds rate, or FFR) by 25 basis points to 5.00–5.25%, the highest since September 2007. During his press conference, Chair Powell suggested that "[the peak FFR] may not be far off. Possibly even at [the terminal] level." Nonetheless, he stressed that future FOMC decisions would be data dependent in determining whether "additional policy affirming may be appropriate." The current FFR target range is consistent with the median 2023 year-end estimate in the March Summary of Economic Projections (released every other meeting).

***Federal Finances in Fiscal Year 2022 and H1 of Fiscal Year 2023***

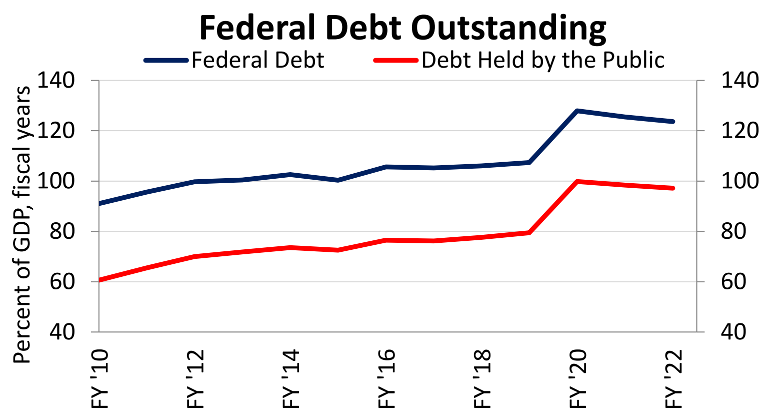
Federal finances have improved significantly over the past several years. In FY 2020, the federal deficit peaked at 14.9% of GDP due to the pandemic and related aid measures to help households and businesses weather the economic shock. Over FY 2021, the deficit decreased to 12.3% of the economy, and fell further to 5.5% of GDP in FY 2022. Between fiscal years 2021 and



*Sources: U.S. Treasury; Bureau of Economic Analysis.*

2022, the federal deficit dropped by $1.4 trillion over the year as pandemic-related aid policy phased out and the economy recovered from the pandemic.

In the first seven months of FY 2023 (October 2022 to April 2023), the federal deficit was $925 billion, up $565 billion from the same period in FY 2022. Outlays increased by $266 billion for the fiscal year to date, led by higher spending in just three major categories. National defense outlays and Social Security spending alone accounted for $100 billion of the increase while net interest payments added another $108 billion. Meanwhile, receipts shrank by $225 billion from the first seven months of FY 2022 to the equivalent period in FY 2023. Individual income taxes dropped $307 billion; about a third of the decrease was due to a sharp increase in refunds. While social insurance and retirement receipts were $75 billion higher—related to robust payroll job growth—contributions from Federal Reserve profits were lower by $70 billion coinciding with the runoff of longer-term securities on the Federal Reserve's balance sheet.

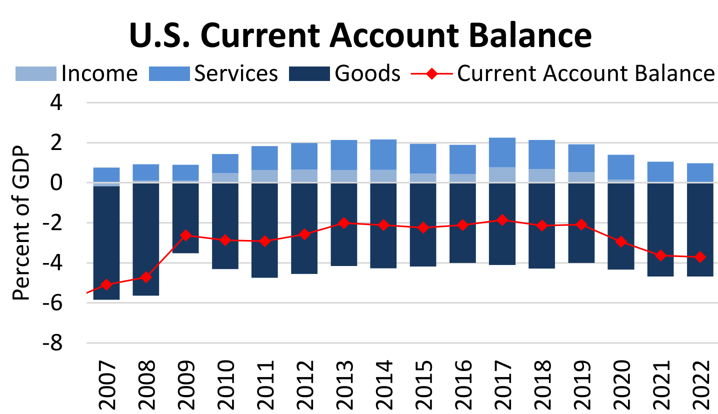


*Sources: U.S. Treasury; Bureau of Economic Analysis.*

At the end of April 2023, gross federal debt stood at $31.5 trillion while debt held by the public was $24.6 trillion.

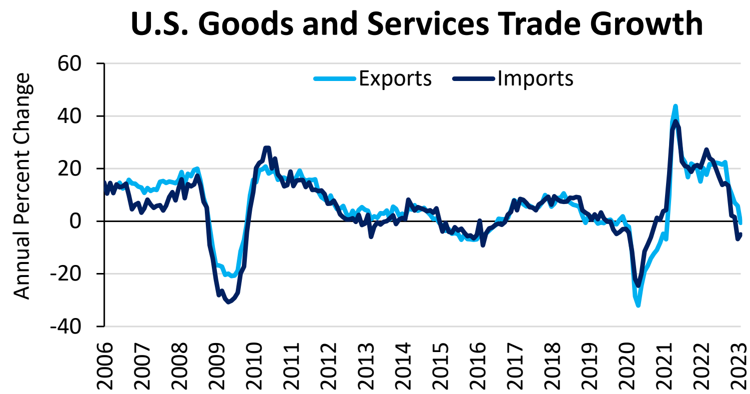
***U.S. Current Account and Trade Balances***

The U.S. current account deficit widened by $97.4 billion to $943.8 billion in 2022. The deficit reached 3.7% of GDP, up slightly from 3.6% in 2021. This increase was driven mainly by a declining services surplus. Goods trade saw increases in both exports and imports which reflected increases in all major components, led by industrial supplies and materials, mainly petroleum and products. From 2013 to 2019, the headline U.S. current account deficit had been quite stable, around 2-2.5% of GDP.



*Sources: Bureau of Economic Analysis, Haver*

The U.S. trade deficit increased slightly over 2022 to 3.7% of GDP from 3.6% in 2021. Overall, the goods deficit widened by around $100 billion or 0.4% of GDP in 2022. The services surplus was relatively stable, increasing just $0.5 billion. Overall, however, trade growth was relatively modest; after peaking in March 2022, the U.S. goods and service trade deficit declined over the course of 2022 reflecting a slowdown in exports and an even larger slowdown in imports. This is likely due to a moderation in trade following the large bounce back in 2021 from the pandemic-related collapse in global trade and potentially some rebalancing in consumption from goods to services, which are less heavily traded than goods. Weakening global growth is also likely weighing on trade.



*Source: U.S. Census Bureau*

At the end of December 2022, the U.S. net international investment position marked a net liability of about $16.1 trillion (63.2% of GDP). The $2.0 trillion change in the net investment position from the end of 2021 to the end of 2022 came from net financial transactions of –$677.1 billion[5] and net other changes in position, such as price and exchange-rate changes, of $2.68 trillion. The stronger dollar in 2022 meant U.S foreign assets denominated in foreign currency lost value in dollars, while the U.S. liabilities are primarily in dollars and do not change with currency fluctuations, generating an exchange rate related loss of over $1 trillion. This was more than offset by changes in the prices of foreign assets and foreign liabilities which resulted in a net gain of over $4 trillion. The value of U.S.-owned foreign assets was $29.7 trillion, while the value of foreign-owned U.S. assets stood at $46.6 trillion.

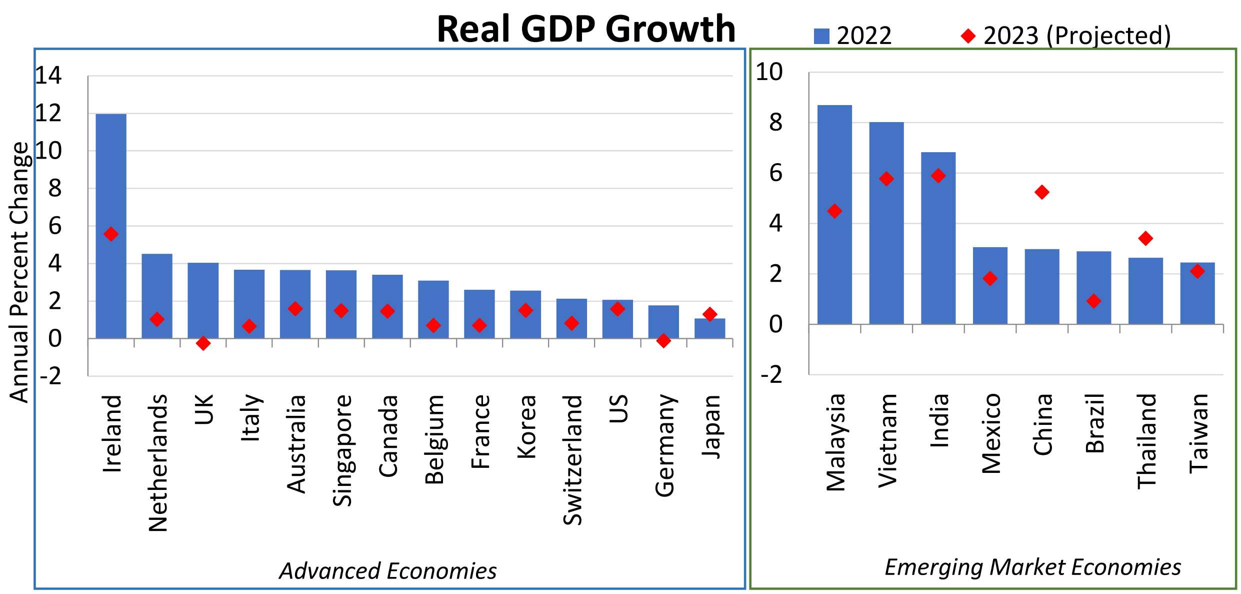
### *International Economic Trends*

Global growth in 2022 proved stronger than projected last fall. The IMF lifted its estimate of global growth during 2022 from 1.7% as of October 2022 to 2.0% in its most recent projections from April 2023 (measured on a Q4/Q4 basis). Prices of commodities like food and energy have stabilized. Supply chain pressures continue to ease. China's reopening should provide a boost to global growth and many emerging market and developing economies continue to fare better than expected thanks in part to improved terms of trade for some, nimble monetary policy, and a healthy build-up of external buffers. Russia's war against Ukraine continues to weigh on the outlook after causing critical commodity prices to soar, which increased energy and food insecurity and exacerbated inflation. Looking forward, the IMF projects global growth to increase in 2023, to 2.9% before increasing to

[5] The net borrowing tracked in financial accounts was notably smaller than that implied by the current account resulting in a statistical discrepancy of $271 billion.

3.1% in 2024, while it expects global headline inflation to fall from 9.2% in 2022 to 5.6% in 2023, and then down to 3.7% in 2024.

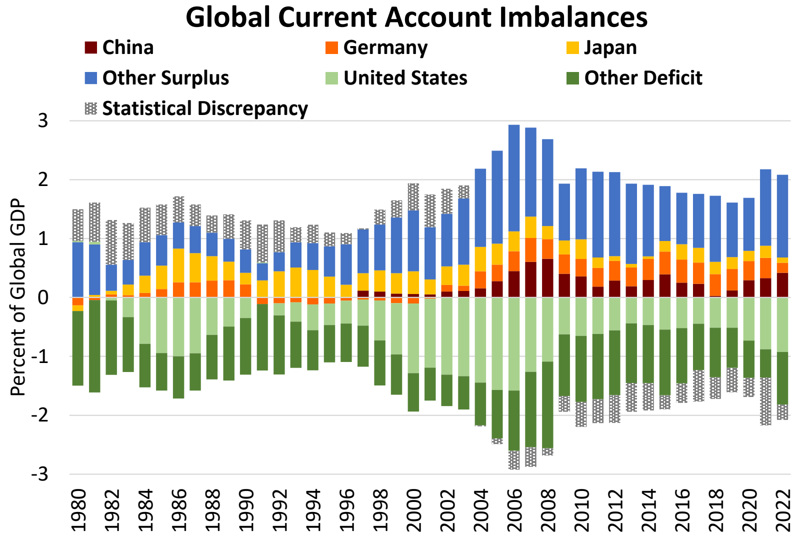
Macroeconomic policies should be carefully calibrated to sustain the economic recovery without exacerbating inflation. Different policy responses will be required to address weak growth, depending on its drivers. Targeted fiscal policy should protect the most vulnerable, while monetary policy should respond in line with central bank mandates. Most emerging market economies continue to have significant buffers to withstand external shocks. Despite the complicated macroeconomic landscape, countries should not back away from efforts to address long-standing structural challenges – including climate change, inequality, and infrastructure investment.



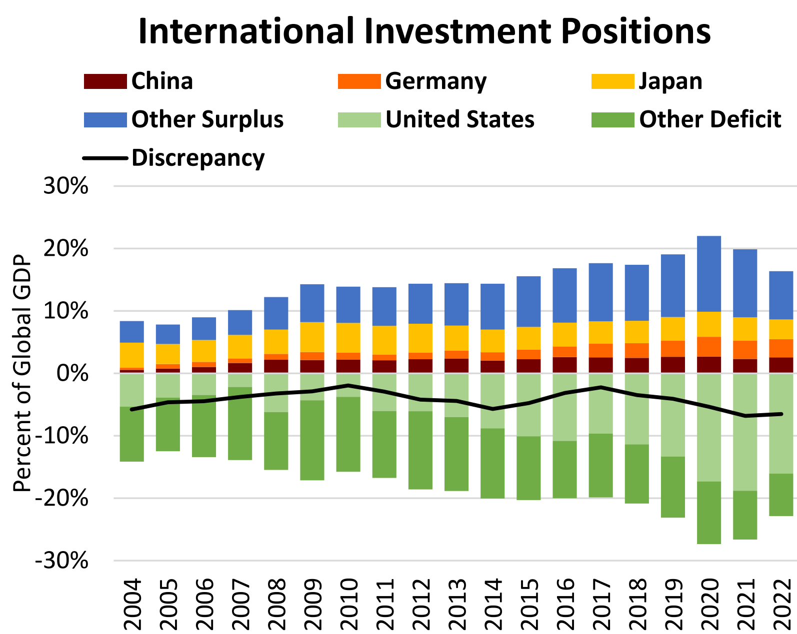

*Source: IMF World Economic Outlook April 2023.*

### *Global Imbalances*

Global current account imbalances[6] were broadly stable in the few years prior to the pandemic before widening over 2020 and 2021. The efforts to contain the COVID-19 pandemic and its negative economic effects led to extraordinary policy responses that contributed significantly to global imbalances. Global current account imbalances remained elevated in 2022 with a notable increase in non-U.S. deficit countries' deficits. Germany's reduction in its current account surplus was offset to some extent by an increase in China's surplus. Historically high energy and commodity prices as a result of Russia's war against Ukraine boosted the external positions of commodity exporters while weakening those of importers.



