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

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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

Following a steep contraction of the global economy in 2020 due to the impact of COVID-19, recovery began to take hold in 2021; the IMF projects global growth of 5.9% in 2021 after a 3.1% contraction in 2020. The recovery has been most pronounced in economies that undertook strong macroeconomic policy support and where a larger share of the population has been vaccinated – though the COVID-19 Delta variant has complicated the full resumption in economic activity for most. Where policy space and vaccine distribution has been more limited, recoveries are nascent or weak, leading to a divergence in global growth.

The global recovery is subject to downside risks from variants of COVID-19. Given this additional uncertainty and the potential for start-stop recoveries, countries should employ available policy space to minimize scarring. Similarly, actions to support the global rollout and distribution of vaccines are vital to minimize the divergence in growth that has started to take place. An uneven global recovery is not a resilient recovery. It intensifies inequality, exacerbates global imbalances, and heightens risks to the global economy.

The unprecedented nature of the COVID-19 crisis and the difficulty in separating temporary versus structural changes continue to make analysis of current accounts and exchange rates an even more difficult task than usual. Additionally, balance of payments measurement challenges and large data swings and revisions among economies with a high concentration of foreign multinational corporations complicate these assessments. Nevertheless, some developments are concerning. The IMF July 2021 External Sector Report indicates that, at the global level, current account surpluses widened to 1.8% of world GDP in 2020, up 0.2 percentage points from 2019. Among major U.S. trading partners, the very large surpluses of Germany, Korea, Ireland, Taiwan, Netherlands, and Singapore have each remained significant as a share of GDP into 2021. Over the four quarters through June 2021, Japan's current account surplus was slightly smaller than in 2019 as a share of GDP, but in dollar terms was comparatively high at $196 billion. China's surplus was even higher in dollar terms at $339 billion over the same period, its highest level since 2015. Meanwhile, a strong U.S. policy response to the crisis, and the resulting pick-up in demand, caused the U.S. current account deficit to rise in the first half of 2021 to 3.3% of GDP. In general, and especially at a time of recovering global growth, adjustments to reduce excessive imbalances should occur through a symmetric rebalancing process that sustains global growth momentum rather than through asymmetric compression in deficit economies — the channel which too often has dominated in the past.

Treasury is also concerned by certain economies raising the scale and persistence of foreign exchange intervention to resist appreciation of their currencies in line with economic fundamentals. 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-20 members have agreed that strong fundamentals and sound policies are essential to the stability of the international monetary system.[2] All IMF members have committed to avoid manipulating their exchange rates to gain an unfair competitive advantage over other members.

Nevertheless, a number of economies have conducted foreign exchange market intervention in a persistent, one-sided manner. Over the four quarters through June 2021, five major U.S. trading partners — Singapore, Taiwan, Vietnam, India, and Switzerland — intervened in the foreign exchange market in a sustained, asymmetric manner with the effect of weakening their currencies.

Treasury Analysis Under the 1988 and 2015 Legislation

This Report assesses developments in international economic and exchange rate policies over the four quarters through June 2021. The analysis in this Report is guided by Section 3001-3006 of the Omnibus Trade and Competitiveness Act of 1988 (1988 Act) and Sections 701 and 702 of the Trade Facilitation and Trade Enforcement Act of 2015 (2015 Act) as discussed in Section 2.

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 revised its coverage of major trading partners and has adjusted the thresholds for determining whether the three criteria are met. These changes are summarized below.

[2] For a list of further commitments, see the April 2021 FX Report. Available at: https://home.treasury.gov/system/files/206/April_2021_FX_Report_FINAL.pdf.

Treasury Thresholds Under the 2015 Act

Criteria	Previous		Current	
	Benchmark	Threshold	Benchmark	Threshold
Major Trading Partner Coverage	Total Bilateral Goods Trade (Imports plus Exports)	$40 billion[1]	**Total Bilateral Goods and Services Trade (Imports plus Exports)**	**Top 20**
(1) Significant Bilateral Trade Surplus with the United States	Goods Surplus with the United States	$20 billion	**Goods and Services Surplus with the United States**	**$15 billion**
(2) Material Current Account Surplus	Current Account Balance	2% of GDP	Current Account Balance **or** **Estimated Current Account Gap (Latest Available)**	**3% of GDP** **1% of GDP (if in surplus)**
(3) Persistent, One-Sided Intervention in Foreign Exchange Markets	Net FX Purchases Persistence of Net FX Purchases (months)	2% of GDP 6 of 12 months	Net FX Purchases Persistence of Net FX Purchases (months)	2% of GDP **8 of 12 months**

[1] As of June 2021, 20 trading partners exceeded this threshold.

Beginning with this Report, Treasury will incorporate services trade data to provide a more comprehensive assessment of U.S. trading patterns, as services have played an increasing role in international trade over time. In previous Reports, Treasury had focused on goods trade due to data limitations. However, more recently, official U.S. data on bilateral trade in services have become available across a larger set of major trading partners on a quarterly basis. The Report will now assess (i) the largest 20 trading partners of the United States, which currently comprise more than 80% of U.S. foreign trade in goods and services, and (ii) any other trading partner that has met at least two criteria under the 2015 Act in the immediately preceding Report.

With respect to the three criteria under the 2015 Act, the thresholds Treasury will use are as follows:

(1) A significant bilateral trade surplus with the United States is a goods and services trade surplus that is at least $15 billion. By including services data, this threshold

captures greater coverage of U.S. trade flows than previously, representing 70% of the value of all bilateral trade surpluses with the United States in 2016-20.

(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 current account "gap" of at least 1 percentage point of GDP using Treasury's Global Exchange Rate Assessment Framework (GERAF). Current account gaps are defined in this Report as the deviation of a given current account balance — stripping out cyclical factors — from an estimated optimal current account balance given the economy's economic fundamentals and the appropriate mix of macroeconomic policies. Incorporating current account gap assessments will help Treasury to better differentiate between current account surpluses that may be excessive and current account surpluses that may be warranted given economic characteristics and appropriate macroeconomic policies. For a more detailed discussion of Treasury's application of GERAF in the Report, see Section 2.

(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.[3] This revision seeks to sharpen Treasury's focus on asymmetric patterns of intervention and to avoid capturing intervention aimed at attenuating the effects of short-term external shocks while still capturing policies aimed at competitiveness.

Treasury's goal in adjusting the coverage of the Report and these thresholds is to identify more rigorously where potentially excessive external imbalances or unfair currency practices may be emerging.

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

Two economies again exceeded the thresholds for all three criteria under the 2015 Act over the four quarters through June 2021: Vietnam and Taiwan. Switzerland, which had previously exceeded the thresholds for all three criteria under the 2015 Act, exceeded two of the three criteria over the four quarters through June 2021. Treasury conducted enhanced analysis of Vietnam and Switzerland in the December 2020 Report and of all

[3] 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.

three economies in the April 2021 Report. In this Report, Treasury conducted enhanced analysis of Vietnam and Taiwan.

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 continue its enhanced bilateral engagement with Switzerland, which commenced in early 2021, to discuss the Swiss authorities' policy options to address the underlying causes of its external imbalances.

In early 2021, Treasury commenced enhanced bilateral engagement with Vietnam in accordance with the 2015 Act. As a result of discussions through the enhanced engagement process, Treasury and the State Bank of Vietnam (SBV) reached agreement in July 2021 to address Treasury's concerns about Vietnam's currency practices.[4] Treasury continues to engage closely with the SBV to monitor Vietnam's progress in addressing Treasury's concerns and is thus far satisfied with progress made by Vietnam.

Treasury commenced enhanced bilateral engagement with Taiwan in accordance with the 2015 Act in May 2021 to develop a plan with specific actions to address the underlying causes of Taiwan's currency undervaluation.

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 the April 2021 Report, Treasury determined that there was insufficient evidence to make a finding that any economy covered in the Report manipulates its exchange rate for either of the purposes referenced in the 1988 Act. Through its continued enhanced engagements with Vietnam, Switzerland, and Taiwan, as well as a thorough assessment of developments in the global economy as a result of the COVID-19 pandemic, Treasury has determined that none of these economies intervened in currency markets in the four quarters through June 2021 to prevent effective balance of payments adjustment or gain an unfair competitive advantage in trade. Treasury has also concluded that no other 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.

Treasury Assessments of Other Major Trading Partners

Treasury has found in this Report that no major trading partner other than Vietnam and Taiwan met all three criteria under the 2015 Act during the four quarters ending June 2021.

[4] See "Joint Statement from the U.S. Department of the Treasury and the State Bank of Vietnam." Available at: https://home.treasury.gov/news/press-releases/jy0280.

Pursuant to the 2015 Act, 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, Japan, Korea, Germany, Ireland, Italy, India, Malaysia, Singapore, Thailand, Mexico, and Switzerland. All except Switzerland were on the Monitoring List in the April 2021 Report.**

China's macroeconomic policies implemented in response to the adverse economic effects of COVID-19 targeted the early resumption of manufacturing rather than supporting household consumption. Absent demand-side stimulus the prospect of Chinese household consumption supporting sustainable growth is low. China's failure to publish foreign exchange intervention and broader lack of transparency around key features of its exchange rate mechanism make it an outlier among major economies, and the activities of state-owned banks in particular warrant Treasury's close monitoring.

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. 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 June 2021 and, where data are available, through end-October 2021. This Report also covers developments in other trading partners that remain on the Monitoring List over this period. Total goods and services trade of the economies covered with the United States amounted to more than $4.3 trillion in the four quarters through June 2021, more than 80% of all U.S. trade during that period.

U.S. Economic Trends

Over the past year and a half, the U.S. economy has shown remarkable resilience, despite the effects of the global pandemic. As of the second quarter of 2021, most major components of GDP have returned to pre-pandemic levels. Successful early vaccination efforts and over $5 trillion in combined federal financial assistance have supported households, small businesses, health care providers, and state and local governments—enabling one of the strongest recoveries among advanced economies. Moreover, the economic outlook for the remainder of 2021 as well as 2022 remains favorable, and the U.S. economy is expected to recover fully—that is, rise to the level of activity that would have happened without the pandemic recession—by mid-2022, though the potential impact of coronavirus variants and persisting supply-chain disruptions add uncertainty to the outlook.

Economic Performance in the Second Half of 2020

The U.S. economy began to recover from the severe disruptions created by the COVID-19 pandemic and the various measures imposed in 2020 to limit the spread of the virus. As economic activity resumed in May 2020 and the federal government's stimulus policies took hold, real GDP rebounded by 18.3% over the final two quarters of the year, including a 21.3% jump in real private domestic final purchases (PDFP)—consisting of a 20.9% increase in private consumption, a 46.6% jump in residential investment, and a 15.6% advance in business fixed investment. By the third quarter of 2020, residential investment had surpassed its pre-pandemic level, and by the fourth quarter of 2020, business fixed investment had recouped virtually all of its pre-pandemic strength. By the end of 2020, the level of GDP had reversed three-quarters of its decline during the first half of 2020, and private consumption was within 2.5% of its level at the end of 2019.

The recovery in labor markets was also relatively robust: by December 2020, 55.2% of payroll jobs had been recovered, including 60% of jobs lost in the private sector. Over the same period, the unemployment rate dropped by 8.1 percentage points to 6.7%. By the end of 2020, the headline labor force participation rate (LFPR) had retraced 1.3 percentage points to 61.5% and the prime-age LFPR had recovered by 1.2 percentage points to 81.0%, though both rates were still well below their pre-pandemic highs.

Monthly inflation picked up, on average, in the second half of the year as the economy reopened, energy prices recovered, and federal economic aid programs spurred purchases of household durable goods. Even so, 12-month inflation rates remained below year-earlier readings. Over the year through December 2020, headline CPI inflation was only 1.4%, or 0.9 percentage points below the rate through December 2019. Core inflation was 1.6%, 0.7 percentage points slower than the year-earlier pace.