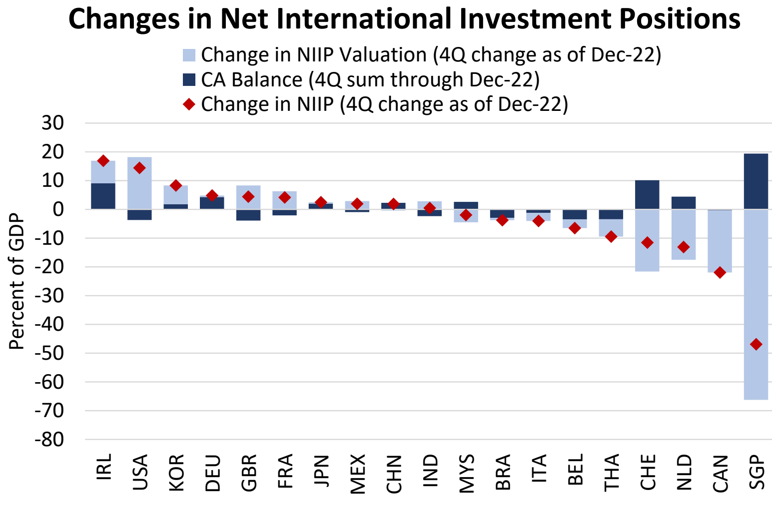

*Sources: IMF WEO, Haver*




*Note: Discrepancy between aggregate creditor and debtor positions reflect any missing country-level data, as well as the global statistical discrepancy. Negative discrepancy values suggest missing data predominantly correspond to net debtor countries.*
*Sources: IMF, Central Bank of China (Taiwan).*

[6] Measured as the sum of the absolute values of current account deficits and surpluses.

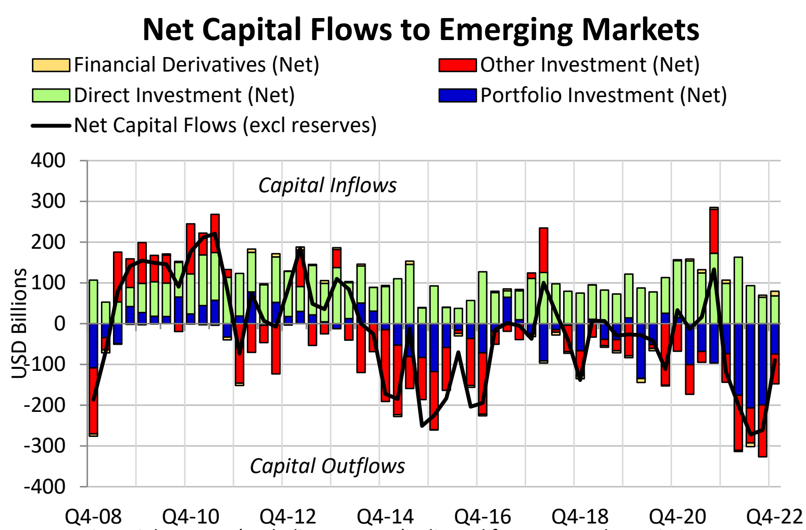
Net international investment positions (NIIP) have narrowed over the last two years relative to the historical peaks reached in 2020. Among major U.S. trading partners, the change in net international investment positions over the four quarters through December 2022 primarily reflect valuation effects. Notably, in the case of Switzerland, the Netherlands, and Singapore, these valuation changes led to decreased net foreign asset positions despite large current account surpluses. Conversely, the NIIP increased in the United States, the United Kingdom, France, and Mexico despite their current account deficits. As asset and liability positions are now large as a share of GDP, when asset prices and exchange rates move considerably, valuation changes can overwhelm annual financial flows.



Sources: Haver, IMF, National Authorities

### *Capital Flows to Emerging Market Economies*

Amid broad-based inflationary pressures, tighter global financial conditions, and mixed signals surrounding the global economic recovery, net capital flows to emerging market economies remained under considerable pressure over the four quarters through December 2022. Total net outflows of FDI, portfolio investment, and other investment reached $690 billion over the course of the year, the largest annual outflow on record in nominal terms, considerably larger than in other recent global capital market events.[7] Combined nonresident net flows decreased though remained positive over the four quarters through

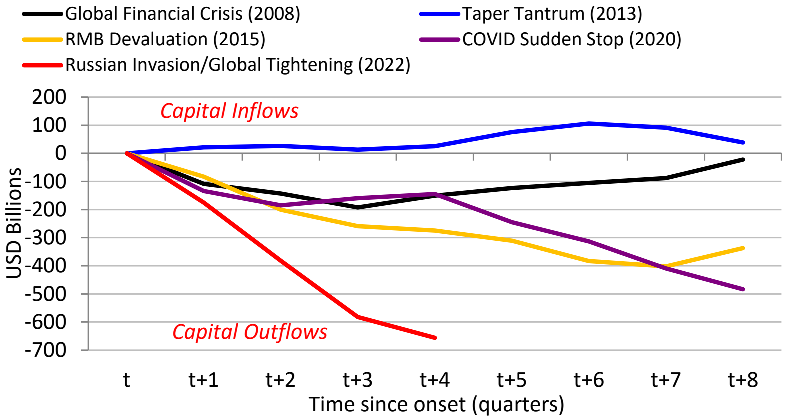


Note: Financial account (excluding reserves) adjusted for errors and ommissions.
2022 reflects data through the end-December where available.
Source: National Authorities, U.S. Department of the Treasury Staff Calculations

[7] Notably, net outflows from Russia equaled $237 billion over the four quarters through December 2022.

December, suggesting that foreign investor demand for emerging market economy assets remained somewhat buoyant, but were outweighed by continued net outflows from residents.[8] During this period, net outflows from emerging markets of portfolio and other investment increased dramatically to more than $1 trillion, roughly $677 billion more than over the course of 2021.[9] On a cumulative basis, net portfolio flows have declined by nearly $660 billion since early 2022 as the onset of Russia's war against Ukraine and tighter global financial conditions weighed on international capital markets. Excluding China, net outflows of portfolio investment from emerging markets have been less pronounced, with a cumulative decline of about $375 billion compared to pre-invasion levels.

**Cumulative Portfolio Flows to Emerging Markets**




*Note: Depicts net resident and nonresident portfolio investment flows on a cumulative basis following particular shock episodes. 2022 reflects data through the end-December where available.*

*Source: National Authorities, U.S. Department of the Treasury Staff Calculations*

On a quarterly basis, net capital flows were largely driven by portfolio and other investment flows over the course of 2022. After beginning to experience net outflows of portfolio investment and other investment in late 2021, emerging markets continued to see net outflows in the first quarter of 2022—outweighing robust foreign direct investment—as Russia's war against Ukraine contributed to a complicated global environment with global financial conditions tightening. During this period, net portfolio outflows across emerging market economies reached a record $175 billion; net nonresident flows retreated from emerging market economies for the first time since the onset of the COVID-19 pandemic, while residents continued to invest abroad. Net nonresident outflows picked up in the second quarter of 2022 and net resident outflows remained relatively unchanged, with overall net portfolio outflows totaling $207 billion, the largest nominal quarterly portfolio outflow on record. During the third quarter, net portfolio flows remained broadly unchanged on an overall basis as resident net outflows decreased and nonresident net outflows increased. Net portfolio outflows narrowed in the fourth quarter but remained at moderately elevated levels of about $75 billion as global financial conditions began to ease, nonresident net flows reversed, and resident net outflows decreased. Notably, net portfolio investment flows retreated from China at a record pace over this time period, with net outflows in the first and second quarters totaling about $80 billion each, and $104 billion in the third quarter amid strong outflows from both residents and nonresidents.

---

[8] These sustained net outflows from residents can reflect both short-term cyclical factors such as changes in global risk appetite as well as long-term, structural characteristics including reduced investment home bias, increased sophistication of domestic investments, and increased access to international markets.

[9] In the case of several emerging markets, substantial monetary policy tightening over the course of 2022 may have helped to lessen the severity of net capital outflows.

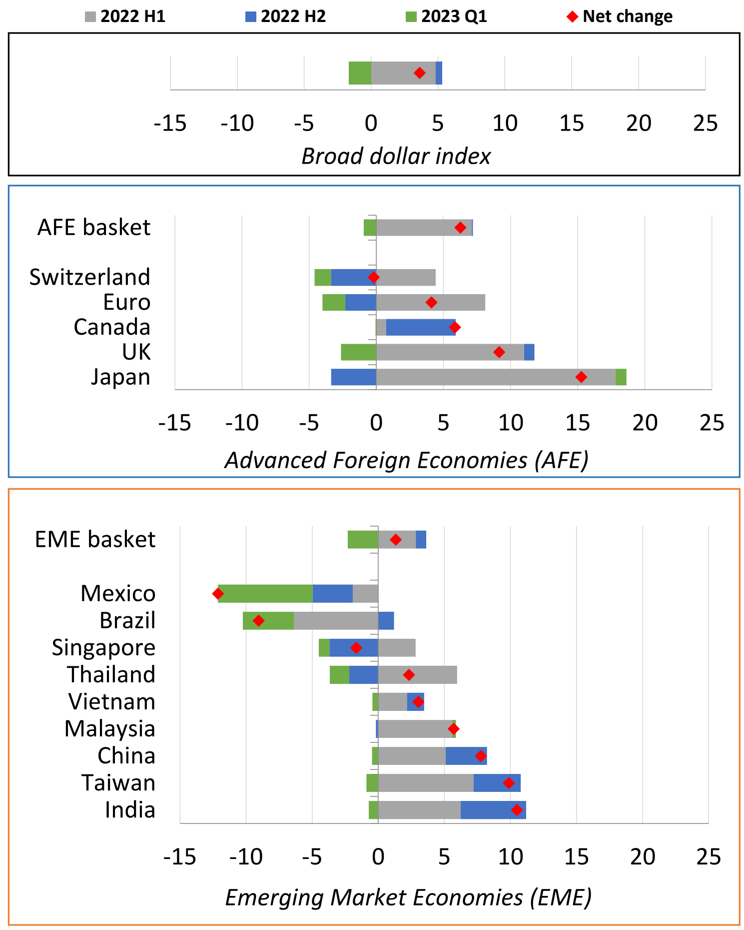
Higher frequency data (from sources beyond quarterly balance of payments data) suggest that, since end-December, nonresident portfolio flows to emerging markets have been mixed, across both equity and debt flows. These measures suggest foreign investors remain relatively sensitive to signals regarding the pace of monetary policy tightening across the global economy, the resilience of the global financial system in the face of recent financial sector developments, and the prospects for continued global growth.

### *Foreign Exchange Markets*[10]

The nominal trade-weighted dollar strengthened 5.3% from end-December 2021 to end-December 2022 as foreign currency movements reflected mixed influences surrounding global inflation, expected monetary policy tightening, and other factors. Over this period, the dollar appreciated most strongly against advanced economy currencies, by about 7.2%, whereas the dollar appreciated against emerging market currencies by just 3.6%. Dollar appreciation occurred predominantly during the second and third quarters of 2022 where the nominal trade weighted dollar rose 4.9% and 5.4%, respectively, as more rapid tightening of monetary policy by the Federal Reserve relative to the rest of the world, continued labor market tightness and persistent inflation pressures in the United States, terms of trade shocks, and safe haven buying weighed on foreign exchange markets.

**U.S. Dollar vs. Major Trading Partner Currencies**

(+ denotes dollar appreciation)
Contribution to percent change between end-Dec. 2021 and end-Mar. 2023




Sources: FRB, Haver

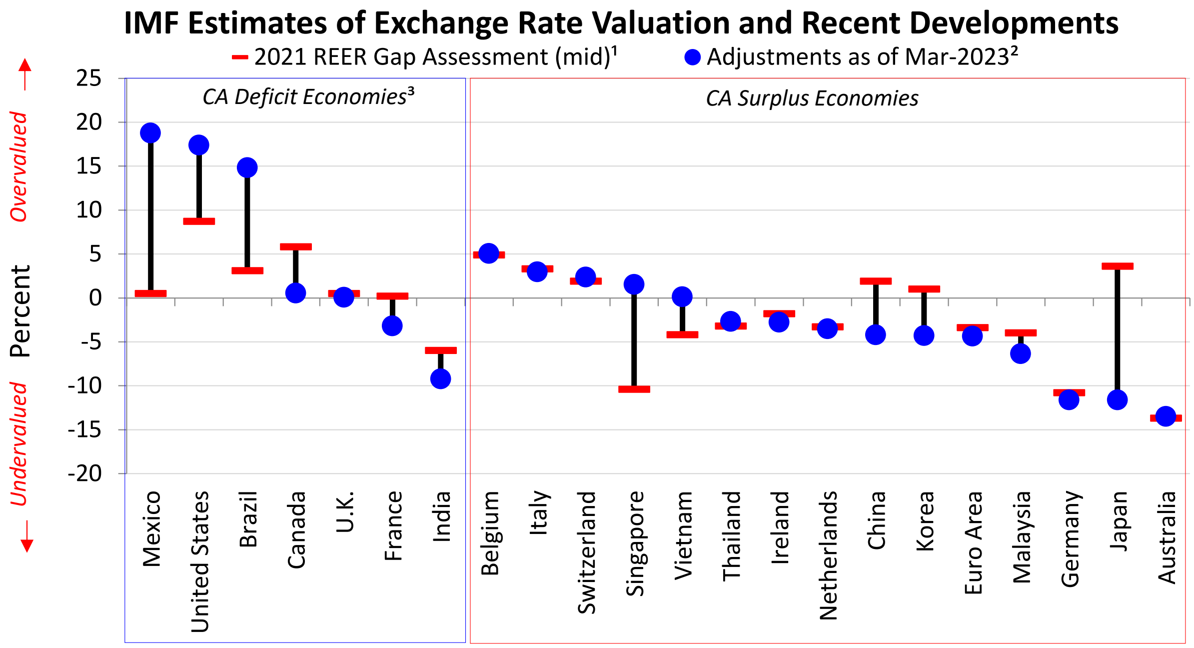
[10] Unless otherwise noted, this Report quotes exchange rate movements using end-of-period data. Bilateral movements against the dollar and the nominal effective dollar index are calculated using daily frequency or end-of-period monthly data from the Federal Reserve Board. Movements in the real effective exchange rate for the dollar are calculated using monthly frequency data from the Federal Reserve Board, and the real effective exchange rate for all other currencies in this Report is calculated using monthly frequency data from the Bank for International Settlements (BIS) or JP Morgan if BIS data are unavailable.

Over the first three quarters of 2022, the dollar appreciated against all other major trading partners' currencies except moderate depreciations against the currencies of Mexico and Brazil. The dollar strengthened against advanced economy currencies in particular, appreciating by nearly 26% against the Japanese yen, 21% against the British pound, and 16% against the euro during this period.

Against this backdrop, several major trading partners intervened to stem the pace of depreciation against the dollar. In September and October 2022, Japanese authorities intervened in currency markets, marking their first intervention in currency markets in almost 11 years. They stated that the interventions aimed to reduce recent heightened volatility of the yen. The Japanese authorities sold $62.3 billion in dollars and purchased yen over these two months, strengthening the value of the yen and pushing back against depreciation.

Except for a moderate appreciation against the Indian rupee, the dollar depreciated against all major trading partners' currencies as global financial conditions began to ease in the fourth quarter. Despite signs of potential financial market strains in March, dollar easing continued against most major currencies in the first three months of 2023, most notably against the Mexican peso and the Brazilian real. The dollar weakened 1.6% on net over the first three months of the year.

From a longer-term perspective, the dollar has retraced most of its movements against currencies of advanced economies and emerging markets since the onset of the pandemic, strengthening by 3% against advanced economy currencies and 3% against emerging market currencies between mid-February 2020 and end-March 2023.




*Sources: IMF 2022 External Sector Report, IMF 2022 Article IV Consultation Staff Report for Ireland, IMF 2022 Article IV Consultation Staff Report for Vietnam, BIS REER Indices, JP Morgan, FRB.*
*1/The IMF's estimate of real effective exchange rate (REER) gap (expressed as a range) compares the country's average REER in 2021 to the level consistent with the country's medium-term economic fundamentals and desired policies. The midpoint of the gap range is depicted above.*
*2/Change between 2021 average REER and end-March 2023. Because the REER level consistent with the country's medium-term economic fundamentals and desired policies changes over time, these adjustments provide partial information about current exchange rate misalignments.*
*3/Economies sorted based on whether they were more frequently in deficit or surplus over the past five years.*
*Note: The IMF does not provide an estimate of Taiwan's REER gap.*

On a real effective basis, the dollar appreciated 4.7% from end-December 2021 to end-March 2023, while the real broad dollar remained 16.3% above its 20-year average. In its most recent assessment, the IMF continued to judge the dollar to be overvalued on a real effective exchange rate basis. Meanwhile, the real effective exchange rates of several major trading partners have adjusted considerably. Some economies that the IMF assessed to be undervalued in 2021 have adjusted substantially or appreciated through March 2023 relative to the 2021 average (e.g., Singapore, Vietnam, and Thailand), while others have adjusted minimally or depreciated substantially over the same period (e.g., the Netherlands, Ireland, Malaysia, Euro area, Japan, Australia, and Germany). However, these adjustments only provide partial information about current exchange rate misalignments, especially given that the significant movements in currencies over the course of 2022 reflected multiple macroeconomic fundamentals. In particular, terms of trade shocks or policy rate differentials can temporarily affect equilibrium levels without meaning that exchange rates have departed from fundamentals.

### *Foreign Exchange Reserves*

Global foreign currency reserves totaled $11.9 trillion over the four quarters through end-December 2022, a decline of roughly $1 trillion relative to end-December 2021. Data on the stock of global foreign exchange reserves, the currency composition of global reserves, and assumptions regarding the asset composition of foreign exchange reserve assets (see footnote 26 on p. 44), suggest this decrease was driven predominantly by estimated net sales of $952 billion in foreign exchange, as well as an additional $340 billion decline due to valuation effects resulting from dollar appreciation over this period. Estimated interest income of $283 billion offset a portion of the decline. However, balance of payments data, which isolate flows of reserve assets from valuation effects, paint a different picture. The most recent and available quarterly balance of payments data suggest the fall in foreign exchange reserves was largely due to total valuation effects, contributing a decline of $887 billion, while net sales of foreign exchange only contributed a decline of $122 billion. This discrepancy highlights the sensitivity of estimates to assumptions about the asset and currency composition of reserves, and further underscores the importance of transparent and timely data on foreign exchange interventions.

Despite the decline in global foreign currency reserves, Treasury assesses that the economies covered in this Report continue to maintain broadly ample—or more than ample—reserves based on standard adequacy benchmarks. Reserves in most of these economies are more than sufficient to cover short-term external liabilities and anticipated import costs. Moreover, the most recent IMF assessments of adequacy based on composite metrics across most emerging market economies for 2022 also suggest reserves are broadly adequate. For economies where reserves are substantially/significantly below adequate levels, authorities should rebuild precautionary buffers gradually over the medium term in a manner that does not exacerbate global imbalances and is consistent with necessary macroeconomic adjustment.

**Table 1: Foreign Exchange Reserves**

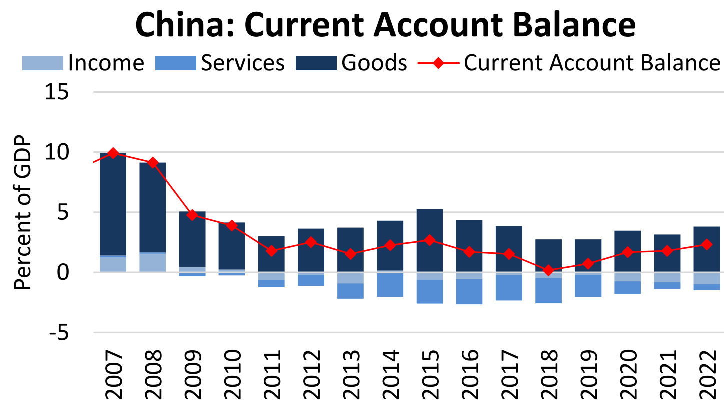
| | FX Reserves (USD Bns) | 1Y Δ FX Reserves (USD Bns) | FX Reserves (% of GDP) | FX Reserves (% of ST debt) | FX Reserves (% of IMF ARA Metric)* |
|---|---|---|---|---|---|
| China | 3,127.7 | -122.5 | 17% | 247% | 106% |
| Japan | 1,108.2 | -175.1 | 26% | 36% | .. |
| Switzerland | 848.5 | -185.3 | 105% | 72% | .. |
| India | 498.0 | -71.9 | 15% | 386% | 165% |
| Taiwan | 554.9 | 6.5 | 73% | 297% | .. |
| Korea | 399.0 | -39.3 | 24% | 239% | 97% |
| Singapore | 279.8 | -128.5 | 60% | 23% | .. |
| Brazil | 293.9 | -37.0 | 15% | 434% | 136% |
| Thailand | 195.6 | -29.2 | 39% | 287% | 228% |
| Mexico | 174.8 | -6.0 | 12% | 319% | 116% |
| UK | 110.3 | -17.5 | 4% | 2% | .. |
| Malaysia | 105.3 | -1.9 | 26% | 96% | 110% |
| Vietnam | 84.7 | -22.7 | 21% | 201% | .. |
| Canada | 79.7 | 1.6 | 4% | 8% | .. |
| France | 52.8 | -0.8 | 2% | 2% | .. |
| Italy | 46.6 | -2.0 | 2% | 4% | .. |
| Australia | 38.5 | 1.1 | 2% | 10% | .. |
| Germany | 36.7 | -0.3 | 1% | 1% | .. |
| Belgium | 11.1 | -0.1 | 2% | 2% | .. |
| Netherlands | 5.2 | -0.1 | 1% | 0% | .. |
| Ireland | 5.6 | -0.3 | 1% | 0% | .. |
| | | | | | |
| United States | 37.2 | -3.5 | 0% | 0% | .. |
| | | | | | |
| World | 11,905.5 | -1,007.6 | n.a. | n.a. | .. |

*Foreign exchange reserves as of end-December 2022.*
*GDP caluclated as sum of rolling 4Q GDP through Q4-2022.*
*Short-term debt consists of gross external debt with original maturity of one year or less, as of the end of Q4-2022; Vietnam as of Q2-2022.*
** IMF Assessing Reserve Adequacy Metric, a composite measure of reserve adequacy, as of end-2022. China's reserves are compared to the IMF's capital controls-adjusted metric. The IMF assesses reserves between 100-150% of the ARA metric to be adequate.*
*Sources: National Authorities, World Bank, IMF, BIS.*

## *Economic Developments in Selected Major Trading Partners*

### *China*

China's economic growth slowed considerably in 2022, with real GDP growth decelerating to 3.0% from 8.1% in the previous year. Elevated uncertainty amid periodic large-scale lockdowns to curb the spread of COVID-19 and heightened stress in the property sector significantly weakened private domestic demand. Soft private demand also reflected China's unbalanced macroeconomic policy response to the pandemic, which favored infrastructure investment and support for manufacturing firms over direct support for households. Adding to these challenges, external demand declined over the second half of the year. In the final months of 2022, the authorities abandoned their "zero-COVID" policy and announced measures to support the property sector, mitigating two major growth headwinds. Partially as a result of these developments, China's near-term growth outlook has improved, with the IMF projecting growth at 5.2% in 2023, but remains subject to important downside risks related to the strength of both domestic and external demand and continued financial stability risks in the property sector.



*Sources: SAFE, Haver*

China's current account surplus widened to 2.2% of GDP in 2022 from 2.0% of GDP in 2021, driven primarily by an expansion of China's goods trade surplus to 3.7% of GDP from 3.2% in the previous year.[11] The increase in the goods trade surplus primarily reflected weak domestic demand, with import volumes contracting more sharply than export volumes last year. The services trade deficit remained subdued at 0.5% of GDP in 2022, largely due to restrictions on outbound travel. China's income deficit widened to 1.0% of GDP in 2022 from 0.6% of GDP in 2021, primarily reflecting a substantial widening of the investment income deficit in the second quarter of 2022.

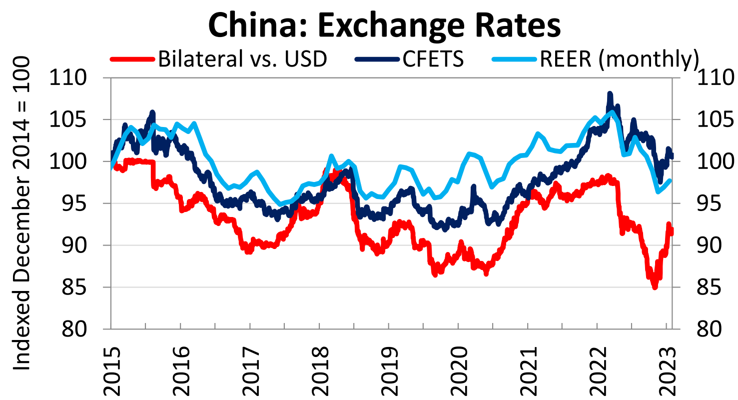
China's bilateral goods trade surplus with the United States remains by far the largest of any U.S. trading partner, growing to $383 billion in 2022 from $353 billion in 2021. China ran a bilateral services trade deficit of $16 billion in 2022, down from a deficit of $18 billion in 2021. Overall, China's bilateral goods and services surplus with the United States reached $367 billion last year.

China's financial account deficit expanded significantly to $211 billion in 2022 from $30 billion in 2021. The rapid shift in China's financial account was primarily the result of a large swing in China's portfolio investment balance to a record-high deficit of $281 billion from a surplus of $51 billion in the previous year. These portfolio outflows mostly reflected portfolio debt outflows by both residents and nonresidents amid a growing divergence in monetary policy stances between China and advanced economies. A rapid decline in FDI inflows over the course of 2022 also contributed to the overall shift in the financial account, with the net FDI surplus falling to $30 billion in 2022 from a surplus of $165 billion in 2021. These trends were partially offset by a large swing in the other investment balance to a surplus of $45 billion last year from a deficit of $257 billion in the

[11] These trade statistics are based on China's official balance of payments data compiled by the State Administration of Foreign Exchange (SAFE). Separate trade data from China's General Administration of Customs imply a much larger goods trade surplus of 4.9% of GDP in 2022. Treasury's use of SAFE data is not meant to imply that these data are more accurate but is instead motivated by these data's consistency with other components of the balance of payments. An official report published by SAFE in September 2022 suggests that part of the discrepancy between SAFE and Customs data may be explained by changes to SAFE's statistical treatment of trade conducted from multinational corporation-owned facilities in China's tariff-free zones.

previous year, primarily due to a reduction in China's overseas loans and financial claims.[12] A net errors and omissions deficit of $91 billion suggests strong undocumented capital outflows not captured in identified components of the financial account, in line with previous years.

The RMB depreciated by 7.7% against the dollar and 3.8% against the People's Bank of China's (PBOC's) China Foreign Exchange Trade System (CFETS) nominal basket in 2022.[13] The real effective exchange rate weakened by 7.9% last year (lower inflation in China than its trading partners meant the real exchange rate depreciated more than the nominal). The RMB's sharp nominal depreciation last year occurred primarily during two distinct episodes between mid-April and mid-May and between mid-August and the end of October. Both episodes occurred during periods in which the dollar was appreciating rapidly on a nominal effective basis and China's domestic growth outlook was deteriorating amid COVID-related developments and property sector stress. The RMB reversed its depreciation trend in the final two months of the year, as the broad dollar depreciated, and China's growth outlook improved amid anticipated easing of the zero-COVID policy and additional policies aimed at reviving growth. In early 2023 the RMB was more stable, ending the first quarter 0.4% stronger against the dollar and 1.2% stronger against the CFETS basket.



*Sources: CFETS, FRB, BIS*

China provides very limited transparency regarding key features of its exchange rate mechanism, including the policy objectives of its exchange rate management regime and its activities in the offshore RMB market. Recently, the authorities have publicly indicated that they have reduced the magnitude and frequency of intervention in foreign exchange markets, but their lack of transparency makes it impossible to verify this claim.[14]

The PBOC manages the RMB through a range of tools including setting the central parity rate (the "daily fix") that serves as the midpoint of the daily trading band. Chinese authorities can directly intervene in foreign exchange markets as well as influence the interest rates of RMB-denominated assets that trade offshore, the timing and volume of forward swap sales and purchases by China's state-owned banks, and the conversion of foreign exchange proceeds by state-owned enterprises (SOEs).

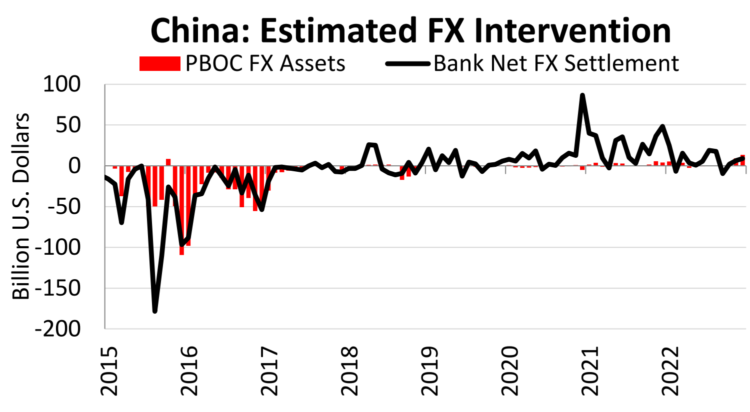
The authorities implemented several regulatory and administrative measures last year to counteract RMB depreciation pressures. The PBOC announced reductions in the foreign

[12] Excluding China's SDR allocation, the other investment deficit was $299 billion in 2021.
[13] The CFETS RMB index is a trade-weighted basket of 24 currencies published by the PBOC.
[14] "Yi Says China Largely Ended Currency Intervention in Market Tilt," *Bloomberg,* April 15, 2023.

currency required reserve ratio in April and September, loosening onshore FX liquidity conditions during periods of rapid RMB depreciation. In September, the PBOC also re-imposed a reserve requirement on financial institutions that sell FX forwards to clients. The following month, the PBOC increased the cross-border financing macroprudential adjustment parameter, permitting resident banks and corporates to increase fund raising from nonresidents. Throughout the RMB's depreciation episode between mid-August and the end of October, the PBOC consistently set the daily fix at a level significantly stronger than the market consensus forecast, which market participants interpreted as the authorities signaling their discomfort with the pace of depreciation. Moreover, multiple press reports provide evidence that during this same period the Chinese authorities privately instructed Chinese banks to take actions to resist depreciation pressure, including limiting dollar purchases and increasing dollar sales in exchange for RMB in both onshore and offshore FX markets.[15] These measures follow a nearly two-year period during which Chinese policymakers pursued measures that had the effect of counteracting RMB appreciation pressures.