U.S. Economic Recovery through June 2021

In the fourth quarter of 2020 and first quarter of 2021, the U.S. government enacted additional pandemic aid packages—the COVID-Related Tax Relief Act of 2020 and the American Rescue Plan (ARP) Act—which provided additional funding to address COVID-19 infections and for vaccinating the population, expanded social safety net programs for the economically vulnerable, authorized two additional rounds of Economic Impact Payments (EIPs) to low- and middle-income households, extended unemployment benefits through September, opened a second draw of Payment Protection Program (PPP) loans, authorized new loans and grants for small businesses, and provided state and local governments with financial assistance for a variety of programs. Moreover, three vaccines were approved for emergency use and began to be distributed, starting with populations most vulnerable to complications from contracting the coronavirus.

Economic activity accelerated in the first half of 2021 as COVID-19 vaccines became more widespread, federal aid strengthened household and business balance sheets, consumers' assessments of the near-term outlook improved, and businesses reopened. Over the first half of 2021, real GDP expanded by 6.4% at an annual rate. Aside from the unprecedented pace seen in the initial post-shutdown recovery, growth in the first half of 2021 was the strongest half-year pace since 1984. As a result of this robust growth, real GDP had surpassed its pre-pandemic level by the end of the second quarter of 2021. Private domestic activity played a large role in this strong growth with real personal consumption expenditures rising by 11.6% over the first half of 2021 and business fixed investment gaining 11.1% the first two quarters of 2021.

Meanwhile, the labor market recovery continued during the first half of 2021, albeit at a slower pace than in the second half of 2020. By June 2021, a total of 15.7 million jobs had been recovered since April 2020, or 70.4% of those lost during the first two months of the widespread shutdowns. This included 15.8 million private sector jobs, or 73.8% of those previously lost. By June 2021, the unemployment rate had fallen to 5.9%, or 0.8 percentage points lower than the December 2020 level. Despite the improvement in the unemployment rate, the labor force participation rate was little changed, edging up by only 0.1 percentage point to 61.6% as participation rates for non-prime-age cohorts were either unchanged or decreased moderately. However, the 0.7 percentage point increase in the prime-age LFPR, which was 81.7% as of June 2021, was a favorable development for labor markets.

Inflation increased during the first half of 2021, pushed up by likely transitory factors, such as recovering energy prices, supply-chain disruptions, elevated demand for durable goods from fiscal stimulus, and increased demand for pandemic-sensitive services as the economy reopened. In the first half of 2021, the headline CPI rose by 3.6%, with two-thirds of the increase due to core inflation. The continued recovery of energy prices added 0.8 percentage points to headline CPI growth, while food prices added 0.3 percentage points to headline inflation—due to higher prices for food services, as well as for meat, poultry, fish, and eggs. Meanwhile, growth in the CPI for core goods and services rose by 3.0% in the first six months of 2021, spurred by shortages due supply-chain bottlenecks (particularly for motor vehicles) and stimulus-induced demand, as well as the re-opening of pandemic-sensitive services.

Economic Developments Since June 2021

Through the third quarter of 2021, the U.S. economy continued to expand, albeit at a slower rate than during the first half of the year, labor markets continued to improve strongly, but inflationary pressures remain elevated. According to the second estimate, real GDP grew 2.1% at an annual rate in the third quarter of 2021; the slowing was due in large part to supply-side disruptions that have been exacerbated by the persistence of the pandemic. On the other hand, the late-summer surge in domestic cases of Delta variant COVID-19 in the U.S., and the wind-down of federal fiscal aid, were less pronounced headwinds for the economy during the third quarter. The change in private inventories was the strongest contributor to real GDP in the third quarter, adding 2.1 percentage points to growth.

The economy has added an average of 604,000 jobs per month since the end of the second quarter, with much of the recovery in pandemic-affected services like air transport and the leisure and hospitality industry. As of October 2021, a total of 18.2 million jobs have been recovered since April 2020, or 81% of jobs lost during the first two months of the economic shutdown. Meanwhile, the unemployment rate fell by 1.3 percentage points to 4.6% in the past four months—the lowest rate since the start of the pandemic in March 2020. Labor force participation rates have remained relatively stable in recent months: the headline LFPR rate stood at 61.6% in October, unchanged from June; the prime-age LFPR was also unchanged from June at 81.7% over the past four months.

Inflationary pressures eased modestly in the third quarter but picked up in October. Inflation for food and energy goods and services remains elevated, lifted by depressed labor force participation, supply-chain disruptions, and tight global energy supplies. Supply-chain bottlenecks continue to push up prices for some goods as well—in particular, inflation rates for new and used cars picked up in October as semiconductor shortages continued to restrict firms' abilities to replace lean inventories and meet demand. Over the year through October 2021, the headline CPI rose by 6.2%, above the 12-month rate through June 2021, while the CPI for core goods and services rose to 4.6%, up from 4.5% over the year through June 2021. The price index for personal consumption expenditures (PCE) – the Federal Open Market Committee's preferred measure for its 2-percent average inflation target – shows similar, though more restrained growth.[5] Over the year ending in October 2021, PCE inflation was 5.0%, with a quarter of the growth driven by food and

[5] The PCE price index is chain-weighted to allow for changes in consumption, whereas the CPI's consumption basket is less frequently updated.

energy prices. Core PCE inflation was 4.1% over the year, largely driven by higher prices for durable goods (1.2 percentage points) and housing (0.5 percentage point).

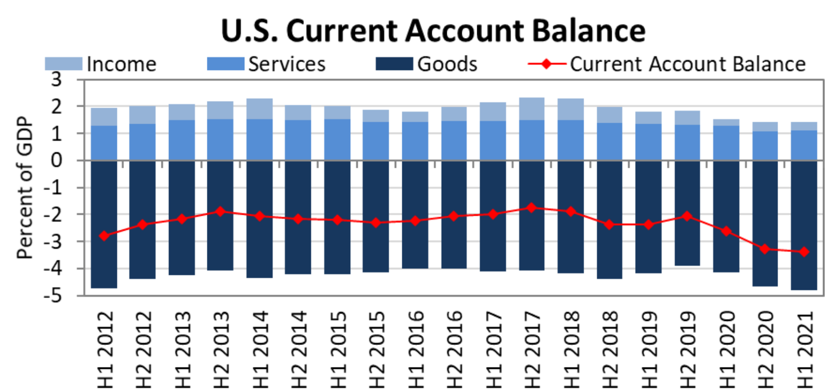
Federal Finances

The federal government's deficit and debt were trending higher before the pandemic but rose sharply as a result of the various fiscal responses to combat the pandemic's effect on the economy. At the end of fiscal year 2021, the federal government's budget deficit was $2.78 trillion (12.4% of GDP), down from $3.13 trillion (15.0% of GDP) at the end of fiscal year 2020 but still $1.79 trillion higher than in fiscal year 2019. Federal receipts totaled $4.05 trillion in fiscal year 2021, up $626 billion (18.3%) from fiscal year 2020. Net outlays for fiscal year 2021 were $6.82 trillion, up $266 billion (4.1%) from fiscal year 2020, primarily due to the extensive fiscal measures enacted to counter the pandemic's effects on low- and middle-income households and small businesses.

At the end of fiscal year 2021, gross federal debt was $28.4 trillion, up from $26.9 trillion at the end of fiscal year 2020. Federal debt held by the public, which includes debt held by the Federal Reserve but excludes federal debt held by government agencies, rose from $21.0 trillion at the end of fiscal year 2020 (100.3% of GDP) to $22.3 trillion by the end of fiscal year 2021 (99.7% of GDP).

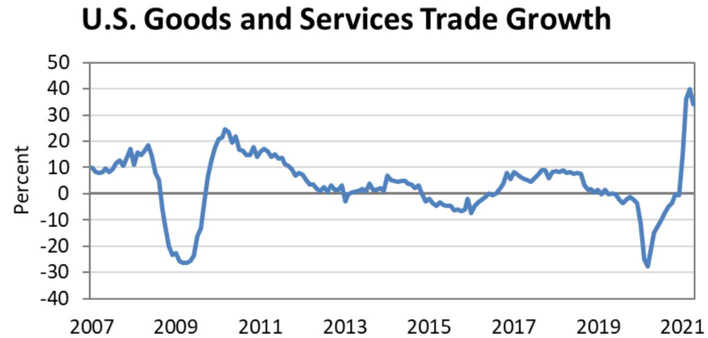
U.S. Current Account and Trade Balances

The U.S. current account deficit rose in the first half of 2021 to 3.3% of GDP, a year-on-year increase of 0.8 percentage points. Strong growth in the United States driven by unprecedented fiscal policy support and vaccination efforts, combined with the unleashing of pent-up demand after quarantines and travel prohibitions were lifted, have resulted in the rising deficit.



Sources: Bureau of Economic Analysis, Haver

Following subdued trade in the last half of 2020, trade recovery accelerated, marking a 33.9% year-over-year growth in June 2021. Relative to the end of 2020, goods exports increased about 6.9% while goods imports increased 4.0%. However, as a share of GDP, goods imports outweighed goods exports, leading to a wider U.S. trade deficit of 3.7% of GDP in the first half of 2021. Over the same time frame, net services decreased 2.5%. Surplus net income, which increased 2.9% over the past four quarters, partially offset the expanded trade deficit.



Note: Trade growth calculated as year-over-year percentage change in the sum of exports and imports.
Source: U.S. Census Bureau

The U.S. net international investment position marked a net liability of $15.4 trillion as of end-June 2021. Relative to the end of 2020, the net liability position widened by $1.4 trillion by the end of the second quarter of 2021. The value of U.S.-owned foreign assets was $34.2 trillion, while the value of foreign-owned U.S. assets stood at $49.6 trillion.

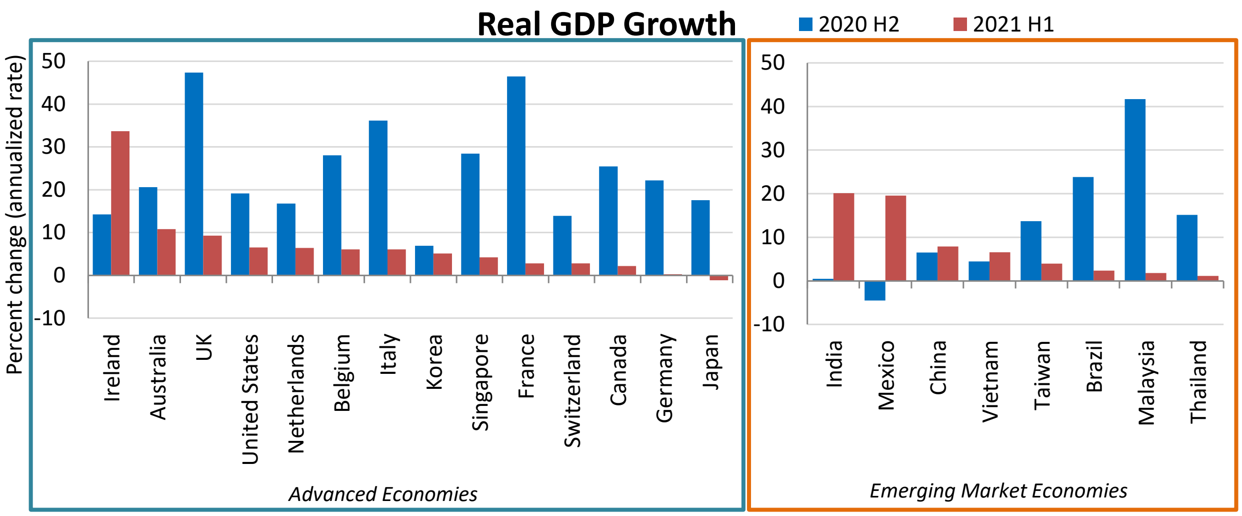
International Economic Trends

Following a steep contraction of the global economy in 2020, recovery began to take hold in 2021 for most economies. The recovery has been most pronounced in economies that undertook strong policy support and where a larger share of the population has been vaccinated—though the Delta variant complicated the full resumption in economic activity for most. Where policy space and vaccine distribution has been more limited, recoveries are struggling to find firm footing, leading to a divergence in global growth.

Following a 3.1% contraction of the global economy in 2020, the IMF projects global growth of 5.9% in 2021. Advanced economies, in aggregate, are projected to reach pre-pandemic trends by 2022. In contrast, emerging market and developing economies are projected to remain below pre-pandemic trends over the medium term, though there is a lot of variation within this group. Labor markets are not likely to recover as quickly as overall economic activity, which is likely to exacerbate inequality between and within economies.

The global recovery is subject to downside risks as COVID-19 variants and ongoing supply chain and transportation bottlenecks add uncertainty to the global outlook. Given this additional uncertainty and the potential for start-stop recoveries, countries should employ available policy space to maintain their robust responses, both in the rollout and distribution of vaccines and in supportive fiscal, monetary, and macroprudential policies, to minimize the divergence that has started to take place. An uneven global recovery is not a resilient recovery. It intensifies inequality, exacerbates global imbalances, and heightens risks to the global economy.

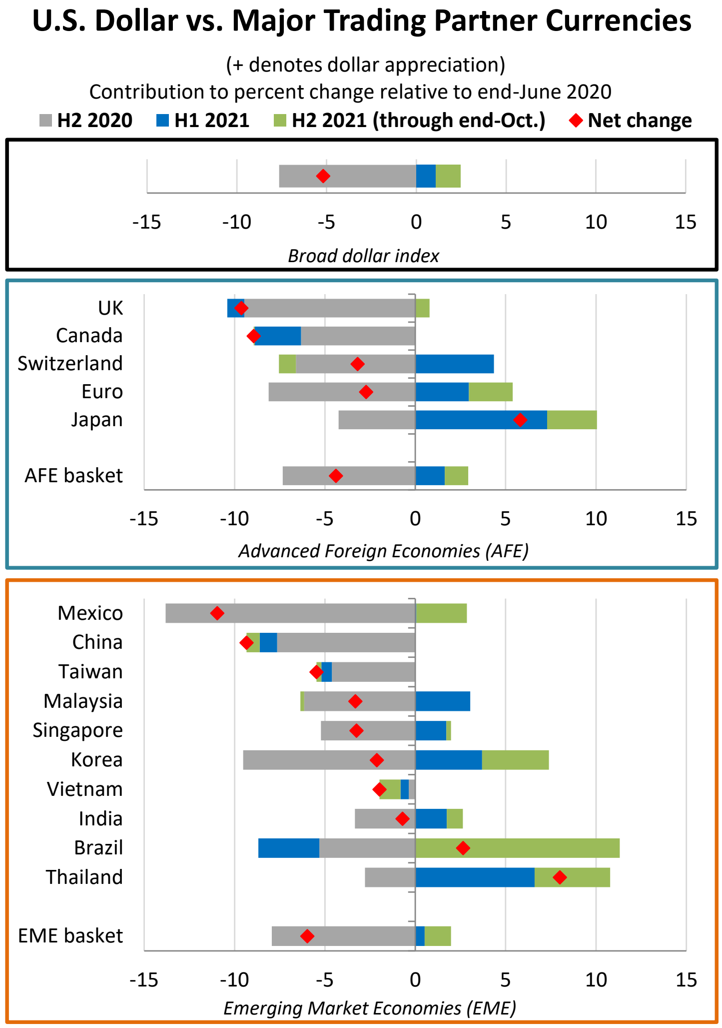
Beyond the uncertainty associated with new variants, there are several reasons to consider additional fiscal support, including the role of fiscal policy when monetary policy is at the effective lower bound and spending can address structural issues like climate change, inequality, and digitalization. Countries in which interest rates are zero or negative, especially if they also run current account a surplus, should take this opportunity to fund longer-term public investments to boost productivity and growth.



Note: Based off semester average of Q/Q SAAR growth rates. China, India, Mexico, and Vietnam based off Y/Y NSA data for the final quarter of each period.
Sources: National Authorities, Haver

Foreign Exchange Markets[6]

Increased capital flow volatility, large outflows from emerging markets, and the rapid strengthening of the dollar in March and April 2020 subsided against the backdrop of brighter global risk sentiment and central banks' swift actions to calm markets. The nominal trade-weighted dollar declined 5.2% from the end of June 2020 to end-October 2021, with improved global risk appetite and brighter prospects for economic recovery.

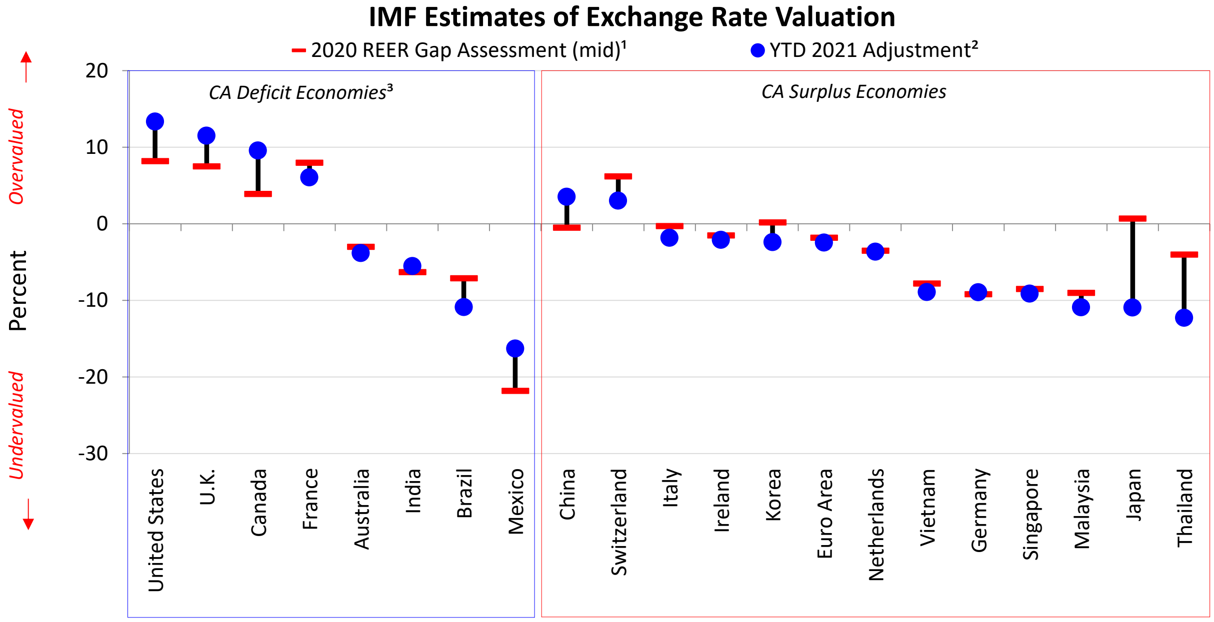


Sources: FRB, Haver

In the second half of 2020, the dollar depreciated against all major trading partner currencies. The dollar weakened at least 5.0% since June 2020 against these currencies, with exception of the smaller movements against the Vietnamese dong and Thai baht. Dollar appreciation followed in the first half of 2021, most notably against the euro, Swiss franc, Japanese yen, Korean won, Singapore dollar, Indian rupee, Malaysian ringgit, and Thai baht. From June 2021 until October 2021, the dollar appreciated by 2.3%, strengthening against a basket of advanced foreign economy currencies by 2.8% and a basket of emerging market economy currencies by 1.8%.

On a real effective basis, the dollar depreciated 2.1% from end-June 2020 to end-October 2021. Despite this decline, the real dollar is almost 9% above its 20-year average as of end-October 2021. The IMF continues to judge the dollar to be overvalued on a real effective exchange rate basis. Meanwhile, the real effective exchange rates of several surplus economies that the IMF assessed to be undervalued in 2020 have adjusted minimally or depreciated in 2021 (e.g., Germany, Singapore, Malaysia, and Thailand).

[6] 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.

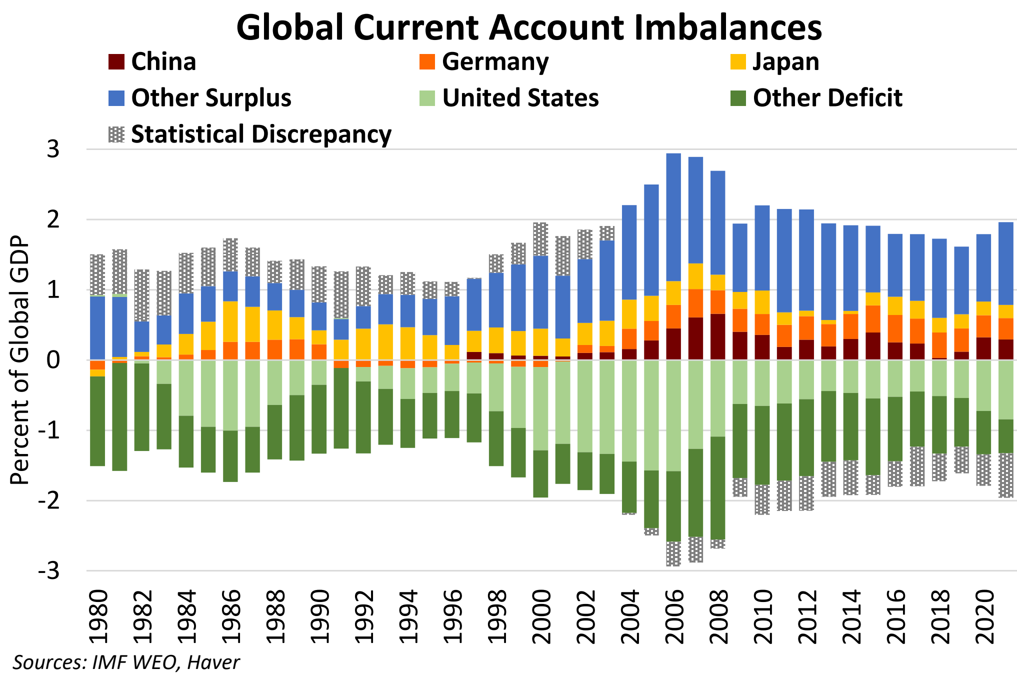


Sources: IMF 2021 External Sector Report, IMF 2021 Article IV Consultation Staff Report for Ireland, IMF 2020 Article IV Consultation Staff Report for Vietnam, BIS REER Indices, JP Morgan, FRB
1/The IMF's estimate of real effective exchange rate (REER) gap (expressed as a range) compares the country's average REER in 2020 to the level consistent with the country's medium-term economic fundamentals and desired policies. The midpoint of the gap range is depicted above. REER gap for Vietnam uses 2019 REER Gap.
2/Change between end-October 2021 and 2020 average REER.
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.

Global Imbalances

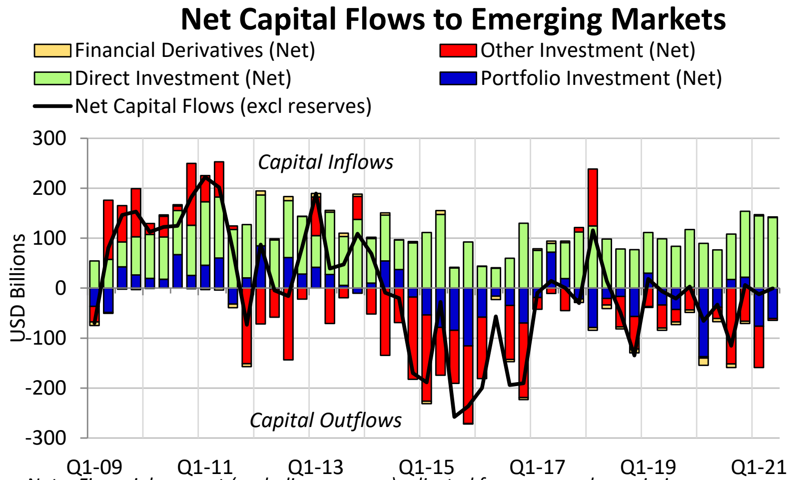
Global current account imbalances were broadly stable in the few years prior to the pandemic. The IMF June 2021 External Sector Report indicates that, at the global level, current account surpluses widened to 1.8% of world GDP in 2020, up 0.2 percentage points from 2019, with estimated excessive current account surpluses and deficits remaining unchanged at 1.2% of world GDP. High commodity prices alongside the external demand generated by advanced countries that are recovering at a quicker pace than emerging and developing countries are contributors to the global surplus. Among major U.S. trading partners, the very large surpluses of Germany, Korea, Ireland, Taiwan, Netherlands, and Singapore have each remained significant as a share of GDP, with the combined surpluses of these economies totaling $748 billion over the four quarters through June 2021 (equivalent to nearly 40% of all current account surpluses). Japan's current account surplus remains comparatively high in dollar terms at $178 billion. China's surplus was even higher in dollar terms at $340 billion in the four quarters through June 2021, its highest level since 2015.