China's lack of transparency and use of a wide array of tools complicate Treasury's ability to assess the degree to which official actions are designed to impact the exchange rate. Treasury will continue to closely monitor China's use of exchange rate management, capital flow, and regulatory measures and their potential impact on the exchange rate.

China's headline foreign exchange reserves decreased by $123 billion in 2022, ending the year at $3.1 trillion. This represents the largest annual decline in China's headline reserves since 2016. This decline is likely due in large part to valuation effects associated with dollar appreciation and declining asset prices; however, China's lack of transparency on the composition of its reserves makes it difficult to confidently estimate the size of these valuation effects. China is an outlier among the economies covered in this Report in not disclosing its foreign exchange market intervention, which forces Treasury staff to estimate China's direct intervention in the foreign exchange market through the following two proxy measures. The PBOC's foreign exchange assets booked at historical cost, the first proxy measure for foreign exchange intervention, increased by $27 billion last year. Meanwhile, net foreign exchange settlement data, another proxy measure that includes the activities of China's state-owned banks, recorded net foreign exchange purchases of $88 billion in 2022, adjusted for



*Sources: PBOC, SAFE, U.S. Treasury Estimates*

---

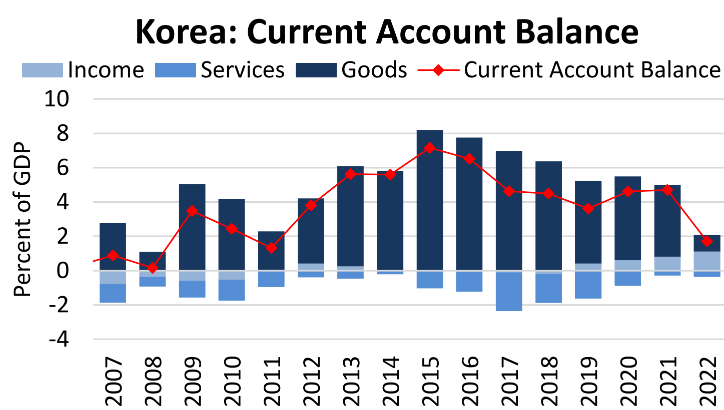
[15] "China Regulator Warns Banks Against Yuan Selling," *Reuters*, August 24, 2022. "China's State Banks Told to Stock Up for Yuan Intervention," *Reuters,* September 29, 2022. "China's State Banks Seen Acquiring Dollars in Swaps Market to Stabilize Yuan," *Reuters,* October 17, 2022. "China's State Banks Sold Dollars to Support Yuan Late on Tuesday – Sources," *Reuters,* October 25, 2022.

changes in outstanding forwards.  As noted in previous Treasury FX Reports, the divergence between these two proxy measures could be an indication that monthly changes in the PBOC's foreign exchange assets are not adequately capturing the full range of China's intervention methods.  Overall, these developments highlight the need for China to improve transparency regarding its foreign exchange intervention activities.

The authorities should use available policy space to support the recovery in private domestic demand following the end of the zero-COVID policy in a manner that does not exacerbate economic imbalances or risks to financial stability.  China should prioritize measures to bolster household disposable income and consumer confidence through both direct fiscal support and structural reforms, including improvements to the social safety net and continued liberalization of the household registration (*hukou*) system.  Making greater use of the central government's available fiscal space would help to mitigate stresses on local governments' finances.  Near-term measures to support the property sector should be carefully calibrated to mitigate moral hazard while the authorities enhance insolvency and resolution procedures.  The authorities should respond to declining returns from China's traditional growth drivers by recommitting to reforms aimed at reducing factor misallocation, including limiting the role of SOEs and lowering barriers to firm entry and exit to support productivity growth.

*Korea*

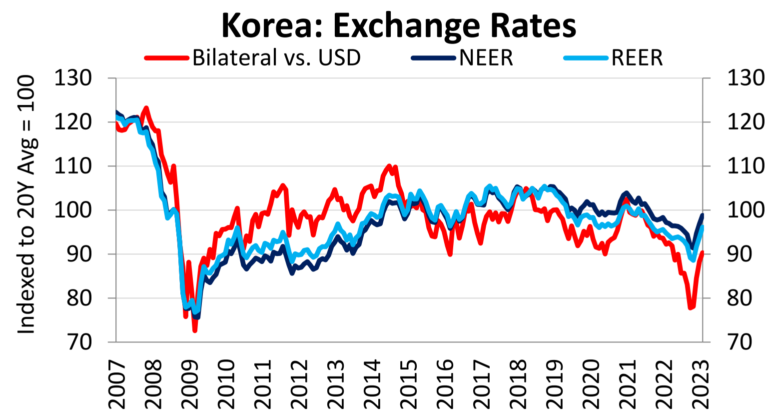
Korea's real GDP grew by 2.6% in 2022 after a 4% expansion in 2021.  Growth was led by strong private consumption and supportive government spending, which helped buoy the Korean economy amongst a weakening in the external sector.  The IMF projects growth to decelerate to 1.5% in 2023.  The Korean government passed a budget that expects to reduce the projected 2023 fiscal deficit to approximately -0.6% of GDP, from a 2022 deficit of -3.3% of GDP following the second supplemental budget.  Korea's central bank tightened monetary policy from August 2021 through January 2023 to address financial imbalances and above-target inflation, before holding its policy rate at 3.5% in recent meetings.



*Sources: Bank of Korea, Haver*

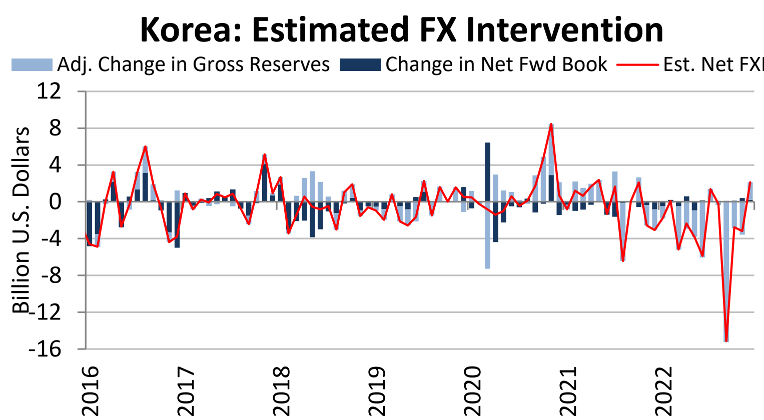
Korea's current account surplus declined sharply to 1.8% of GDP in 2022 from 4.7% a year prior. The decline was driven by a decrease in Korea's goods surplus due to weakening external demand and increased energy import prices.  Some of the decline was offset by an increase in income balance, which posted its largest surplus on record driven predominantly by investment income from abroad.  Moderation in Korea's current account surplus continues a narrowing trend that began in 2015 and more recently reflects some normalization of pandemic-induced demand for Korean exports, coupled with rising energy prices as a result of Russia's war against Ukraine. Korea's bilateral trade surplus with the United States, inclusive of goods and services, increased to $36 billion in 2022, up from $22 billion in 2021.

Despite the relatively sharp depreciation against the dollar, the real effective index did not move nearly as much in 2022, as many of the currencies of Korea's trading partners also weakened against the dollar. The Korean won depreciated in 2022, weakening 5.7% against the dollar and 1.8% on a real effective basis. Since weakening considerably in September and October 2022, the won has appreciated 9.8% against the dollar from end-September 2022 through end-March 2023 as dollar strength moderated. Sizeable equity outflows stemming from rising global interest rates also contributed to won weakness in 2022. Korea's national pension fund's total foreign asset holdings decreased by around $16 billion over the four quarters ending in December 2022, from $336 billion to $320 billion, likely driven by changes in valuations of foreign assets.



*Sources: FRB, Bank for International Settlements*

Korea reported net foreign exchange sales of $46 billion (2.7% of GDP) in the spot market over the four quarters ending in December 2022 as Korean officials intervened to curb the won's depreciation amid the global strengthening of the U.S. dollar. Treasury estimates that the Korean authorities sold foreign exchange at increasing amounts throughout the first three quarters of 2022 in line with increasingly rapid won depreciation over the course of the year. Treasury estimates sales moderated in the fourth quarter in line with reduced depreciation pressures on the won. Korea publicly reports its foreign exchange intervention on a quarterly basis.[16] Korea should limit currency intervention to only exceptional circumstances of disorderly foreign



*Sources: Bank of Korea, U.S. Treasury estimates*

[16] Treasury's estimates are monthly and are based on interest-adjusted changes in foreign currency reserves from monthly balance of payments statistics as well as changes in the central bank's forward position. Treasury estimated $31 billion in estimated net foreign exchange sales through the four quarters ending in December 2022. Differences in estimated Bank of Korea operating profits likely drove the gap between Treasury's estimate and the Korean authorities' reported intervention figure.

exchange market conditions.  The authorities' recently announced measures to improve the operations of and access to the Korean foreign exchange market; these include expanding trading hours, allowing the direct participation of foreign financial institutions in the onshore interbank FX market, developing FX market infrastructure, and establishing cooperative relationships between local and foreign financial institutions.  Korea maintains ample foreign exchange reserves at $399 billion as of December 2022.

After supporting the economic recovery from the COVID-19 pandemic, the Korean authorities have deployed monetary and fiscal policies to arrest inflation and financial imbalance concerns while continuing to support vulnerable households.  Going forward, the authorities should consider utilizing their sizable fiscal capacity to support equitable and green growth policies that will raise incomes for vulnerable workers while undergirding energy security and economic resilience, while avoiding an unnecessarily rapid fiscal expansion.  Progress on structural reforms, such as encouraging broad-based participation in the labor market, strengthening social safety net programs, decreasing administrative burdens on starting businesses, reducing non-tariff trade barriers, and integrating carbon reduction commitments into economic planning would help secure economic opportunity for disadvantaged workers, reduce old-age poverty, increase business dynamism, and insulate Korea from external energy shocks.

*The Euro Area*

Despite posting relatively strong growth of 3.5% in 2022 overall, economic activity flatlined with 0.0% annualized growth in the fourth quarter.  The euro area averted the most dire analyst projections of an economic downturn in late 2022, and while risks are becoming more balanced, they remain tilted to the downside with heightened financial sector vulnerabilities, ongoing spillovers from Russia's war against Ukraine, and continued adverse pandemic-related effects.  The IMF expects euro area growth to remain subdued at just 0.8% in 2023, with some intra-bloc variation including Germany's economy contracting by 0.1% and Spain's economy growing by 1.5%.

Even prior to Russia's war against Ukraine, the euro area's aggregate fiscal policy posture was set to remain supportive through 2022.  Russia's war led to further outlays, as governments attempted to shield consumers and businesses from the impacts of rising energy prices, accelerate the drive toward energy independence from Russia, bolster defense spending, and respond to the influx of refugees.  Given these expenditure needs, the European Commission announced that fiscal rules contained within the EU's Stability and Growth Pact would continue to be suspended until 2024.  The Commission's proposal to reform these rules—currently under negotiation with EU finance ministers and the European Parliament—would provide some additional flexibility for counter-cyclical spending and more realistic debt reduction paths.  In the meantime, the Commission did not advocate for a broad fiscal impulse in 2023.  Instead, the ECB and European Commission continue to encourage member states to pursue temporary, targeted, and tailored energy assistance so as not to introduce additional inflationary pressures by supporting aggregate demand.  The Commission's budget guidance for 2024 similarly encourages member states to return to a path of debt and deficit consolidation.

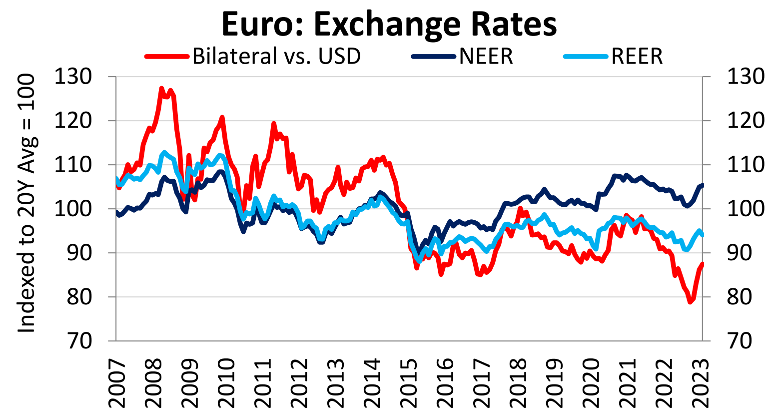
Fiscal measures are funded in part through the roughly $822 (€750) billion Next Generation EU (NGEU) pandemic recovery package agreed in July 2020. NGEU is now operational, with $115 (€105) billion in grants and $52 (€47) billion in loans from the Recovery and Resilience Fund (RRF)—the main component of the NGEU—distributed to member states thus far. The RRF consists of up to $370 (€338) billion in grants and $423 (€386) billion in loans. While member states have applied for all of the RRF's grants, roughly $241 (€220) billion in lending capacity remains, with some capacity earmarked for the REPowerEU program. The European Commission has proposed repurposing these unallocated funds to allow member states to enact key components of the EU Green Deal Industrial Plan, including as state aid to "net-zero" industries.

High euro area inflation, driven in part by Russia's war against in Ukraine, accelerated the ECB's policy normalization timetable. This monetary tightening cycle—the most aggressive in the ECB's history—has proved to be a challenging task as the ECB attempts to pursue its sole *de jure* mandate of inflation targeting while also considering a weak outlook for the real economy and pursuing its *de facto* goal of sovereign yield management. The central bank has raised its key rates 375 basis points since July 2022, with the deposit rate now at 3.25%. Prior to the war, the pace of net asset purchases under its Pandemic Emergency Purchase Program (PEPP) and Asset Purchase Program (APP) had slowed from end-October 2021; net asset purchases under the PEPP ended as of April 2022 and under the APP as of July 2022. Following this slowdown in net purchases, the ECB began reducing its balance sheet in March 2023, reducing its APP portfolio by €15 billion per month by not fully reinvesting payments from maturing securities, and expects to discontinue APP reinvestments as of July 2023. To counter fragmentation risks, the ECB has committed to flexibly reinvest PEPP redemptions as a first line of defense and created a new Transmission Protection Instrument (TPI) that, if triggered, allows for effectively unlimited purchases of sovereign bonds "to counter unwarranted, disorderly market dynamics that pose a serious threat to the transmission of monetary policy across the euro area."

While the recovery gained momentum, so too did inflation, with headline inflation peaking at 10.6% year-on-year in October 2022 as Russia's war against Ukraine compounded price pressures. Though headline inflation declined to 6.9% year-on-year by March 2023 as energy pressures faded and base effects took hold, inflation expectations remain elevated as core inflation remains sticky, increasing to 5.7% year-on-year in March 2023. In March, the ECB's baseline scenario projected headline inflation of 5.3% in 2023. The ECB anticipates that inflation will return to the target level of 2% in the second half of 2025.

The euro area current account deficit equaled 1.1% of GDP in 2022 as supply chain disruptions, COVID-19 outbreaks, and high imported energy prices weighed on the euro area's typically strong external position; the bloc saw a more typical current account surplus of 2.3% of GDP in 2021. The IMF expects the eurozone to return to a small current account surplus of 0.6% of GDP in 2023. In its August 2022 External Sector Report, the IMF assessed that the euro area's external position in 2021 was moderately stronger than the level implied by medium-term fundamentals and desirable policies.