The containment of the COVID-19 virus and its effects has understandably led to extraordinary policy responses that continue to weigh on global trade and shifts in saving and investments, thereby driving increases in global imbalances. With the economic effects of the pandemic lingering and recoveries remaining fragile, it is still too soon to determine the extent to which these shifts are temporary or more persistent. In some cases, these persistent imbalances also reflect past policy distortions. Yet, divergent recoveries between advanced economies and emerging markets threaten to exacerbate the buildup of current account imbalances. In general, and especially at a time of recovering global growth, adjustments to reduce excessive imbalances should occur through a symmetric rebalancing process that sustains global growth momentum rather than through asymmetric compression in deficit economies—the channel which too often has dominated in the past. As the global economic recovery path continues to stabilize, it is critical to adopt policies that allow for a narrowing of excessive surpluses and deficits. Relatively easy financing conditions present a timely opportunity to pursue additional fiscal measures where policy space is available to support languishing recoveries.

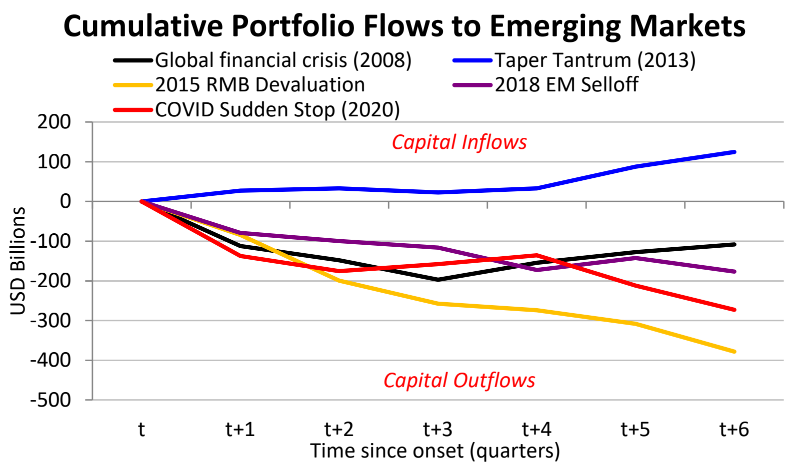


Capital Flows to Emerging Market Economies

Net capital flows to emerging market economies stabilized over the fourth quarter of 2020 and first half of 2021 following the sharp outflow of portfolio debt and equity from emerging markets in early 2020. Portfolio inflows and robust foreign direct investment, combined with decelerating outflows of other investment, pushed net capital flows up to $6 billion by end-2020. Net portfolio outflows resumed in the first quarter of 2021, totaling $76 billion, while sustained net outflows of other investment continued to weigh on net aggregate flows.[7] Over the four quarters through June 2021, net outflows of portfolio and other investment totaled $401 billion, roughly $91 billion more than the same period in 2020. During this period, nonresident net flows remained positive, suggesting that foreign investor demand for emerging market economy assets recovered, but were offset by resident net outflows. On a cumulative basis, net portfolio flows have remained well below pre-pandemic levels. Higher frequency data (from sources beyond quarterly balance of payments data) suggest that, since end-June 2021, the pace of portfolio equity outflows to emerging markets has stabilized, though net portfolio equity flows have continued to slowly trickle out of emerging markets excluding China.



Note: Financial account (excluding reserves) adjusted for errors and ommissions. 2021 reflects data through the end-June where available.
Source: National Authorities, U.S. Department of the Treasury Staff Calculations



Note: Financial account (excluding reserves) adjusted for errors and ommissions. 2021 reflects data through the end-June where available.
Source: National Authorities, U.S. Department of the Treasury Staff Calculations

[7] Large resident outflows from China continued into early 2021, totaling $115 billion in end-March.

Foreign Exchange Reserves

Global foreign currency reserves increased by $800 billion over the four quarters through June 2021, reaching $12.8 trillion. During the second half of 2020, reserve growth was a product of both net foreign exchange purchases (totaling $303 billion) as well as valuation effects caused by dollar depreciation against other currencies, which contributed $387 billion to the rise in reserves. Reserves increased further in the first half of 2021 due to net purchases of foreign exchange totaling $238 billion, though this was offset partly due to valuation effects, as dollar appreciation contributed to a $128 billion decline in the level global reserves. Over the four quarters through June 2021, estimated interest income contributed minimally to the rise in reserves.

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	3,214.0	101.7	19%	226%	120%
Japan	1,294.3	-12.2	25%	40%	..
Switzerland	1,018.8	122.7	129%	82%	..
India	568.7	102.8	20%	555%	197%
Taiwan	543.3	54.6	75%	276%	..
Korea	441.2	42.6	25%	248%	99%
Singapore	393.9	84.1	108%	34%	..
Brazil	336.9	0.1	22%	528%	161%
Thailand	230.0	-0.4	44%	377%	241%
Mexico	185.1	1.9	16%	364%	128%
UK	129.5	-5.4	4%	2%	..
Malaysia	106.3	7.5	29%	114%	118%
Vietnam	99.8	16.5	30%	316%	..
Canada	75.9	1.2	4%	8%	..
France	54.1	0.4	2%	2%	..
Italy	48.5	5.6	2%	4%	..
Australia	37.8	5.2	2%	11%	..
Germany	37.1	-0.8	1%	1%	..
Belgium	10.6	-0.3	2%	2%	..
Netherlands	5.9	1.9	1%	1%	..
Ireland	5.4	1.9	1%	1%	..
World	12,812.1	799.9	n.a.	n.a.	..

Foreign exchange reserves as of end-June 2021.

GDP caluclated as sum of rolling 4Q GDP through Q2-2021.

Short-term debt consists of gross external debt with original maturity of one year or less, as of the end of Q2-2021; Vietnam as of Q1-2021; Ireland as of Q2-2020.

** IMF Assessing Reserve Adequacy Metric, a composite measure of reserve adequacy, as of end-2020. 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.

Although there is no single commonly accepted standard for assessing reserve adequacy, the economies covered in this Report continue to maintain ample—or more than ample—foreign currency reserves compared to standard adequacy benchmarks. Reserves in most of these economies are more than sufficient to cover short-term external liabilities and anticipated import costs. Moreover, assessments of adequacy based on composite metrics across emerging market economies suggest reserves are broadly adequate.[8] Meanwhile, other economies, particularly low-income countries, are facing shortages of foreign exchange reserves to address external financing needs. The IMF's August 2021 general allocation of Special Drawing Rights, equivalent to about $650 billion, should help alleviate these shortages and provide vulnerable economies with the necessary liquidity to weather external pressures resulting from the pandemic. Credible and effective macroeconomic policy frameworks, rather than intervention to accumulate reserves beyond adequate levels, should serve to buffer external shocks. This is particularly relevant for economies with other reserve-like resources such as swap lines, sovereign wealth funds, and credit lines from international financial institutions that can serve as additional buffers.

Box 1: The Role of the U.S. Dollar in the International Monetary System

The U.S. dollar is the leading currency in the international monetary system. Over the past decades, the international monetary and financial system has evolved, accommodating increasing cross-border financial flows, bouts of foreign exchange market volatility, shifts in exchange rate and monetary policy regimes, and ongoing developments in financial technologies. Notably, the international monetary system has also experienced the advent of the euro and gradual internationalization of the renminbi. However, throughout these changes, the dollar has retained a central role in the world economy and the international monetary system.

This fact is reflected in economic and financial data:

- In 2019 (latest data available), the dollar was on one side of 88% of global foreign exchange transactions, up from 85% in 2010 and only slightly below its 1989 share of 90%, prior to the existence of the euro.
- The dollar remains the predominant currency choice for central bank holdings of foreign exchange reserves, standing at almost 60% of measured reserves as of end-September 2021.
- The IMF estimates[9] about 40% of global trade is invoiced in dollars, even though only 10% of global exports are destined to the United States.
- As of 2020, U.S. dollar-denominated assets accounted for 40% of cross-border bank claims and more than 40% of outstanding international debt securities.
- As of end-2020, $12 trillion of the $17 trillion in foreign currency-denominated international debt securities outstanding was denominated in dollars.[10]

[8] Further detail on this and other adequacy metrics can be found in "Annex I: Foreign Exchange Reserves – Recent Developments and Adequacy Measures" of the October 2017 FX Report. Available at: https://home.treasury.gov/system/files/206/2017-10-17Fall2017FXReportFINAL.pdf.

[9] IMF Working Paper 20-126, which provides share of exports and imports invoiced in dollars, euros, and other currencies where data is available. Data are not available for Mexico and China, two major U.S. trading partners.

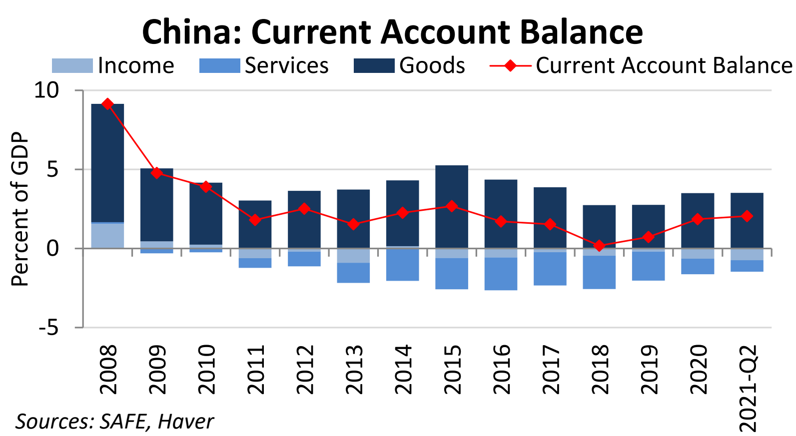
[10] Source: BIS. International debt securities are debt securities issued outside of the local market in the country where the borrower resides.

The long-standing and continued prominence of the dollar is underpinned by a confluence of factors including the United States' strong economic performance, sound macroeconomic policies and institutions, open, deep, and liquid financial markets, institutional transparency, commitment to a free-floating currency, and strong and predictable legal systems. The value of the dollar, which is determined by markets, reflects these fundamentals. So long as U.S. policies continue to support these attributes, as they have for decades, the dollar's role will remain firm as the international monetary system continues to evolve.

Economic Developments in Selected Major Trading Partners

China

The economic effects of the pandemic resulted in growth of just 2.3% in 2020, the lowest since 1976. China's real GDP grew by 18.3% year-over-year in the first quarter of 2021 and by 7.9% year-over-year in the second quarter. China's economic recovery and COVID-19 containment strategy emphasized supply-side support that enabled a rapid resumption of manufacturing and minimized disruptions in production. At the same time, a focus on investment instead of household support in combination with an inadequate social safety net stymied the recovery in domestic consumption, which has been further exacerbated by lockdowns following periodic outbreaks of COVID-19. The authorities have shifted to a tighter fiscal stance this year amid renewed efforts to rein in infrastructure and property investment. China's monetary policy has continued to normalize following modest loosening in 2020, but the authorities have shown flexibility recently by taking actions to ease banks' funding costs.

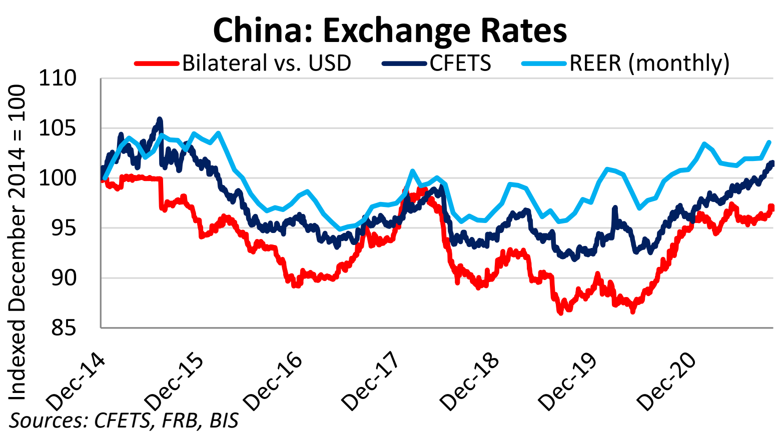


Sources: SAFE, Haver

China's current account surplus rose to 2.1% of GDP in the four quarters through June 2021, compared to 1.9% of GDP in 2020, driven by larger surpluses in the second half of 2020. In the first half of 2021, China's current account surplus moderated to 1.5% of GDP, largely driven by an increase in imports due to increased commodity prices, among other factors. Exports slightly increased in the first half of 2021 relative to the second half of 2020, reflecting China's ability to maintain its manufacturing capacity and meet broad-based external demand while pandemic-related supply chain disruptions impacted other major exporters. Meanwhile, China's services deficit remains subdued; the $50.5 billion deficit recorded in the first half of 2021 is roughly one-third of its pre-pandemic level, primarily due to the collapse of outbound tourism. Treasury assesses that in 2020, China's external position was stronger than warranted by economic fundamentals and desirable policies, with an estimated current account gap of 1.7% of GDP.

China's bilateral goods trade surplus with the United States remains the largest by far of any U.S. trading partner, reaching $338 billion in the four quarters through June 2021. China ran a bilateral services trade deficit of $19 billion with the United States over the same period. Overall, the bilateral goods and services balance reached $318 in the four quarters through June 2021, compared with $275 billion in the year prior.

China experienced substantial portfolio debt inflows in the four quarters through June 2021, while inbound foreign direct investment to China reached a record $321 billion over the same period. These capital inflows, which create pressures for the RMB to appreciate, were balanced by a large "other investment" deficit, bringing the overall financial account into a deficit. China's other investment deficit reached $335 billion in the four quarters through June 2021, compared to $100 billion in the four quarters through June 2020, suggesting an increase in capital outflows related to bank activity. A net errors and omissions deficit of $206 billion, compared to $99 billion a year prior, provided another balancing outflow and suggests an uptick in undocumented capital outflows that are not captured within the conventional components of the financial account.[11] Treasury's estimate of net capital outflows (excluding flows accounted for by trade and direct investment) totaled $529 billion in the four quarters through June 2021, compared to $297 billion a year earlier. While substantial, these outflows remain below the peak levels witnessed in 2015 and 2016.



The RMB appreciated by 8.3% against the dollar in the second half of 2020, but appreciation moderated in the first half of 2021 to 1.8% despite continued strong trade surpluses. The RMB appreciated by 1.9% against the dollar in the first ten months of 2021. Over the same period the RMB strengthened by 5.7% against the People's Bank of China's (PBOC) China Foreign Exchange Trade System (CFETS) nominal basket and by 2.7% on a real effective basis.[12]

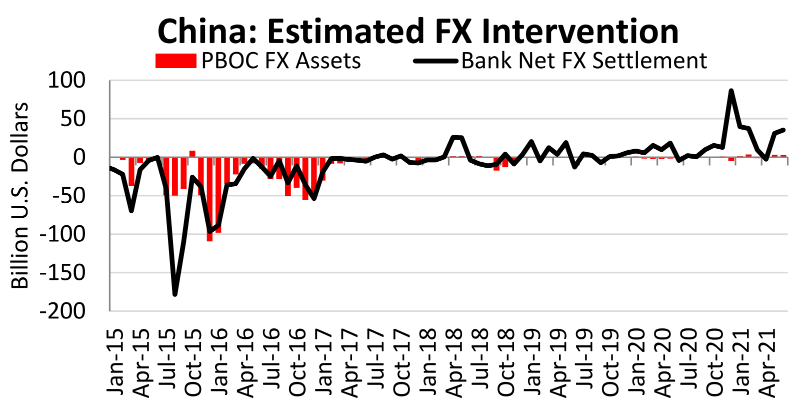
China provides very limited transparency regarding key features of its exchange rate mechanism, including the policy objectives of its exchange rate management regime, the relationship between the PBOC and foreign exchange activities of the state-owned banks, and its activities in the offshore RMB market. The PBOC manages the RMB through a range

[11] China's reporting of its net errors and omissions data has historically lagged reporting of other balance of payments data, raising additional questions regarding data quality and disguised capital outflows.
[12] The CFETS RMB index is a trade-weighted basket of 24 currencies published by the PBOC.

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.

Over the past year, the authorities have taken regulatory measures that in aggregate appear to disincentivize RMB appreciation. In 2020, the authorities removed the foreign exchange forward risk reserve ratio and indefinitely suspended the counter-cyclical factor in setting the daily fix, facilitating RMB depreciation against the dollar. As capital inflows increased in the second half of 2020, the authorities announced a series of increases to outbound investment quotas that could provide offsetting capital outflows to stem RMB appreciation pressures. While the above measures are liberalizing in principle, in practice the timing of their implementation appeared to disincentivize RMB appreciation. The authorities also pursued verbal intervention as RMB appreciation pressures mounted, including a May 2021 statement by a PBOC official emphasizing two-way movements in the RMB exchange rate, followed days later by comments from a former PBOC official portraying the RMB's appreciation as "unsustainable."[13] In June 2021, the PBOC raised the foreign exchange required reserve ratio for the first time since 2007, which tightened onshore foreign currency liquidity conditions. 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 macroprudential measures and their potential impact on the exchange rate.

Compared to other major economies, China is increasingly an outlier with respect to its non-disclosure of foreign exchange market intervention, which forces Treasury staff to estimate China's direct intervention in the foreign exchange market.



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

China's headline foreign exchange reserves increased by $102 billion in the four quarters through June 2021, standing at $3.2 trillion. In contrast, over the same period monthly changes in the PBOC's foreign exchange assets recorded no significant changes, increasing by only $6.2 billion. Meanwhile, monthly net foreign exchange settlement data, another proxy measure for foreign exchange

[13] Statement issued by PBOC Deputy Governor Liu Guoqiang, available at http://www.pbc.gov.cn/en/3688110/3688172/4157443/4253138/index.html, and Xinhua interview with former Director General of the PBOC's Financial Survey and Statistics Department Sheng Songcheng, available at http://www.xinhuanet.com/english/2021-05/30/c_139979127.htm.

intervention that includes the activities of China's state-owned banks, recorded net foreign exchange purchases of nearly $278 billion (1.7% of GDP) in the four quarters through June 2021, adjusted for changes in outstanding forwards. This figure represents the largest 12-month sum of net purchases since 2014. The precise causes for the large divergence between monthly changes in the PBOC's foreign exchange assets and net foreign exchange settlements data remain unclear. As Treasury noted in the April 2021 FX Report, the divergence between these 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, including official intervention conducted through the state-owned banks. Overall, these developments highlight the need for China to improve transparency regarding its foreign exchange intervention activities.

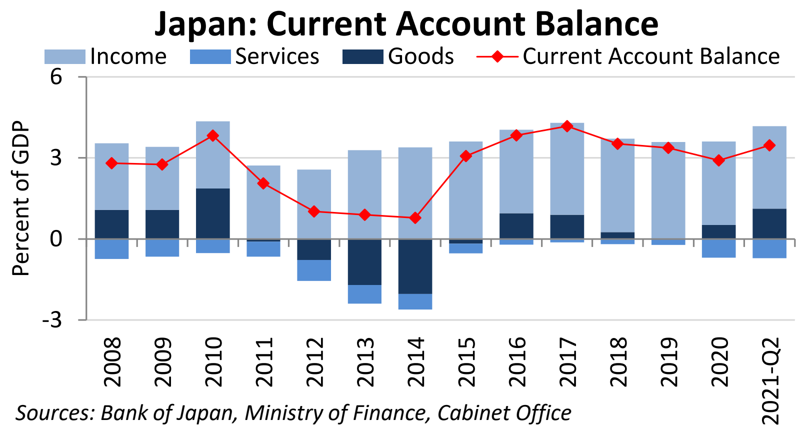
Chinese authorities must balance supporting economic growth against managing growing financial stability risks. Lackluster private demand—underpinned by continued weakness in the labor market—raises concerns that China will not be able to increase reliance on household consumption absent additional official support. China should seek to reverse lost momentum on economic rebalancing and strengthen long-term growth prospects by taking decisive steps to strengthen its social protection system and allow for greater market openness. Authorities should prioritize structural reforms that reduce state intervention in the economy and enhance social safety net measures that reduce precautionary saving and support household consumption growth.

Japan

Japan's economic recovery has lagged advanced economy peers. Economic activity rebounded in the second half of 2020 but faltered in the first quarter of 2021, declining at an annualized rate of -4.2%, amid rising COVID-19 cases and a reinstitution of state of emergency measures. Growth turned positive in the second quarter, reaching an annualized rate of 1.9% on higher household consumption and business investment. However, pandemic restrictions continue to hamper a full recovery. The government responded to the pandemic with robust fiscal policy, enacting three substantial stimulus packages during FY 2020 (April 2020 – March 2021) that drove a positive fiscal impulse of 6.6 percentage points.[14] Monetary policy remains extremely accommodative with negative short-term rates and yield curve control policies in place.

[14] As measured by the year-to-year change in the general government cyclically adjusted primary balance in the October 2021 IMF Fiscal Monitor.

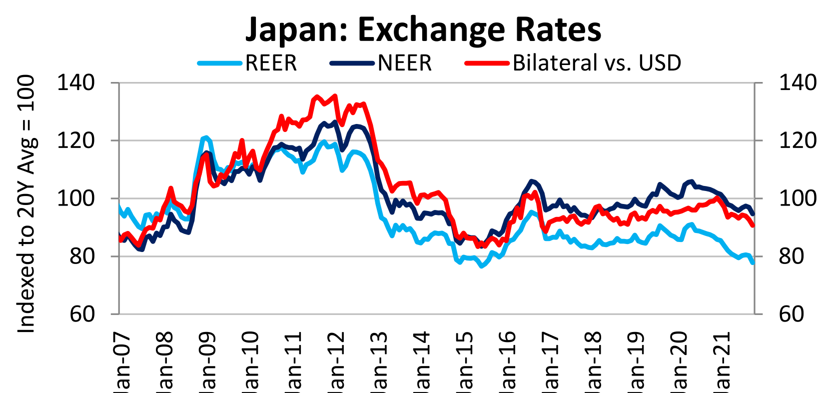
Japan's current account surplus rose to 3.5% of GDP over the four quarters ending June 2021 from 2.9% of GDP in 2020 on higher goods exports. Overseas income from Japan's substantial stock of net foreign assets remains the largest factor driving the current account surplus. Relative to 2020, the primary income balance remained steady at 3.6% of GDP over the four quarters ending in June 2021, while secondary income remained in deficit equal to 0.5% of GDP, leaving the overall income balance unchanged at 3.1% of GDP. Treasury assesses that in 2020, Japan's external position was stronger than warranted by economic fundamentals and desirable policies, with an estimated current account gap of 1.4%. The goods and services trade surplus with the United States was $57 billion over the four quarters ending in June 2021, up 26% from the same period in 2020.



Sources: Bank of Japan, Ministry of Finance, Cabinet Office

Japan experienced net capital outflows of 2.9% of GDP in 2020. Direct investment outflows totaled 2.1% of GDP, while portfolio outflows led by private sector trust and financial investment firms totaled 0.8% of GDP. Net capital outflows accelerated over the first half of 2021, totaling 5.1% of GDP on the back of surging portfolio outflows.

The yen appreciated 5.3% against the dollar in 2020 as the pandemic sparked a drive toward safe-haven currencies. Over the first ten months of 2021, however, the yen depreciated 9.5% against the dollar as widening interest rate differentials between the United States and Japan have supported dollar strength over the yen. Likewise, the yen weakened substantially on a real effective basis by 9.3% over the same period, reflecting in part rising inflation among major trading partners.