The euro reached a two-decade low against the dollar in September 2022 as widening interest rate differentials between the United States and Europe supported dollar strength. While the euro remained 11% weaker against the dollar from end-2020 to March 2023, it has retraced most of its losses since the beginning of Russia's war against Ukraine as euro area economic activity remained more resilient than many analysts expected when the war began. In real effective terms, the euro depreciated 3.0% between end-January 2022 and end-March 2023. The ECB publishes its foreign exchange intervention and has not intervened in foreign exchange markets since 2011.



Sources: FRB, Bank for International Settlements

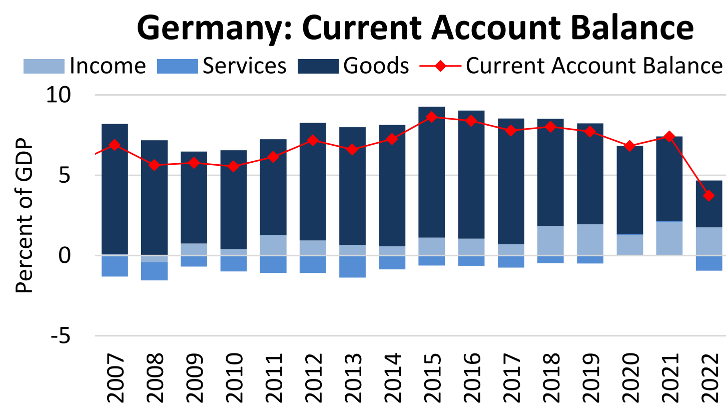
*Germany*

Despite struggling under the weight of continued COVID-related supply disruptions, high energy prices, and other spillovers from Russia's war against Ukraine, German economic output expanded by 1.8% in 2022, year-on-year. Economic growth in the first three quarters was driven by private consumption. The German economy markedly lost momentum toward the end of the year, with gross domestic product contracting by 0.4% in the fourth quarter, quarter on quarter, as private consumption slowed and construction and machinery gross capital formation decreased.

With Russia's war creating new economic headwinds across Europe, and Germany being particularly impacted by energy supply issues, the IMF's April 2023 WEO forecasts near zero German real GDP growth in 2023. The German Council of Economic Experts expects Germany to narrowly avoid recession in 2023, with an expected real GDP growth of 0.2%. The short-term outlook for the German economy has improved compared to the Fall of 2022, with Germany avoiding a winter energy crisis, maintaining a resilient labor market, and strengthening its public finances. After three years of expansive utilization of fiscal space to combat the impacts of the coronavirus pandemic, the German finance minister has committed to technical compliance with the debt brake in 2023. If implemented as planned, the government would eliminate the use of off-budget "special funds," which the government employed to provide funds to modernize the German military and shield households and business from higher energy costs.

German inflation reached the highest levels since the 1990s in October 2022 at 11.6%, year on year. The rate has steadily decreased since, falling to 7.8% year on year in March 2023, with inflationary pressures expected to continue to ease over the course of 2023. Recent inflationary declines have been driven primarily by a decrease in energy inflation, partially offset by an increase in food prices. For example, the average price of natural gas in Europe in the first half of March 2023 was around €46 per MWh, around 80% lower than at its peak in August 2022.

Germany's current account surplus contracted by $160 billion to $174 billion in 2022, falling by more than three percentage points of GDP to 4.3%. This represents the largest decline since German reunification and the lowest surplus since 2003. Despite this contraction, the persistence of Germany's external imbalances, taken together with the country's slowing growth and planned reinstatement of the debt brake, runs counter to needed changes to the domestic industrial base due to changes in energy supply and trade patterns in the wake of Russia's war against Ukraine. Germany has run a large surplus as a share of GDP for well over a decade as production is consistently above domestic absorption. A major economy with such a consistently large surplus requires offsetting borrowing on a persistent basis by the rest of the world on net.



*Source: Deutsche Bundesbank*

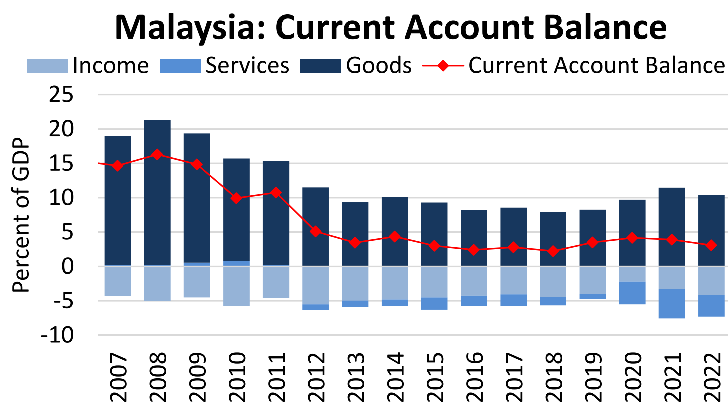
Germany's bilateral trade surplus with the United States has more than doubled since the creation of the euro. Germany's bilateral goods and services trade surplus with the United States stood at over $76 billion in 2022, roughly $3 billion more than 2021, the largest since 2015.

While Treasury recognizes that the German government took strong fiscal measures in response to COVID-19 and Russia's war against Ukraine, Germany still needs to significantly improve its chronic spending under-execution, which contributed to persistent pre-pandemic fiscal surpluses. Prior to the pandemic, Germany's approved budgets called for fiscal balance, but stronger-than-forecast revenues and under-execution of spending plans resulted in fiscal surpluses averaging 1.3% of GDP between 2014 and 2019. As the public health crisis is overcome and recovery takes hold, Treasury encourages the government to deploy fiscal tools in 2023, 2024, and beyond, including through strengthening efforts to combat climate change, enhance energy security, and reinvigorate investment—which would help external rebalancing proceed at a reasonable pace and contribute to both global and euro area rebalancing.

*Malaysia*

Malaysia's economy registered robust growth of 8.7% in 2022, on the back of a recovery in private spending and investment. The authorities project 4.0-5.0% growth in 2023 supported by China's reopening (and associated demand for commodities), a continued rebound in tourism, and resilient labor markets. While the authorities began to wind down

COVID-19 related spending in 2022, they provided significant fiscal support to buffer households and businesses from the shocks to global energy and food prices stemming from Russia's war against Ukraine. As a result, the fiscal deficit is estimated to have shrunk modestly to roughly 5.0% of GDP in 2022 (from 6.4% of GDP in 2021). Given the strong growth outturn, Malaysia's public debt-to-GDP fell to 60% in 2022 from its peak of 63% in 2021, still only narrowly below the government's statutory debt limit of 65% of GDP. With subsidies and other administered prices helping limit the rise in headline inflation—which stood at 3.4% year-over-year in March—Bank Negara Malaysia (BNM) has tightened monetary policy gradually. BNM raised its key policy rate a cumulative 100 basis points in 2022 to 2.75%, and in May 2023 increased an additional 25 basis points to 3.0%.

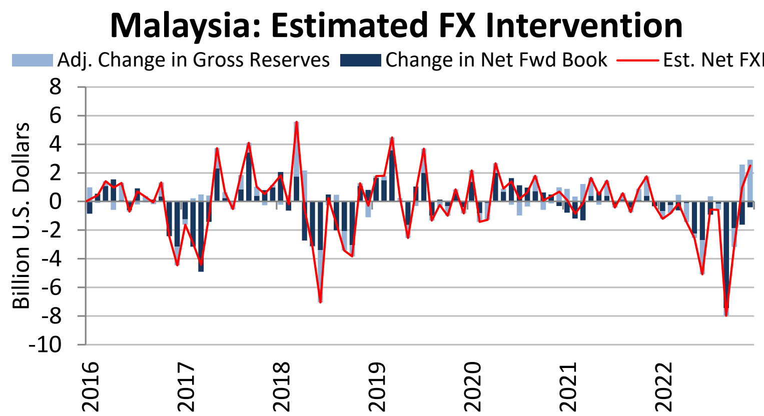


*Source: Department of Statistics Malaysia*

Malaysia runs perennial current account surpluses, though they have narrowed substantially since 2008 and stood at 3.0% of GDP over the four quarters through December 2022. Malaysia's goods surplus narrowed roughly one percentage point to 10.4% of GDP last year as import growth modestly outpaced export growth. Meanwhile, Malaysia's services deficit shrunk as inbound tourism—which averaged 5.7% of GDP in the five years prior to the pandemic—began to recover. The income deficit widened to 4.2% of GDP from a deficit of 3.3% of GDP one year prior, largely reflecting a fall in direct investment income. Over the last decade, the IMF has consistently assessed Malaysia's external position to be stronger than the level implied by medium-term fundamentals and desirable policies (with its assessment ranging from moderately to substantially stronger depending on the year).

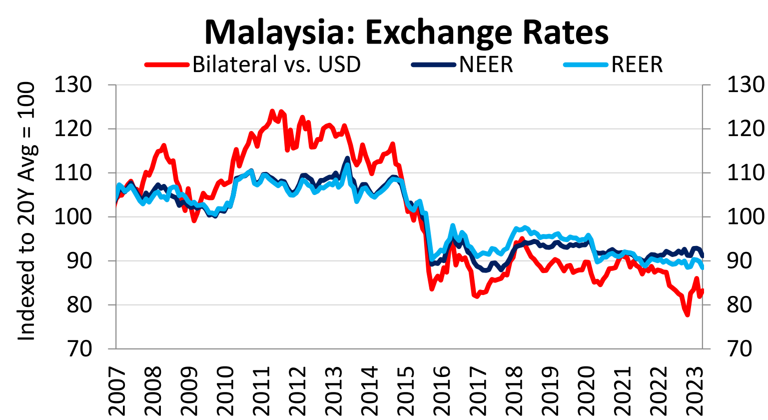
Malaysia's goods and services trade surplus with the United States reached $36.6 billion in 2022. Malaysia and the United States have strong supply chain linkages in key industries, particularly electronics and related parts. Conversely, Malaysia engages in relatively limited bilateral services trade with the United States—about $7 billion in gross bilateral services trade flows in the four quarters through December 2022. On net, bilateral services trade was roughly in balance.

Malaysia has established a track record of two-way intervention in the foreign exchange market in recent years. Malaysia does not publish data on its foreign exchange intervention; however, the authorities have conveyed credibly to Treasury that net sales of foreign exchange in 2022 were $25.3 billion or 6.2% of GDP. According to internal Treasury estimates, net sales accelerated over the middle of 2022 amid net portfolio outflows as the authorities leaned against depreciation pressures on the ringgit, and then switched to net purchases in the fourth quarter when the ringgit faced appreciation pressures. Foreign exchange reserves stood at around $105 billion at end-December 2022, down roughly $2 billion compared to end-2021. Reserves remain broadly adequate according to standard adequacy metrics, including that of the IMF.



Sources: Bank Negara Malaysia, U.S. Treasury estimates

On net, the ringgit depreciated 5.1% against the U.S. dollar in 2022. Despite weakness against the dollar, the ringgit appreciated 2.0% on a nominal effective basis in 2022. Over the same period, the ringgit appreciated 0.3% on a real effective basis.



Sources: FRB, Bank for International Settlements

The authorities should upgrade the scale and coverage of the social protection system and pursue targeted public investments to help foster inclusive and sustainable growth and support external rebalancing. This could be done in a fiscally prudent way by rolling back broad, untargeted subsidies. The authorities should also continue to allow the exchange rate to move in line with economic fundamentals and limit foreign exchange intervention to circumstances of disorderly market conditions, while avoiding excessive accumulation of reserves.

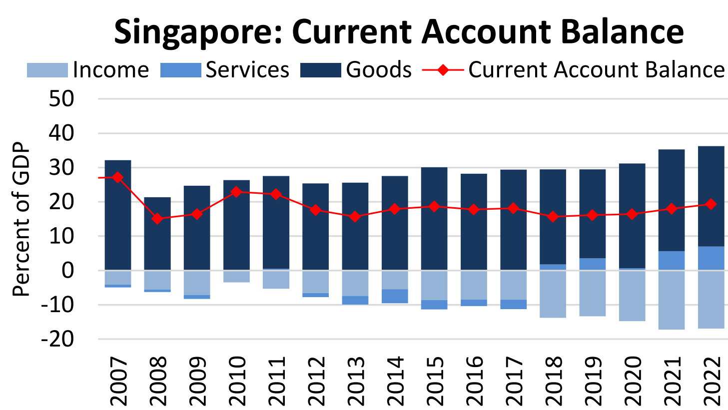
*Singapore*

Singapore recovered strongly from the pandemic, with 8.9% growth in 2021 followed by continued above-trend growth of 3.6% in 2022. The economic outlook has softened entering 2023—with growth turning negative in the first quarter—as domestic activity cooled from the lagged effect of prior monetary tightening and exports were weighed down by slowing external demand. The authorities project real GDP growth will register 0.5–

2.5% this year amid still-elevated inflation and drags from weaker activity in trade-related sectors, particularly the global electronics industry.

The authorities' fiscal year 2023 budget (April 2023-March 2024) aims to narrow the deficit from 0.3% to 0.1% of GDP, returning to the broadly balanced budget stance that has typically been maintained in recent decades outside of crisis periods. In January, the authorities raised the goods-and-services tax (GST) from 7% to 8% and will raise it further to 9% in 2024. To help mitigate the effects of the GST increase on households, the authorities are providing income-dependent GST rebates and cash payouts totaling around 0.3% of GDP annually over the next five years.

The Monetary Authority of Singapore (MAS), which uses an exchange-rate based regime for implementing monetary policy, was one of the first central banks in the region to initiate a tightening cycle in response to burgeoning inflation pressures. MAS began tightening monetary policy in October 2021, and has since further tightened monetary policy four times, including two off-cycle moves in January and July 2022. Nonetheless, price pressures remain elevated amid both high global inflation and a relatively tight domestic labor market. As of March 2023, headline inflation stood at 5.5% year-on-year and core inflation 5.0% year-on-year. MAS projects that inflation will remain elevated in the near term but should ease in the second half of 2023 as imported inflation continues to fall and domestic wage growth moderates.

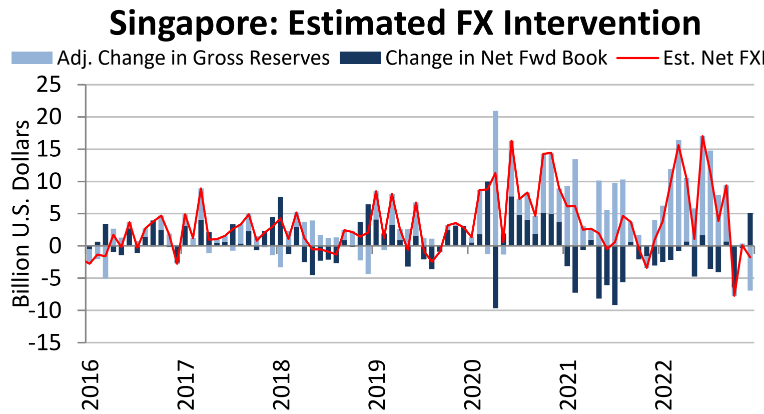



*Sources: Monetary Authority of Singapore, Department of Statistics*

Singapore's outsized current account surplus averaged 17% of GDP over the last ten years and reached 19.3% of GDP in the four quarters through December 2022, owing primarily to a massive goods surplus, offset in part by a sizable income deficit. The IMF has consistently assessed Singapore's external position to be substantially stronger than warranted by economic fundamentals and desirable policies. Singapore's long history of large current account surpluses has pushed its net international investment position to around 170% of GDP, one of the highest levels in the world, leaving it open to very large swings in NIIP due to valuation as was seen this year.

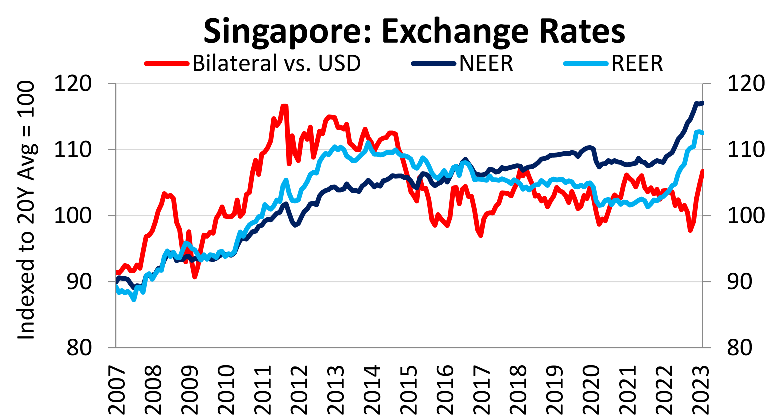
Singapore has historically run bilateral trade deficits with the United States in both goods and services trade, and in 2022 these widened to $15 billion and $21 billion, respectively. Key Singaporean services imports from the United States include research and development, intellectual property, and professional and management services. The Singapore goods deficit with the United States reflects in part Singapore's role as a regional transshipment hub, with some of Singapore's imports from the United States ultimately intended for other destinations in the region.

Unique among advanced economies, MAS uses the nominal effective exchange rate as its primary tool for monetary policy. MAS intervenes in the foreign exchange market to manage the nominal effective exchange rate of the Singapore dollar and implement its policy. In October 2022 and April 2023, MAS published data on intervention covering calendar year 2022. Net purchases of foreign currency totaled $73 billion in 2022, equivalent to 15.6% of GDP. Net purchases were concentrated in the first half of 2022, with intervention activity becoming more two-sided by the fourth quarter. Official foreign exchange reserves totaled $280 billion (60% of GDP) at end-December 2022. Despite MAS's significant net purchases of foreign exchange, official reserves held by MAS declined in 2022 as MAS transferred more than $170 billion of excess reserves to the Singaporean government for longer-term management by GIC, one of Singapore's sovereign wealth and investment funds.[17] In addition to the reserves held by MAS, Singapore's government also has access to substantial official foreign assets managed by GIC and a second sovereign wealth and investment fund, Temasek.



*Sources: Monetary Authority of Singapore, U.S. Treasury estimates*

The Singapore dollar appreciated 0.9% against the U.S. dollar in 2022. Meanwhile, the Singapore dollar rose strongly against most other currencies in the region, in some cases reaching record highs against other trading partners, as MAS tightened monetary policy. Consequently, the Singapore dollar appreciated 8.2% and 9.5% on a nominal effective and real effective basis, respectively, in 2022.



*Sources: FRB, Bank for International Settlements*

[17] From March 2022, Singapore's government began employing a new type of non-marketable security to facilitate the transfer of excess official reserves from MAS to the government. The Reserves Management Government Securities (RMGS) are issued by the government to MAS in exchange for excess reserves at the time of transfer. Additional information about RMGS may be found here: https://www.mas.gov.sg/statistics/reserve-statistics/reserves-management-government-securities.

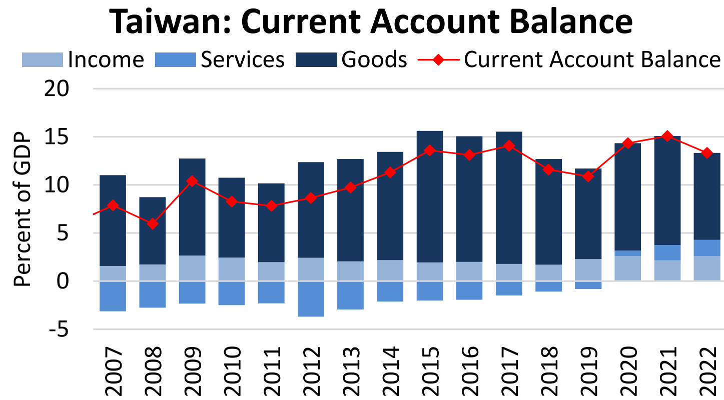
Singapore's policies, including the recent increases in consumption taxes have constrained consumption and have pushed domestic saving to levels that are nearly unmatched among high-income economies and generated one of the largest net foreign asset positions in the world. Policy reforms that durably strengthen consumption, diminish precautionary saving incentives, and transfer wealth to households would help address external imbalances. Key policies include loosening fiscal policy on a structural basis, bolstering social support, increasing green and climate-resilient investment, reducing mandatory pension contribution rates, and giving households greater ownership and control over pension assets. Further appreciation of the nominal and the real effective exchange rate over the medium term, consistent with economic fundamentals, should also continue to play a role in facilitating external rebalancing. The authorities should refrain from one-sided foreign exchange intervention and excessive reserve accumulation. In this context, the significant net purchases in 2022 acted to stem appreciation when inflation was running above target and Singapore maintained a large current account surplus.

*Taiwan*

Taiwan's real GDP grew by 2.5% in 2022, down from 6.5% in 2021. Growth in 2022 was driven by private consumption, with government consumption and fixed asset investments also contributing positively to growth, but net exports weighed on growth due to increased energy prices, COVID-19 lockdowns in China, and a decline in global semiconductor demand. In February 2023, the Legislative Yuan passed a special bill to boost the economy by allocating the authorities' surplus tax revenue stemming from strong corporate tax receipts. The measure includes, among other items, direct cash subsidies to citizens, subsidies for small- and medium-sized businesses, and incentives for international travelers to visit. The IMF expects growth to be 2.1% in 2023.

The central bank began tightening monetary policy to address elevated inflation with a 25-basis point hike in March 2022 followed by four consecutive 12.5 basis point hikes at each of their subsequent quarterly meetings to bring the central bank's policy rate to 1.875% at the end of March 2023. In June 2022, headline inflation reached 3.6% year-on-year, the highest level since July 2008, but has since moderated to 2.4% as of April 2023, while authorities' preferred measure of core inflation stood at 2.7% year-on-year in April 2023, down from a 14-year high of 3.0% reached in January 2023. The monetary authorities anticipate that both core and headline inflation will moderate further over the course of 2023, though they have also noted uncertainties related to this outlook.

Taiwan's current account surplus decreased to $102 billion (13.3% of GDP) in 2022, from $117 billion (15.1% of GDP) in 2021. The decline was driven by Taiwan's $69 billion goods trade surplus (9% of GDP), down from $88 billion (11.3% of GDP) in 2021. A decline in year-over-year goods exports was driven by a normalization of export levels led by moderation in global semiconductor demand. Import growth moderated substantially as global commodity prices stabilized albeit at an elevated level compared to 2019. Despite the moderation in Taiwan's goods surplus, it remains large relative to GDP.

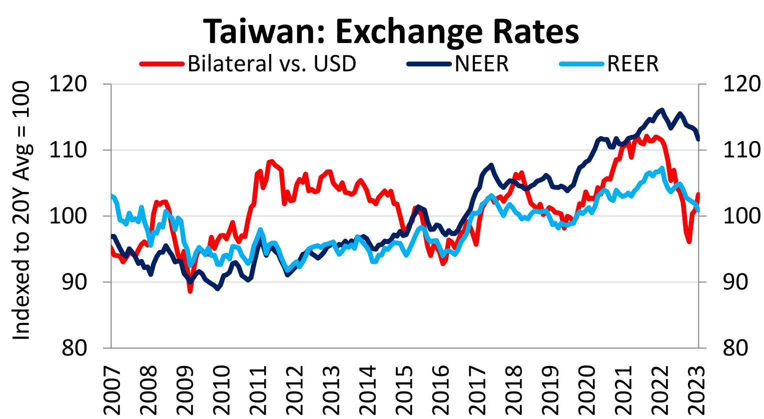


*Sources: Taiwan central bank, Haver*

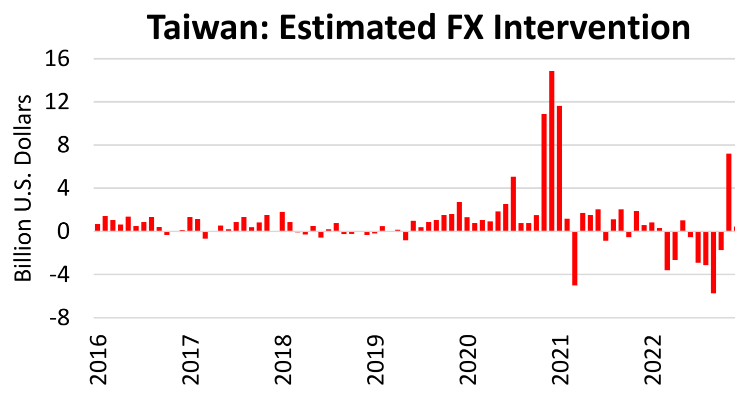
Taiwan's services balance stood at a $13 billion (1.7% of GDP) surplus over the Report period, continuing a decade-long strengthening trend that began after a record services deficit of $6.5 billion in 2012. Nevertheless, Taiwan's services surplus over the last two years is the result of pandemic distortions, namely rising freight transport service exports and the decline in overseas tourism due to Taiwan's strict travel restrictions, both of which began to normalize in 2022. Taiwan's services surplus is likely to moderate further as the shipping and travel constraints continue to ease in 2023.

Taiwan recorded a $50 billion goods and services trade surplus with the United States in 2022, up from $40 billion a year prior. The trade surplus was primarily composed of goods trade and was driven by semiconductors and electronic goods exports. Taiwan's bilateral services trade with the United States was a small $3 billion surplus in 2022, from a $0.2 billion deficit in 2021.

The New Taiwan Dollar (TWD) weakened throughout 2022, depreciating 9.7% against the dollar and 4.6% on a real effective basis. Russia's war against Ukraine drove a sharp depreciation of the TWD in February 2022. Since then, lingering geopolitical uncertainty, rising energy prices, and persistent, large portfolio equity outflows caused in part by



*Sources: FRB, Bank for International Settlements* the tighter global financial conditions have driven the TWD weaker against the dollar. From August 2022, a broad-based slowdown in both Taiwan's tech and non-tech exports further contributed to TWD depreciation pressures.



Sources: Taiwan central bank, U.S. Treasury estimates

The stated policy of the central bank is to maintain a "managed float" exchange rate, in principle determined by market forces but with flexibility to maintain an orderly foreign exchange market. The central bank publicly disclosed $13 billion (1.7% of GDP) in net foreign exchange sales in 2022, with $8.3 billion in sales in the first half of 2022 and $4.8 billion in sales occurring in the second half of 2022. The intervention aimed to offset the downward pressure on the TWD, slowing the depreciation that was taking place. Treasury estimates that the majority of these sales occurred in March and April 2022 following the start of Russia's war against Ukraine, with net foreign exchange sales being partially offset by purchases in November and December, potentially meant to relieve appreciation pressures alongside U.S. dollar weakening. Taiwan publishes its data on foreign exchange intervention on a semi-annual basis, with a three-month lag.

Taiwanese authorities should continue to deploy a careful mix of policies that support domestic demand, raise the labor share of income, and better insulate the economy from external shocks. These steps should help moderate Taiwan's outsized current account surplus. Fiscal support for vulnerable workers, including short-term and young workers, should not be withdrawn too quickly and, where appropriate, some of these programs could be modified to target workers particularly affected by the technical recession that began at the end of 2022. The authorities should explore regulatory and fiscal mechanisms to encourage green growth and meet Taiwan's 2050 net-zero carbon emissions target, including by setting a 2030 intermediate emission target, which would improve Taiwan's resilience to future external energy shocks. Foreign exchange intervention should be limited and allow currency movements in line with economic fundamentals.

### *In-Depth Analysis*

*Switzerland*

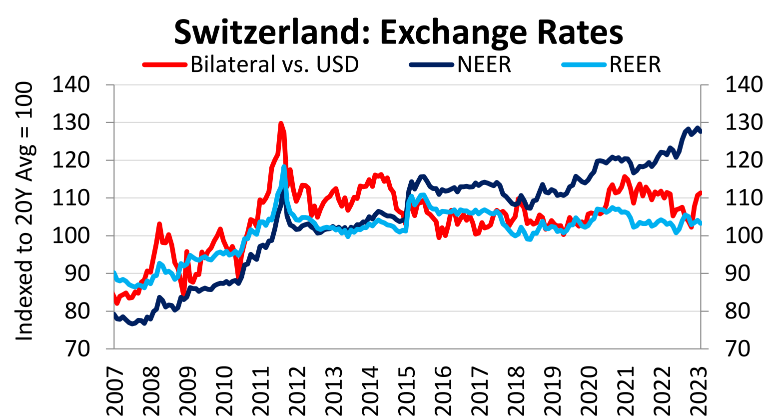
In early 2021, Treasury commenced enhanced bilateral engagement with Switzerland in accordance with the 2015 Act[18] and has been discussing with the Swiss authorities the

[18] *Report to Congress: Macroeconomic and Foreign Exchange Policies of Major Trading Partners of the United States*, U.S. Department of the Treasury, Office of International Affairs, pp. 48-55 (Dec. 2020), available at https://home.treasury.gov/system/files/206/December-2020-FX-Report-FINAL.pdf, and

policy options to address the underlying causes of Switzerland's external imbalances. Treasury expects these productive discussions to foster a deeper understanding of the policy issues related to Switzerland's external imbalances. Treasury and the Swiss authorities are continuing a separate but related Standing Macroeconomic and Financial Dialogue to discuss macroeconomic issues.

Treasury conducted enhanced analysis of Switzerland in its December 2020 and April 2021 Reports, in-depth analysis in its December 2021 Report, and enhanced analysis in its June 2022 and December 2022 Reports. Though Switzerland no longer meets all three criteria for enhanced analysis, Treasury will continue to conduct an in-depth analysis of Switzerland until it does not meet all three criteria under the 2015 Act for at least two consecutive Reports. An in-depth analysis of recent economic developments is provided below.

Spillovers from Russia's war against Ukraine, primarily higher commodity prices, weighed on economic activity in 2022. The Swiss economy grew by 2.1% in 2022, below the IMF's pre-war forecast of 3.0%. Resilient private consumption was the main driver for GDP growth in 2022. Net exports – driven by a notable increase in merchanting exports – also supported growth but had a smaller contribution than in 2021 because of higher energy imports while a decrease in gross capital formation was a minor drag to economic output. Government assistance helped limit unemployment and bolster consumer spending in 2020 and 2021 but was less important in 2022. Unemployment stood at 1.9% at the end of 2022, the lowest it has been since 2001. The IMF expects that growth in 2023 will decrease to 0.8% on the back of weaker global growth, weaker domestic demand, and tighter monetary policy in Switzerland and globally.