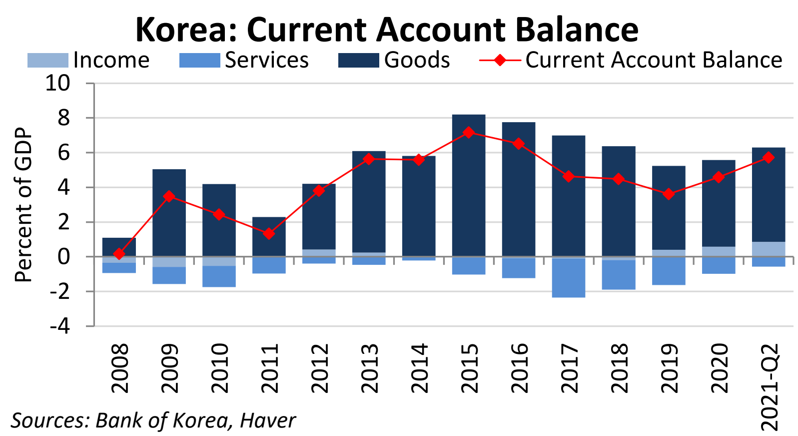
Sources: FRB, Bank for International Settlements

Japan is transparent with respect to foreign exchange operations, regularly publishing its foreign exchange interventions each month. It has not intervened in foreign exchange markets since 2011. Treasury's firm expectation is that in large, freely traded exchange markets, intervention should be reserved only for very exceptional circumstances with appropriate prior consultations.

Japanese policymakers have prioritized supporting the economy amid the pandemic with significant fiscal and monetary stimulus. As conditions normalize, Japan should reorient policy toward structural measures that improve the productive capacity of firms and individuals to raise potential growth over the long run. Such measures include increasing domestic investment, promoting labor mobility to enhance wage growth, advancing enduring corporate governance reforms, and supporting technology adoption across industries, in particular small and medium enterprises.

Korea

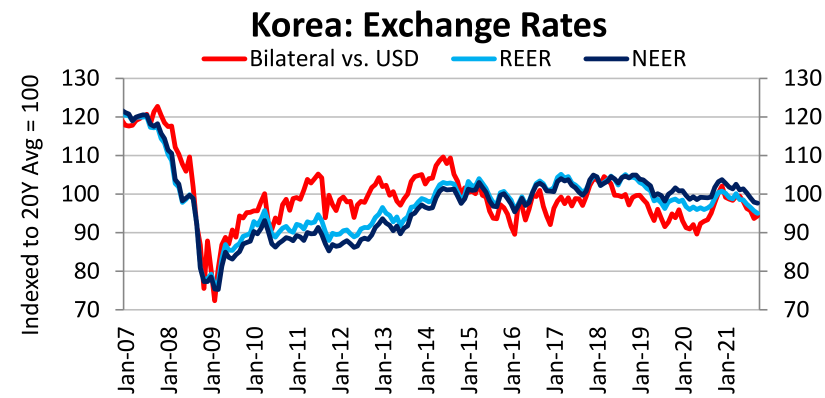
Korea's real GDP grew by 6% over the four quarters ending in June 2021, after a modest contraction in the first half of 2020. Korean authorities complemented robust public health measures to limit the spread of COVID-19 with accommodative fiscal policy measures. The authorities deployed an expanded 2021 budget and two supplementary spending packages projected to bring the fiscal deficit to 4.4% of GDP, roughly the same as a year before. With a low debt-to-GDP ratio of approximately 47%, Korea has ample fiscal space to support growth in the medium term and pare down fiscal spending gradually as conditions allow. Monetary authorities largely maintained pandemic-related support measures to ease monetary conditions and support Korea's economic recovery for much of 2021, but the Bank of Korea (BOK) implemented a 25 basis points rate hike in August 2021 to address growing financial imbalances.



Sources: Bank of Korea, Haver

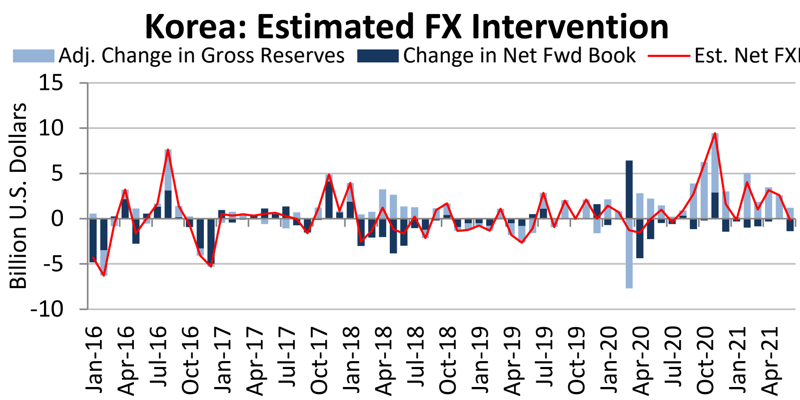
Korea's current account surplus widened to 5.7% of GDP over the four quarters ending in June 2021, compared to 3.5% over the same period in the previous year. The widening was driven by an increase in the goods balance and a narrowing in the services deficit, which continued to be impacted by distortions related to COVID-19. Treasury assesses that in 2020, Korea's external position was weaker than warranted by economic fundamentals and desirable policies, driven in part by the effect of demographics on national saving. Korea's bilateral trade surplus with the United States, inclusive of goods and services, expanded to $19 billion over the four quarters ending in June 2021, up sharply from $10 billion over the same period in the previous year.

The Korean won appreciated sharply in the second half of 2020, strengthening 10.5% against the dollar, driven by Korea's large trade surplus and solid capital inflows. The won reversed course in 2021, weakening 7.6% on a bilateral basis against the dollar and 5.7% on a real effective basis over the first ten months of the year, as sizeable equity outflows eased appreciation pressures from the current account surplus. Foreign investors, on net, purchased $97 billion in Korean debt and sold $34 billion in Korean equities over the first ten months of 2021.



Sources: FRB, Bank for International Settlements

Korea reported net foreign exchange purchases of $11 billion (0.7% of GDP) in the spot market to stem won appreciation over the four quarters ending in June 2021. Treasury estimates that Korean authorities made most of these purchases in the fourth quarter of 2020, when the won appreciated 7.4%. Korea has well-developed institutions and markets and should limit currency intervention to only exceptional circumstances of disorderly market conditions. Korea maintains ample foreign exchange reserves at $446 billion as of July 2021, equal to 2.5 times gross short-term external debt. Korea publicly reports its foreign exchange intervention on a quarterly basis.[15]



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

Korea has maintained economic support to undergird the return to normal economic activity and should continue to deploy measures as needed to encourage medium-term growth. Monetary policy should be carefully calibrated to balance price stability and financial stability objectives, with care taken to not withdraw monetary accommodation too quickly. Progress on structural reforms, including strengthening social safety net programs and addressing labor market duality, would help secure economic opportunity

[15] Treasury's estimates are more frequent and are based on valuation- and interest-adjusted changes in foreign exchange reserves as well as changes in the central bank's forward position. Over the four quarters ending in June 2021, Treasury estimated $31 billion in estimated foreign exchange purchases. Operating profits from the BOK's foreign currency security sales and interest income drove the gap between Treasury's estimate and the Korean authorities' reported intervention figure.

for young workers and reduce old-age poverty while increasing potential growth over the long term.

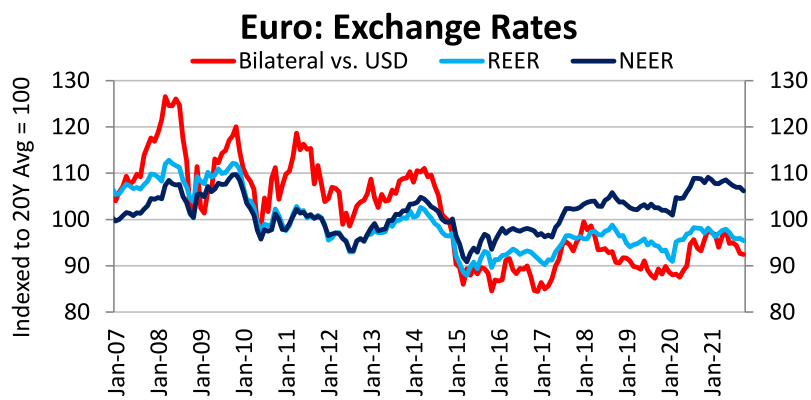
The Euro Area

The pace of the euro area recovery exceeded expectations in the first half of 2021, with real GDP expanding by 9.2% at an annual rate during the second quarter of the year. Domestic demand has been the primary engine driving the current expansion, led by a dramatic pick-up in private consumption expenditure. This reflects a combination of rising real disposable income and a declining savings rate from substantially above-trend levels at the height of the crisis in 2020. Net exports also made a positive contribution to economic growth over the first half of 2021, rising alongside the improvement in global economic conditions, while a continued strong and supportive policy response remains in place to support the ongoing recovery. Uncertainty related to COVID-19 and disruptions in global supply chains remain key downside risks, although headwinds from the Delta variant have been modest relative to earlier waves of the virus. The European Central Bank (ECB) expects euro area real GDP to exceed its pre-crisis level by the end of 2021, with output growing by 5% this year and 4.6% in 2022.

The unprecedented monetary and fiscal policy response launched to counter the pandemic was instrumental to setting the foundations for a robust recovery and has remained a key support in 2021. According to European Commission estimates, fiscal support at the national level in 2020 amounted to around 8% of euro area GDP (including automatic stabilizers), of which the ECB estimates included 4.2% of GDP in discretionary measures. In addition, governments extended financial support to firms and credit guarantees for bank lending to businesses of about 19% of euro area GDP in the crisis response, much of which has not been tapped but remains available. Discretionary fiscal measures are set to expand to 4.6% of GDP this year before falling off sharply in 2022 (to around 1.5% of GDP) as key crisis response tools such as job retention schemes are wound down. At the EU level, the roughly $940 billion Next Generation EU pandemic recovery package agreed in July 2020 is now operational, with recovery fund disbursements likely to drive a significant pickup in government investment starting from the second half of 2021 and continuing next year.

The ECB has maintained a highly accommodative stance this year, with the key elements of its crisis response package still in full force. Net asset purchases under its Pandemic Emergency Purchase Program (PEPP) and Asset Purchase Program (APP) in July reached the highest pace since June 2020, reflecting a commitment by the Governing Council to conduct purchases "at a significantly higher pace than during the first months of the year" in the second and third quarters of 2021. The pace of net purchases slowed as of end-October, in line with a decision at the September 9, 2021 policy meeting that "favorable financing conditions can be maintained with a moderately lower pace of net asset purchases under the [PEPP] than in the previous two quarters."[16] In addition, the ECB's Targeted Longer-Term Refinancing Operations (TLTROs) continue to make funding available to euro area lenders at interest rates as low as -1.0%, helping offset some of the pressure on net interest rate margins from negative policy rates. Although headline inflation figures have risen above the ECB's 2.0% target level in recent months, the ECB expects many of the factors behind the recent price surge to dissipate, leaving the outlook for inflation below target over the ECB's forecast horizon.

The euro area current account surplus fell to 1.9% of GDP in 2020, from 2.4% in 2019, as supply chain disruptions constrained production among major exporters. The balance has widened to 2.7% of GDP over the four quarters through June 2021. Recent projections that incorporate higher frequency data point to an evolving consensus among professional forecasters that the latest uptick will prove transient, however, likely narrowing to at or below 2% of GDP by year-end owing to the stubborn persistence of supply bottlenecks. Treasury assesses that in 2020, the euro area's external position was broadly in line with economic fundamentals and desirable policies.