*Sources: FRB, Bank for International Settlements*

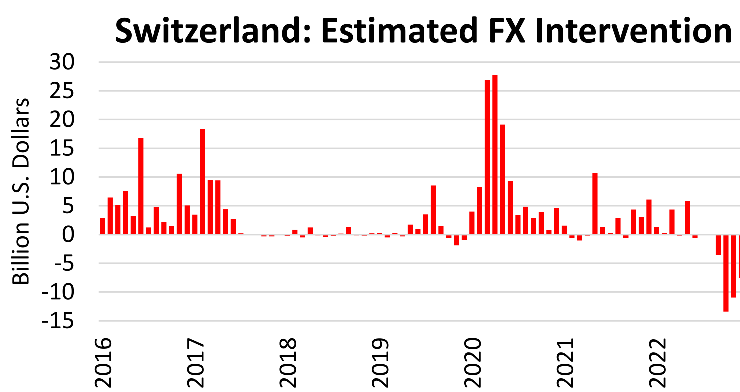
In 2022, the Swiss franc depreciated by 1.0% against the dollar but appreciated by 5.3% relative to the currencies of its trading partners on a nominal effective basis. On a real effective basis, the Swiss franc depreciated by 0.1% in 2022 as lower inflation in Switzerland compared to its trading partners offset the nominal appreciation. Developments in the Swiss nominal exchange rate were driven in 2022 by Switzerland's significant inflation differential with the rest of the world,

---

*Report to Congress: Macroeconomic and Foreign Exchange Policies of Major Trading Partners of the United States*, U.S. Department of the Treasury, Office of International Affairs, pp. 50-53 (Apr. 2021), available at https://home.treasury.gov/system/files/206/April_2021_FX_Report_FINAL.pdf.
*Report to Congress: Macroeconomic and Foreign Exchange Policies of Major Trading Partners of the United States*, U.S. Department of the Treasury, Office of International Affairs, pp. 42-45 (Dec. 2021), available at https://home.treasury.gov/system/files/206/December-2021-FXR-FINAL.pdf

the expected path of monetary policy tightening, and the broad-based strength of the US dollar. Between end-2022 and March 2023, the Swiss franc has appreciated against the dollar by 1.2% but has remained roughly unchanged relative to the currencies of its trading partners on a nominal and real effective basis.

Switzerland is a small, open economy with significant exposure to external factors, and exchange rate movements can often have a major impact on inflation. The Swiss franc has also long been a safe haven currency that investors acquire during periods when global risk appetite recedes, or financial volatility accelerates, which can pose challenges for Swiss macroeconomic policymakers. The IMF classifies the Swiss franc as a *de facto* floating currency, and the Swiss National Bank (SNB) sets monetary policy with the aim of keeping inflation stable within its price stability range of 0% to 2%. In times of heightened regional and global risk, the large safe haven inflows can put considerable appreciation pressure on the franc, and sustained appreciation can weigh on domestic inflation.

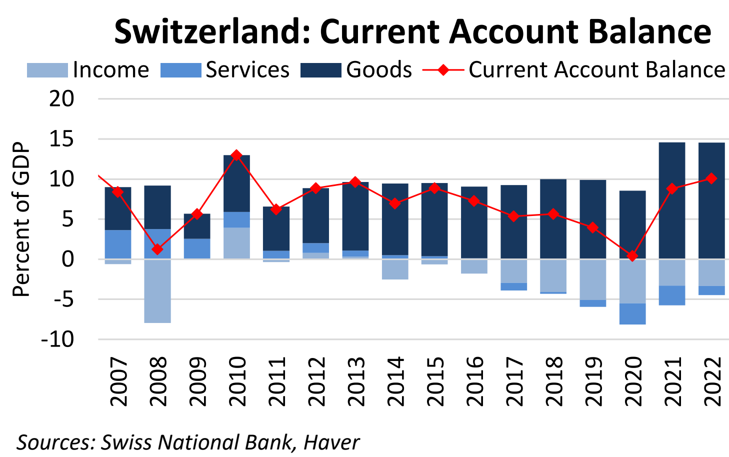


*Sources: Swiss National Bank, U.S. Treasury estimates*

Over the last 15 years, the franc has been subject to notable pressures from large swings in global risk appetite, particularly emanating from the global financial crisis, the euro area crisis, and the COVID-19 pandemic. The SNB has employed a range of tools to try to offset appreciation pressure on the franc and limit negative impacts on inflation and domestic growth. From December of 2014 until September 2022, the SNB maintained negative interest rates to limit franc appreciation and combat deflationary risks. As the interest rate was at the effective lower bound and with limited space for quantitative easing due to the scarcity of risk-free assets caused by the Swiss government's low debt levels, net purchases of foreign exchange became the main tool used by the SNB to meet its inflation objectives.

The objective of the SNB's foreign exchange interventions changed in 2022 as inflation surpassed the upper bound of the SNB's 0% to 2% price stability range. Starting in October 2022, the SNB engaged in substantial net sales of foreign exchange as a means of strengthening the franc to complement its monetary policy rate increases and help control inflationary pressures. Based on the SNB's published data on intervention, Switzerland sold $22.8 billion in foreign exchange over the course of 2022, a significant change from $23.0 billion in net purchases over the course of 2021. By the end of 2022, Switzerland's foreign currency reserves stood at $0.8 trillion, down from $1.03 trillion at end-2021. This decline was caused in part by the net sale of reserves but mainly due to mark-to-market losses to its reserve assets in 2022. As of end December 2022, reserves covered 72% of short-term debt and 105% of GDP.

In its most recent monetary policy meeting on March 23, 2023, the SNB raised its monetary policy rate by 0.50 percentage points to 1.5%, citing ongoing inflationary pressures. Since its first hike on June 16, 2022, the SNB has increased rates in four consecutive meetings after keeping its policy rate unchanged at -0.75% since January 2015. In its press release after its monetary policy meeting on March 2023 the SNB shared insights on its FX interventions by noting that: "To provide appropriate monetary conditions, the SNB also remains willing to be active in the foreign exchange market as necessary. For some quarters now, the focus has been on selling foreign currency." Inflation was 2.6% year-on-year in April 2023, down from a peak of 3.4% in August 2022. Although inflation remains above the SNB's 2% target, it has remained below that of most other advanced economies. In their latest communication, the SNB projects inflation to reach 2.0% in Q1-2024 but remains concerned about the continued strength of core inflation, which has remained at 2% on average over the past year.




The Swiss authorities have a history of restrained macroeconomic management, particularly a fiscal policy approach that prioritized debt reduction for several decades beginning in the 1990s. Switzerland's fully funded pension system and demographic profile have also resulted in significant aggregate savings. The country's highly competitive corporate tax system has made Switzerland a destination for multinational enterprises, contributing to Switzerland's outsized role in some high value-added global industries (e.g., pharmaceuticals and merchanting).[19] These factors have contributed to persistent, and often extremely large, current account surpluses during recent decades. In 2021 the current account surplus rebounded to 8.8% of GDP, following an unusually small surplus of 0.3% of GDP during 2020.[20] In 2022, the current account surplus rose to 10.1% of GDP. The widening of the current account surplus is largely explained by a higher-than-average goods trade surplus of 14.6% of GDP in 2022, as high volatility in commodity markets contributed to an elevated merchanting surplus. Despite the large recent current account surpluses, Switzerland's net international investment position declined to 96% as share of GDP in 2022 from 108% in 2021, making it a smaller net lender to the rest of the world when compared to the size of its economy than in 2021.[21]

[19] The authorities have agreed to implement the OECD-led global corporate tax reforms, which will imply bringing rates up to 15% for all cantons when it becomes effective. Anecdotal evidence from the Swiss authorities suggests that pharmaceuticals and merchanting may be insensitive to exchange rate changes, and increased trade in these sectors can potentially lead to increased current account balances even when exchange rates appreciate.
[20] At the time of the December 2021 Report, the 2020 current account surplus totaled just 1.2% of GDP.
[21] This decline reflects valuation effects.

Switzerland's bilateral goods and services trade surplus with the United States declined to $2.0 billion in the four quarters ending in December 2022 compared to $20.5 billion in the four quarters ending in December 2021 as goods exports to the U.S. decreased and services imports from the U.S. increased. This decline results in a goods and services trade surplus with the United States below the $15 billion threshold established to assess whether a trading partner has a significant bilateral trade surplus with the United States. In 2022 Switzerland's goods trade surplus with the United States declined to $22.6 billion, versus $39.5 billion in 2021. Switzerland maintains a large goods trade surplus with the United States, but this traditionally has been mirrored largely by a services trade deficit. Switzerland's bilateral services trade deficit with the United States stood at $20.6 billion in 2022, compared to $19.0 billion in 2021. Until 2020, the United States' trade deficit with Switzerland in recent years had been closer to balance when including services data. The increase in the trade deficit in 2020 had been partly attributable to net gold exports of more than $10 billion to the United States, while services imports from the United States had not increased by the same magnitude. Gold exports began a downward path in 2021 and accelerated in 2022, leading to the trade balance in gold shifting to a deficit of $13 billion in 2022, driving some of the improvement in the U.S.-Switzerland goods trade balance.

Switzerland ran a fiscal surplus of 1% of GDP in 2022, which surpassed the government's expectations due to strong tax collection from cantons and municipalities, higher social security contributions as a result of the strong labor market, and the phasing-out of emergency expenditures. The overall fiscal balance is expected to moderate in 2023 as a result of zero SNB profit transfers and higher expenditures[22] on refugees, energy, and national security. Switzerland has significant fiscal space relative to many other advanced economies because of its low public debt burden, close to 40% of GDP, affordable interest payments, and favorable debt structure.

Increased public investment could lower government net saving, rebalance the policy mix, and help Switzerland meet its long-term challenges associated with an aging population, climate change, energy security, and national defense. The extension in September 2022 of the current CO2 law until 2024 and measures for incentivizing reductions in greenhouse gas emissions for the 2025-2030 period offer an opportunity to increase in fiscal spending to meet climate targets in the near term.

Switzerland's tight fiscal policy is a result, in part, of its federal "debt brake" rule that calls for a structural fiscal balance on an *ex-ante* basis, and in the case of *ex post* spending overruns, requires the government to offset with structural surpluses in the following years. The federal debt brake rule is reinforced further by separate fiscal rules implemented by Swiss cantons, which vary substantially. The federal debt brake rule's design and implementation tend to skew towards tighter fiscal policy than warranted, due

[22] Contingent liabilities stemming from government guarantees to UBS amount to CHF109 billion. Government guarantees provided to facilitate the Credit Suisse-UBS merger will only affect the fiscal position if called and may materialize over several years as asset losses are realized. Therefore, the fiscal impact, if any, is expected to be contained and distributed over time.

to consistently conservative forecasting of structural revenue and under-execution of expenditures.  Switzerland ends almost each year with a larger budget surplus than planned, and Switzerland has seen significant debt reduction since implementing the debt brake rule.  In addition, the rule is applied asymmetrically, as it mandates an offset requirement in case of *ex post* overspending, but not for *ex post* underspending.

Due to these factors, Switzerland's fiscal policy has consistently overperformed the rule's objective of debt stabilization, thereby contributing less to economic growth, complicating efforts to maintain positive inflation, and contributing to external surpluses.  At end-2022, amortization needs stemming from the COVID-19 crisis and other extraordinary expenditures were CHF22.7 billion (3% of GDP), including 2022 outlays for refugees from Ukraine.  The Swiss parliament approved an extended timeframe for the amortization of outstanding COVID-related debt until 2035 with the option of lengthening the timeframe to 2039 under extraordinary circumstances.  The fiscal savings will be achieved through spending underruns of CHF1 billion per year and a measure that recognizes profits shared by the SNB as revenue.  This would avoid any expenditure cuts or measures to increase tax revenue.  The Swiss have also undertaken measures to further limit spending underruns in the future.

In addition to consistent government saving, other structural factors play a role in Switzerland's historically large current account surpluses, including high per capita income; a large share of prime-aged savers and an aging population; a high household savings rate, which is almost double the advanced economy average per OECD data; relatively limited domestic investment opportunities; measurement issues; and a large positive net international investment position, for which returns further raise the income balance.

## Section 2: Intensified Evaluation of Major Trading Partners

The 1988 Act requires the Secretary of the Treasury to provide semiannual reports to Congress on international economic and exchange rate policy. Under Section 3004 of the 1988 Act, the Secretary must:

> *"consider whether countries manipulate the rate of exchange between their currency and the United States dollar for purposes of preventing effective balance of payments adjustment or gaining unfair competitive advantage in international trade."*

This determination may encompass analysis of a broad range of factors, including not only trade and current account imbalances and foreign exchange intervention (the criteria evaluated under the 2015 Act), but also currency developments, the design of exchange rate regimes and exchange rate practices, foreign exchange reserve coverage, capital controls, monetary policy, and trade policy actions, as well as foreign exchange activities by quasi-official entities that may be undertaken on behalf of official entities, among other factors.

The 2015 Act requires the Secretary of the Treasury to provide semiannual reports on the macroeconomic and foreign exchange rate policies of the major trading partners of the United States. Section 701 of the 2015 Act requires that Treasury undertake an enhanced analysis of macroeconomic and exchange rate policies for each major trading partner "that has— (1) a significant bilateral trade surplus with the United States; (2) a material current account surplus; and (3) engaged in persistent one-sided intervention in the foreign exchange market." Additionally, the 2015 Act requires the President, through the Secretary of the Treasury, to "commence enhanced bilateral engagement with each country for which an enhanced analysis" is included in the report. The Act also provides for the possible imposition of penalties if, on or after one year of the commencement of enhanced bilateral engagement, the Secretary determines that a country "has failed to adopt appropriate policies to correct the undervaluation and surpluses" that triggered the enhanced analysis and enhanced bilateral engagement.

### *Key Criteria*

Pursuant to Section 701 of the 2015 Act, this section of the Report seeks to identify any major trading partner of the United States that has: (1) a significant bilateral trade surplus with the United States, (2) a material current account surplus, and (3) engaged in persistent one-sided intervention in the foreign exchange market. Required data for the period of review (the four quarters through December 2022, unless otherwise noted) are provided in Table 1 (p. 20) and Table 2 (p. 45).

As noted earlier, Treasury reviews developments in the 20 largest trading partners of the United States, along with other trading partners that remain on the Monitoring List over the period of review. These economies accounted for about 78% of U.S. trade in goods and services over the four quarters through December 2022. This includes all U.S. trading partners whose bilateral goods and services surplus with the United States in the four quarters through December 2022 exceeded $15 billion.

The results of Treasury's latest assessment pursuant to Section 701 of the 2015 Act are discussed below.