Sources: FRB, Bank for International Settlements

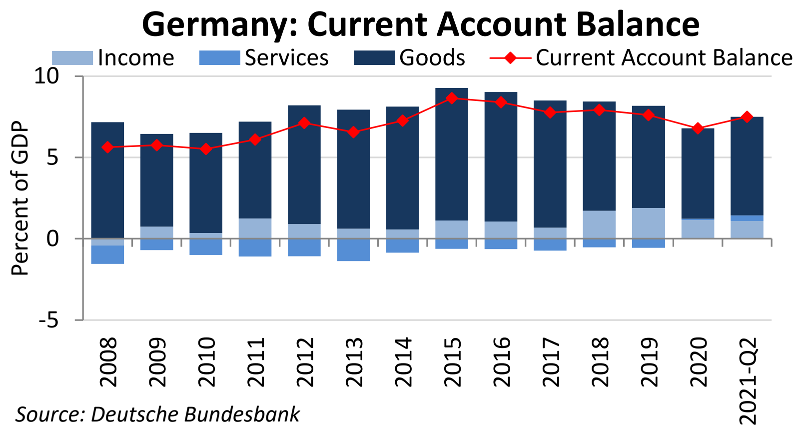
The euro depreciated by 5.5% against the dollar over the first ten months of the year after reaching a 12-month high on January 6, with widening interest rate differentials between the United States and Europe supporting dollar strength. The euro real effective exchange rate depreciated by 2.8% over the same period, reflecting in part rising inflation among major trading partners. The ECB publishes its foreign exchange intervention and has not intervened in foreign exchange markets since 2011.

Germany

Ongoing pandemic restrictions and supply chain disruptions hampered Germany's economic recovery in early 2021, but economic activity started to accelerate in the second quarter, driven by an increase in consumer spending, industrial production, and increasing demand for German exports. As the recovery continues to take hold, the IMF forecasts German real GDP to grow 3.1% in 2021, following a 4.6% contraction in 2020. Germany has extended most pandemic fiscal support measures for households and firms through

[16] The Governing Council reiterated this stance in its October 28, 2021 decision. "Press Release: Monetary policy decisions." September 9, 2021. Available at: https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.mp210909~2c94b35639.en.html. "Press Release: Monetary policy decisions." October 28, 2021. Available at: https://www.ecb.europa.eu/press/pr/date/2021/html/ecb.mp211028~85474438a4.en.html.

2021, and the IMF expects the general government deficit to increase to about 6.8% of GDP in 2021, and gross debt to stay elevated, peaking at 72% of GDP. German headline inflation has risen steadily in 2021, in part due to the expiration of the 2020 value added tax reduction, other base effects, supply constraints, and high energy prices. The increase in inflation may weigh on consumer confidence if prices continue to outpace wage growth.



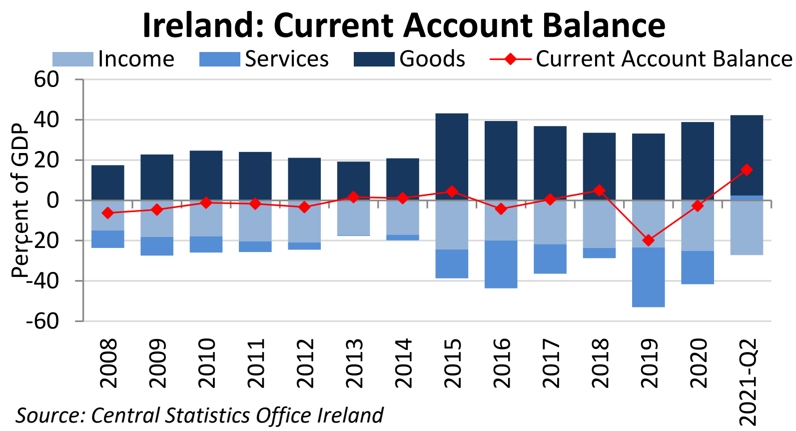
After narrowing somewhat in 2020 due to the impact of the pandemic on global trade, Germany's current account surplus increased to 7.5% for the four quarters through June 2021, as net exports recovered faster than domestic demand. Germany's bilateral goods and services trade surplus with the United States stood at $66 billion for the four quarters through June 2021, up from $63 billion in the same period in 2020. Treasury assesses that in 2020, Germany's external position was stronger than warranted by economic fundamentals and desirable policies, with an estimated current account gap of 3.5% of GDP. The IMF also assesses Germany's external position to be stronger than warranted by medium-term economic fundamentals and desirable policies.

The German government took bold measures in response to COVID-19, including the suspension of the national fiscal rules to allow for new debt issuance. However, Germany still needs to improve revenue forecasting and address chronic spending under-execution, which led to persistent fiscal surpluses pre-pandemic. As recovery advances, the incoming German government should resist returning to fiscal surpluses and continue to deploy its substantial fiscal space, including through structural measures to bolster current activity, reduce the labor tax wedge, strengthen efforts to combat climate change, incentivize innovation, and reinvigorate investment—which would help external rebalancing proceed at a reasonable pace.

Ireland

Ireland has weathered the pandemic relatively well despite having instituted one of the world's most stringent lockdowns. Real GDP expanded by 5.9% in 2020 on the back of continued strong pharmaceutical and information technology sector exports. The economy accelerated further in the first half of 2021, expanding by 16% compared to the first half of 2020, as the rapid vaccine rollout fueled strong consumer spending and construction activity, alongside continued robust exports. Modified domestic demand, an indicator that strips out volatile statistical factors associated with multinational corporations, rose by 8.4% quarter-over-quarter on a seasonally adjusted basis in the second quarter of 2021, (from -5% quarter-over-quarter in the first quarter). This was the second highest quarterly increase on record, second only to the third quarter of 2020, when the economy bounced back following the first lockdown. Starting in July 2021, the government began to roll back restrictions and had planned to remove most of them by the end of October, but a renewed spike infection rates has threatened to reverse the loosening trend.

Government expenditure decreased in the first half of 2021, mainly reflecting the reduced need for COVID-19 support measures including subsidies, employment payment programs, and increased health spending relative to 2020. In the first half of 2021, the budget deficit narrowed to 4.4% of GDP (from 4.9% of GDP in 2020), while public debt increased to 59.1% of GDP in the second quarter of 2021 (from 58.4% of GDP as of end-2020). For the first time in recent years, the Irish central bank has cautioned that inflation will increase this year as energy prices rise and supply bottlenecks persist in some sectors. Meanwhile, the unemployment rate continues to moderate from a high of 28.2% in April 2020. The standard unemployment rate was 6.4% in September, while the adjusted rate (which categorizing those receiving pandemic-related government support as unemployed) was 10.0%.



Source: Central Statistics Office Ireland

As noted in the last Report, Ireland's current account data is increasingly volatile, largely reflecting the high concentration of foreign multinational corporations in Ireland (upwards of 1,500) and balance of payment measurement challenges. Following data revisions, Ireland's current account balance as a share of GDP was -2.7% in 2020 (revised down from 4.8%); however, surging net exports pushed Ireland's current account to a 15.2% of GDP surplus in the four quarters through June 2021, reflecting continued weaker services imports, including sharply lower R&D related intellectual property imports. The United States continues to represent Ireland's most significant export market. Ireland ran an $11 billion goods and services trade surplus with the United States in the four quarters through June 2021, with U.S. goods imports from Ireland outweighing substantial bilateral U.S. services exports. Treasury assesses that in 2020, following revisions to historical data, Ireland's external position was weaker than warranted by economic fundamentals and desirable policies.[17]

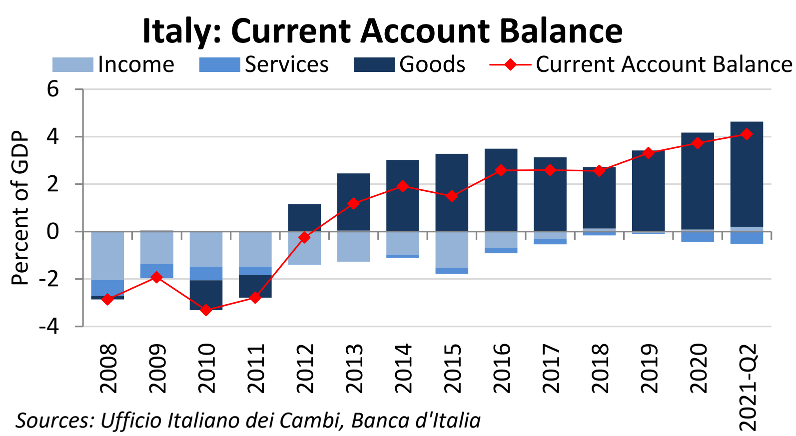
The Irish government's economic policy measures successfully supported the economy since the start of the pandemic, and longer-term policies, including significant fiscal support for the housing sector, will help address structural challenges. Ireland should continue pandemic-related fiscal support as needed and make efficient use of its EU Recovery and Resilience Facility funds to catalyze sustained expansion in the country's

[17] Prior to these revisions, Treasury had assessed that in 2020, Ireland's external position was stronger than warranted by economic fundamentals and desirable policies, with an estimated current account gap of 2.9% of GDP.

domestic economy alongside robust multinational corporate growth. Diversifying revenue sources, including though broadening the tax base, could help improve fiscal sustainability.

Italy

Italy was first among European countries hit by COVID-19 and in 2020 suffered one of the worst growth contractions in Europe. To stem the pandemic, the Italian government imposed lockdowns and other restrictive measures through the fourth quarter of 2020 and into early 2021, resulting in a real GDP contraction of 8.9% in 2020. Despite facing a third wave of COVID-19 in early 2021, the Italian economy has begun to recover, with second quarter growth surpassing expectations at 2.7% quarter-over-quarter (17.3% year-over-year). Though new COVID-19 variants could impact third and fourth quarter growth, the IMF projects Italian real GDP will grow 5.8% in 2021, spurred by increases in domestic demand, public investment, and net exports. To tackle the COVID-19 crisis in 2020, Italy passed four fiscal packages totaling around 6.8% of GDP in direct fiscal stimulus and authorized around 35% of GDP in loan guarantees.[18] This year, Italy has passed two additional fiscal packages amounting to around 4.5% of GDP. As a result of these measures, the fiscal deficit reached 9.5% of GDP in 2020 and is projected to increase to 10.2% of GDP in 2021, increasing Italian government debt—already the second highest in the euro area—to nearly 156% in 2020 and a projected 155% in 2021.



Italy's current account surplus has been broadly stable in recent years and stood at 3.5% of GDP in 2020 (above its 2019 level of 3.2%). For the four quarters through June 2021, Italy's current account surplus was 3.5% of GDP. The United States is Italy's third-highest export destination, and Italy's trade surplus with the United States was $34 billion for the four quarters through June 2021. Treasury assesses that in 2020, Italy's external position was weaker than warranted by economic fundamentals and desirable policies, driven in part by the effect of demographics on national saving.

Italy's persistently anemic growth and pre-pandemic fundamentals highlight the difficult road to economic recovery. In light of the ongoing risks, Italy should continue to provide fiscal support to impacted households and firms as necessary, and once immediate support measures end, should address longer-term structural issues and inequalities. EU-level fiscal support—including Next Generation EU (NGEU) funding—should help Italy recover from the pandemic crisis and provide a foundation for achieving stronger future growth. As part of the NGEU, Italy will receive around $240 billion in grants and loans, and has

[18] As of end-August 2021, Italy has issued around 9.5% of GDP in loan guarantees.

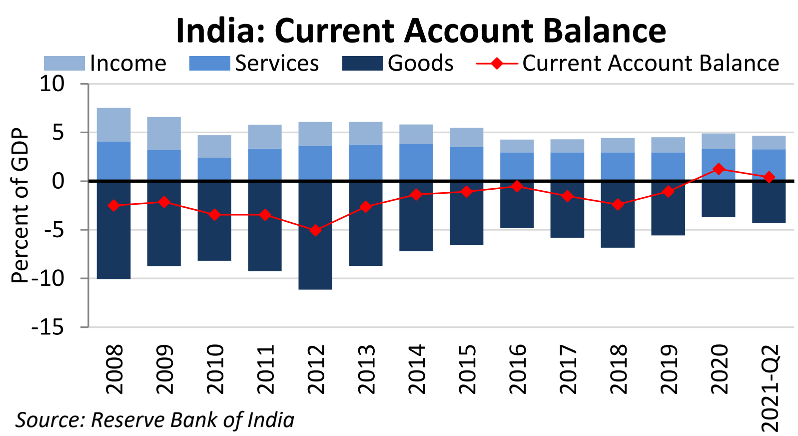
already received its first disbursement of around $31 billion. The crisis has only further demonstrated the need for Italy to undertake fundamental reforms to tackle deep-rooted structural rigidities and boost competitiveness. In that vein, Treasury welcomes the Draghi government's efforts to reform Italy's public administration, judicial system, and tax system to help raise long-term growth.