**Criterion (1) – Significant bilateral trade surplus with the United States:**

Column 3 in Table 2 provides the bilateral goods and services trade balances for the United States' 20 largest trading partners for the four quarters through December 2022.[23] China has the largest trade surplus with the United States by far, after which the sizes of the bilateral trade surpluses decline notably. Treasury assesses that economies with a bilateral goods and services surplus of at least $15 billion have a "significant" surplus. Highlighted in red in column 3 are the 13 major trading partners that have a bilateral surplus that met this threshold for the four quarters through December 2022. Table 3 provides additional contextual information on total and bilateral trade, including individual goods and services trade balances, with these trading partners. Because the Report now incorporates services trade, Table 3, which provides disaggregated goods and services trade data, will be essential for comparison with past Reports that focused on goods trade.

**Criterion (2) – Material current account surplus:**

Treasury assesses current account surpluses of at least 3% of GDP or a surplus for which Treasury estimates there is a substantial current account "gap" to be "material" for the purposes of enhanced analysis. Highlighted in red in column 2a of Table 2 are the seven economies that met these thresholds over the four quarters through December 2022. No economy that did not already meet the 3% current account surplus threshold had a substantial current account gap.[24] Column 2b shows the change in the current account surplus as a share of GDP over the last three years, although this is not a criterion for enhanced analysis.

**Criterion (3) – Persistent, one-sided intervention:**

Treasury assesses net purchases of foreign currency, conducted repeatedly, in at least 8 out of 12 months, totaling at least 2% of an economy's GDP, to be persistent, one-sided intervention.[25] Columns 1a and 1c in Table 2 provide Treasury's assessment of this

---

[23] Although this Report does not treat the euro area itself as a major trading partner for the purposes of the 2015 Act—this Report assesses euro area countries individually—data for the euro area are presented in Table 2 and elsewhere in this Report both for comparative and contextual purposes, and because policies of the ECB, which holds responsibility for monetary policy for the euro area, will be assessed as the monetary authority of individual euro area countries.
[24] See Box 2 in the December 2021 Report on Macroeconomic and Exchange Rate Policies of the United States' Major Trading Partners for a summary of how Treasury estimates current account gaps.
[25] Notably, this quantitative threshold is sufficient to meet the criterion. Other patterns of intervention, with lesser amounts or less frequent interventions, might also meet the criterion depending on the circumstances of the intervention.

criterion.[26] In economies where foreign exchange interventions are not published, Treasury uses estimates of net purchases of foreign currency as a proxy for intervention.

[26] Treasury uses publicly available data for intervention on foreign asset purchases by authorities, or estimated intervention based on valuation-adjusted foreign exchange reserves. This methodology requires assumptions about both the currency and asset composition of reserves in order to isolate returns on assets held in reserves and currency valuation moves from actual purchases and sales, including estimations of transactions in foreign exchange derivatives markets. Treasury also uses alternative data series when they provide a more accurate picture of foreign exchange balances, such as Taiwan's reporting of net foreign assets at its central bank. To the extent the assumptions made do not reflect the true composition of reserves, estimates may overstate or understate intervention. Treasury strongly encourages those economies in this Report that do not currently release data on foreign exchange intervention to do so.

**Table 2. Major Foreign Trading Partners Evaluation Criteria**

| | FX Intervention | | | Current Account | | | Bilateral Trade |
|---|---|---|---|---|---|---|---|
| | Net Purchases (% of GDP, Trailing 4Q) (1a) | Net Purchases (USD Bil., Trailing 4Q) (1b) | Net Purchases 8 of 12 Months† (1c) | Balance (% of GDP, Trailing 4Q) (2a) | 3 Year Change in Balance (% of GDP) (2b) | Balance (USD Bil., Trailing 4Q) (2c) | Goods and Services Surplus with United States (USD Bil., Trailing 4Q) (3) |
| Canada | 0.0 | 0 | No | -0.4 | 1.6 | -8 | **53** |
| Mexico | 0.0 | 0 | No | -0.9 | -0.5 | -13 | **130** |
| China | 0.2 — 0.5 * | 27 — 88 | No | 2.2 | 1.5 | 402 | **367** |
| Japan | -1.5 | -62 | No | 2.0 | -1.4 | 85 | **68** |
| **Germany** | 0.0 | 0 | No | **4.3** | -4.1 | 176 | **76** |
| United Kingdom | 0.0 | 0 | No | -3.9 | -1.1 | -121 | -23 |
| Korea | -2.7 | -46 | No | 1.8 | -1.8 | 30 | **37** |
| Ireland | 0.0 | 0 | No | **9.0** | 28.7 | 48 | 5 |
| India | -2.5 | -85 | No | -2.4 | -1.3 | -80 | **46** |
| Switzerland | -2.8 | -23 | No | **10.1** | 6.1 | 81 | 2 |
| **Taiwan** | -1.7 | -13 | No | **13.3** | 2.5 | 102 | **51** |
| France | 0.0 | 0 | No | -2.1 | -2.7 | -58 | **15** |
| Netherlands | 0.0 | 0 | No | **4.4** | -2.5 | 44 | -52 |
| Vietnam | -6.6 ** | -27 | No | -0.2 | -3.9 | -1 | **115** |
| **Singapore** | **15.6** | 73 | **Yes** | **19.3** | 3.2 | 90 | -36 |
| Brazil | -1.6 | -31 | No | -3.0 | 0.7 | -57 | -31 |
| Italy | 0.0 | 0 | No | -1.2 | -4.6 | -24 | **43** |
| **Malaysia** | -6.2 ** | -25 | No | **3.0** | -0.5 | 12 | **37** |
| Thailand | -2.9 ** | -14 | No | -3.5 | -10.5 | -17 | **42** |
| Australia | -0.2 | -3 | No | 1.2 | 0.8 | 20 | -27 |
| Memo: Euro Area | 0.0 | 0 | No | -1.1 | -3.4 | -152 | **105** |

*Note:* Current account balance measured using BOP data, recorded in U.S. dollars, from national authorities.

*Sources:* Haver Analytics; National Authorities; U.S. Census Bureau; Bureau of Economic Analysis; and U.S. Department of the Treasury Staff Estimates.

† In assessing the persistence of intervention, Treasury will consider an economy that is judged to have purchased foreign exchange on net for 8 of the 12 months to have met the threshold.

* China does not publish FX intervention, forcing Treasury staff to estimate intervention activity from monthly changes in the PBOC's foreign exchange assets and monthly data on net foreign exchange settlements, adjusted for changes in outstanding forwards. Based on the PBOC's foreign exchange assets data, intervention was not persistent. Based on net foreign exchange settlements data, intervention was persistent.

** Authorities do not publish FX intervention. Authorities have conveyed bilaterally to Treasury the size of net FX purchases during the four quarters ending December 2022.

**Table 3. Major Foreign Trading Partners - Expanded Trade Data**

| | USD Bil., Trailing 4Q | | | | | | % of GDP, Trailing 4Q | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total Trade | | | Trade Surplus with United States | | | Total Trade | | | Trade Surplus with United States | | |
| | Goods and Services (1a) | Goods (1b) | Services (1c) | Goods and Services (2a) | Goods (2b) | Services (2c) | Goods and Services (3a) | Goods (3b) | Services (3c) | Goods and Services (4a) | Goods (4b) | Services (4c) |
| Canada | 904 | 794 | 110 | 53 | 82 | -29 | 42.2 | 37.1 | 5.1 | 2.5 | 3.8 | -1.4 |
| Mexico | 854 | 779 | 75 | 130 | 131 | 0 | 60.4 | 55.1 | 5.3 | 9.2 | 9.2 | 0.0 |
| China | 759 | 691 | 69 | 367 | 383 | -16 | 4.2 | 3.8 | 0.4 | 2.0 | 2.1 | -0.1 |
| Japan | 306 | 229 | 77 | 68 | 68 | 0 | 7.2 | 5.4 | 1.8 | 1.6 | 1.6 | 0.0 |
| Germany | 302 | 220 | 82 | 76 | 74 | 2 | 7.4 | 5.4 | 2.0 | 1.9 | 1.8 | 0.1 |
| United Kingdom | 293 | 141 | 152 | -23 | -13 | -10 | 9.5 | 4.6 | 4.9 | -0.8 | -0.4 | -0.3 |
| Korea | 224 | 187 | 38 | 37 | 44 | -7 | 13.4 | 11.2 | 2.3 | 2.2 | 2.6 | -0.4 |
| Ireland | 203 | 98 | 105 | 5 | 66 | -61 | 38.4 | 18.5 | 19.9 | 0.9 | 12.5 | -11.6 |
| India | 191 | 133 | 58 | 46 | 38 | 7 | 5.7 | 3.9 | 1.7 | 1.3 | 1.1 | 0.2 |
| Switzerland | 181 | 96 | 84 | 2 | 23 | -21 | 22.4 | 11.9 | 10.4 | 0.2 | 2.8 | -2.6 |
| Taiwan | 159 | 136 | 23 | 51 | 48 | 3 | 20.8 | 17.8 | 3.1 | 6.7 | 6.3 | 0.4 |
| France | 151 | 103 | 48 | 15 | 12 | 4 | 5.4 | 3.7 | 1.7 | 0.5 | 0.4 | 0.1 |
| Netherlands | 149 | 107 | 42 | -52 | -38 | -13 | 15.1 | 10.8 | 4.2 | -5.2 | -3.9 | -1.4 |
| Vietnam | 142 | 139 | 3 | 115 | 116 | -2 | 34.8 | 34.0 | 0.8 | 28.0 | 28.4 | -0.4 |
| Singapore | 125 | 78 | 47 | -36 | -15 | -21 | 26.8 | 16.7 | 10.2 | -7.7 | -3.1 | -4.6 |
| Brazil | 121 | 93 | 28 | -31 | -15 | -16 | 6.3 | 4.8 | 1.5 | -1.6 | -0.8 | -0.8 |
| Italy | 117 | 97 | 20 | 43 | 42 | 2 | 5.8 | 4.8 | 1.0 | 2.2 | 2.1 | 0.1 |
| Malaysia | 79 | 73 | 7 | 37 | 37 | 0 | 19.5 | 17.9 | 1.6 | 9.0 | 9.0 | 0.0 |
| Thailand | 79 | 74 | 5 | 42 | 43 | -1 | 15.9 | 15.0 | 0.9 | 8.5 | 8.7 | -0.2 |
| Australia | 77 | 46 | 30 | -27 | -14 | -13 | 4.5 | 2.7 | 1.8 | -1.6 | -0.8 | -0.8 |
| Memo: Euro Area | 1165 | 805 | 359 | 105 | 174 | -69 | 8.3 | 5.7 | 2.5 | 0.7 | 1.2 | -0.5 |

*Source:* U.S. Census Bureau, and Bureau of Economic Analysis.

***Summary of Findings***

Pursuant to the 2015 Act, Treasury finds that no trading partner met all three criteria for enhanced analysis in the current review period of the four quarters through December 2022 based on the most recent available data. Switzerland, which had previously exceeded the thresholds for all three criteria under the 2015 Act, exceeded one of the three criteria over the four quarters through December 2022. **In total, seven economies—China, Korea, Germany, Malaysia, Singapore, Switzerland, and Taiwan—constitute Treasury's Monitoring List.** Japan has been removed from the Monitoring List in this Report, having met only one out of three criteria for two consecutive Reports.

With respect to the economies covered in this Report:

- China has met at least one of the three criteria in every Report since the October 2016 Report. For the four quarters ending December 2022, China meets one of the three criteria (significant bilateral trade surplus) and remains on the Monitoring List due to the size of the bilateral surplus with the United States and its lack of transparency on intervention data.
- Germany has met two of the three criteria in every Report since the April 2016 Report, having a material current account surplus and a significant bilateral trade surplus with the United States.
- Korea had met two of the three criteria in every Report since April 2016, except for the May 2019 Report, having a material current account surplus and a significant bilateral trade surplus with the United States. For the four quarters ending December 2022, Korea met one of the three criteria, having a significant bilateral trade surplus with the United States.
- Malaysia, which had met one criterion under the 2015 Act in the November 2022 Report (significant bilateral trade surplus), exceeded two of the three criteria over the four quarters through December 2022, having a material current account surplus and a significant bilateral trade surplus with the United States. Prior to the November 2022 Report, Malaysia had met two of the three criteria since the May 2019 Report, having a material current account surplus and a significant bilateral trade surplus with the United States.
- Singapore has met two of the three criteria since the May 2019 Report, having a material current account surplus and engaged in persistent, one-sided intervention in the foreign exchange market.
- Switzerland, which had previously exceeded the thresholds for all three criteria under the 2015 Act in the November 2022 Report, exceeded one of the three criteria over the four quarters through December 2022.
- Taiwan met two of the three criteria since the June 2022 Report and continues to meet two of the three criteria in this Report, having a significant bilateral trade surplus with the United States and material current account surplus over the reporting period.

**Treasury will closely monitor and assess the economic trends and foreign exchange policies of each of these economies.**

In this Report, Treasury has concluded that no major trading partner of the United States engaged in conduct of the kind described in Section 3004 of the 1988 Act during the relevant period. This determination has taken account of a broad range of factors, including not only trade and current account imbalances and foreign exchange intervention (the criteria in the 2015 Act), but also currency developments, exchange rate practices, foreign exchange reserve coverage, capital controls, and monetary policy.

As the global economy regains momentum, it is critical that key economies adopt policies that allow for a narrowing of excessive surpluses and deficits. Governments should bolster domestic-led rather than externally supported growth. This would establish a firmer foundation for strong, balanced growth across the global economy.

## Glossary of Key Terms in the Report

**Exchange Rate** – The price at which one currency can be exchanged for another. Also referred to as the bilateral exchange rate.

**Exchange Rate Regime** – The manner or rules under which an economy manages the exchange rate of its currency, particularly the extent to which it intervenes in the foreign exchange market. Exchange rate regimes range from floating to pegged.

**Floating (Flexible) Exchange Rate** – An exchange rate regime under which the foreign exchange rate of a currency is fully determined by the market with intervention from the government or central bank being used sparingly.

**Foreign Exchange Reserves** – Foreign assets held by the central bank that can be used to finance the balance of payments and for intervention in the exchange market. Foreign assets consist of gold, Special Drawing Rights (SDRs), and foreign currency (most of which is held in short-term government securities). The latter are used for intervention in the foreign exchange markets.

**Intervention** – The purchase or sale of an economy's currency in the foreign exchange market by a government entity (typically a central bank) in order to influence its exchange rate. Purchases involve the exchange of an economy's own currency for a foreign currency, increasing its foreign currency reserves. Sales involve the exchange of an economy's foreign currency reserves for its own currency, reducing foreign currency reserves. Interventions may be sterilized or unsterilized.

**Nominal Effective Exchange Rate** (NEER) – A measure of the overall value of an economy's currency relative to a set of other currencies. The effective exchange rate is an index calculated as a weighted average of bilateral exchange rates. The weight given to each economy's currency in the index typically reflects the amount of trade with that economy.

**Pegged (Fixed) Exchange Rate** – An exchange rate regime under which an economy maintains a set rate of exchange between its currency and another currency or a basket of currencies. Often the exchange rate is allowed to move within a narrow predetermined (although not always announced) band. Pegs are maintained through a variety of measures, including capital controls and intervention.

**Real Effective Exchange Rate** (REER) – A weighted average of bilateral exchange rates, expressed in price-adjusted terms. Unlike the nominal effective exchange rate, it is further adjusted for the effects of inflation in the countries concerned.

**Trade Weighted Exchange Rate** – See Nominal Effective Exchange Rate.