India

India has battled two outbreaks of COVID-19 since the onset of the global pandemic in March 2020. India's large second outbreak in the second quarter of 2021 weighed heavily on growth, but with cases down significantly from their May peak as of end-October, high-frequency indicators suggest economic activity has been rebounding quickly since early in the third quarter. The pace of vaccination has picked up since mid-June, and 24% of India's population was fully vaccinated as of end-October 2021.

After substantially loosening fiscal policy to respond to the shock from the pandemic, the Indian government projects a 6.8% of GDP fiscal deficit at the central government level in FY 2022 (through March 2022), following a 9.3% of GDP deficit in FY 2021. The Reserve Bank of India (RBI) reduced its policy rate 115 basis points over the first half of 2020, and it has remained at 4.0% since May 2020.

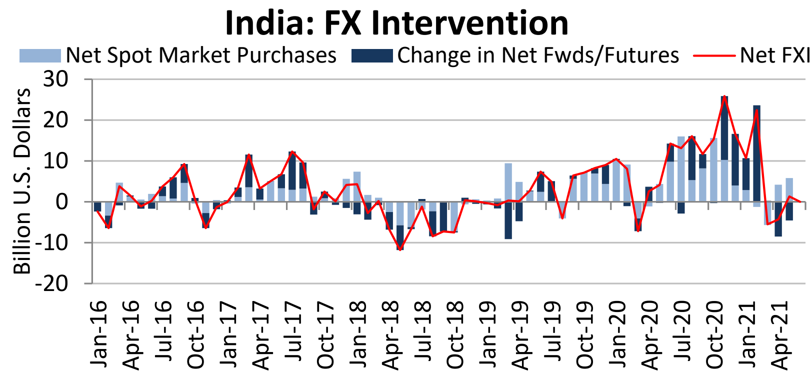
India's current account swung into modest surplus in 2020, a marked departure from the consistent current account deficits recorded since 2004. The recovery in India's import demand prior to the second wave this year pushed the current account back narrowly into deficit in the first half of 2021. Resilient remittance inflows and steady services exports mitigated the size of that deficit. On net, over the four quarters through June 2021, the current account balance stood at 0.4% of GDP. Treasury assesses that India's external position in 2020 was broadly in line with economic fundamentals and desirable policies.



Source: Reserve Bank of India

India's goods and services trade surplus with the United States was $40 billion over the four quarters through June 2021, up substantially from its relatively consistent level of around $30 billion from 2013 to 2019. The higher trade surplus came largely on the back of higher U.S. imports of Indian goods and steady imports of Indian services, while U.S. exports of both fell due to India's weak domestic demand.

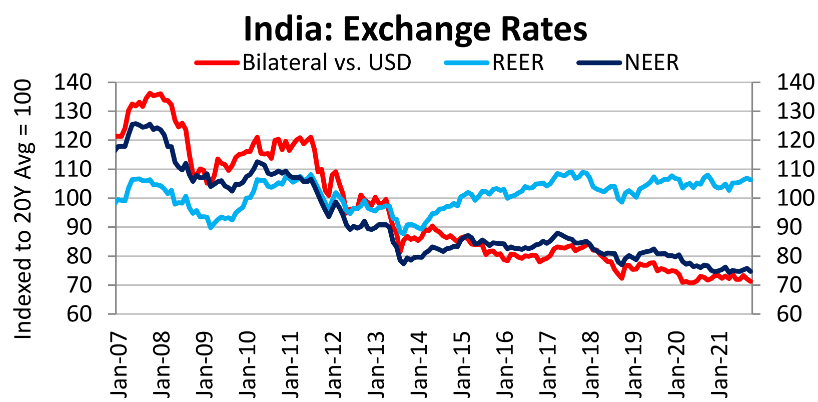
India has been exemplary in publishing its foreign exchange market intervention, both monthly spot purchases and sales and net forward activity, with a two-month lag. While the RBI frequently intervenes in both directions, the RBI purchased foreign exchange on net in 10 of the 12 months through June 2021, with net intervention reaching $131 billion, or 4.6% of GDP. The RBI made large purchases between July 2020 and February 2021, followed by modest sales in March and April this year as India's second outbreak took hold and net foreign portfolio flows turned negative.



Source: Reserve Bank of India

RBI purchases have led to a rapid rise in total reserves. As of June 2021, foreign exchange reserves totaled $569 billion, equivalent to 20% of GDP and 223% of short-term external debt at remaining maturity.[19] Reserves stood near 200% of the IMF's reserve adequacy metric in December 2020 (prior to continued accumulation in 2021), well-above the top end of the IMF's threshold for reserve adequacy.

Like many Asian emerging market currencies, the rupee generally appreciated against the dollar over the second half of 2020 and into early 2021, but subsequently faced depreciation pressures as COVID-19 outbreaks intensified across the region. On net, the rupee stood 2.7% weaker against the dollar over the first ten months of 2021. On a nominal and real effective basis, the rupee strengthened 0.1% and 2.0%, respectively, over the same period.



Sources: FRB, Bank for International Settlements

The authorities should allow the exchange rate to move flexibly to reflect economic fundamentals, limit foreign exchange intervention to circumstances of disorderly market conditions, and refrain from further significant reserve accumulation. As the economic recovery progresses, the authorities should continue to pursue structural reforms that can help lift productivity and living standards, while supporting an inclusive and green recovery.

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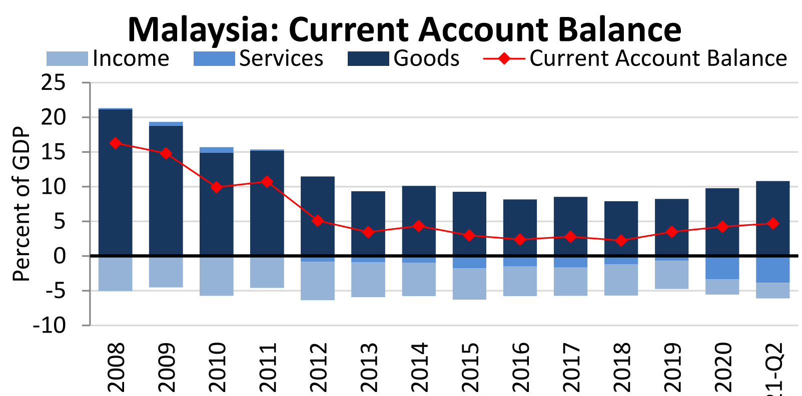
[19] Foreign exchange reserves were equivalent to 555% of short-term external debt at original maturity. Both the remaining maturity and original maturity figures rely on short-term external debt data as of June 2021.

Malaysia

The Malaysian economy was hit hard this year due to a rapid resurgence of COVID-19 cases beginning April 2021. In response to the surge in cases, the authorities reimposed strict nationwide containment measures, while allowing key economic sectors to continue operating. The authorities also accelerated their vaccination efforts and by mid-October had fully vaccinated 90% of all adults. The surge in cases led the authorities to mark down their 2021 GDP growth forecast to 3-4% in August from 6-7.5% previously forecasted in March. They project that the recovery will firm in the latter part of this year and into 2022 driven by stronger global demand, as well as increased private consumption and domestic infrastructure investments.

The authorities have provided substantial policy support to buffer the shock from the pandemic. They initially programmed about $4 billion (1% of GDP) in COVID-19 support as part of the 2021 budget, and subsequently announced about $55 billion (15% of GDP) in additional policy support consisting of approximately 2% of GDP in direct fiscal measures (largely cash transfers and wage subsidies) and 13% of GDP in indirect support measures (e.g., savings withdrawal programs, SME financing guarantees, and loan moratorium and payment reduction measures). After cutting its main policy rate a cumulative 125 basis points over the first seven months of 2020, Bank Negara Malaysia (BNM) has held its policy rate steady at 1.75% since July of last year.

Malaysia has made substantial progress rebalancing its economy from a reliance on external demand toward domestic demand over the past decade. However, Malaysia's current account surplus widened to 4.7% of GDP in the four quarters through June 2021, its highest 12-month rolling total since 2014. This reflects a widening goods trade surplus, as exports recovered faster than imports, on the back of stronger global economic activity. The uptick in Malaysia's goods surplus more than offset its wider services trade deficit as Malaysia's travel sector contracted, while payments for trade and technical services increased.

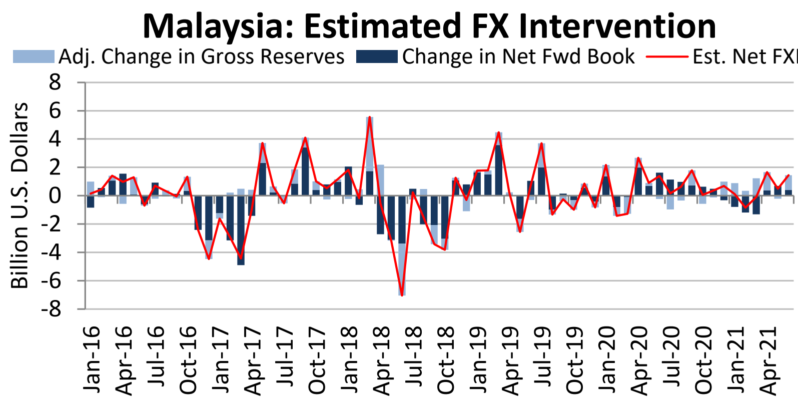


Source: Department of Statistics Malaysia

Treasury assesses that in 2020, Malaysia's external position was stronger than warranted by economic fundamentals and desirable policies, with an estimated current account gap of 1.3% of GDP. The IMF over the last decade has consistently assessed Malaysia's external position to be stronger than the level consistent with medium-term fundamentals and desired policies.

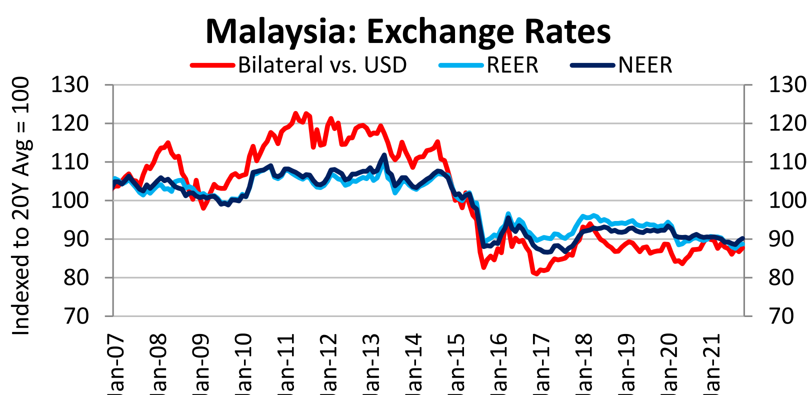
Malaysia's goods and services trade surplus with the United States reached $38 billion in the four quarters through June 2021, led almost entirely by its increasing bilateral goods trade surplus which reached $38 billion amid higher U.S. demand for pandemic-related goods. Malaysia and the United States have strong supply chain linkages, and the bilateral goods trade is driven by supply integration in key industries such as electrical machinery parts, nuclear reactor and boiler parts, and optical and medical instruments. Malaysia engages in relatively limited bilateral services trade with the United States—about $4 billion in the four quarters through June 2021—and has long run a modest services trade deficit, led by U.S. exports of tourism, financial services, and intellectual property, though the services deficit narrowed further over the four quarters through June 2021.

Malaysia does not publish data on its foreign exchange intervention; however, the authorities have conveyed credibly to Treasury that net purchases of foreign exchange over the four quarters through June 2021 were $3.7 billion or 1.0% of GDP. Treasury welcomes this step to increase the transparency of foreign exchange intervention. Foreign exchange reserves stood at around $103 billion in October 2021, up 6% from the year prior, and are broadly adequate according to standard adequacy metrics, including that of the IMF.



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

Like many regional peer currencies, the ringgit faced downward pressure over the first half of 2021 amid a surge in COVID-19 cases and the weakened economic outlook, compounded in Malaysia by domestic political uncertainty. On net, the ringgit depreciated 2.9% against the U.S. dollar over the first ten months of the year and depreciated 0.4% and 1.4% on a nominal and real effective basis, respectively, over the same period.



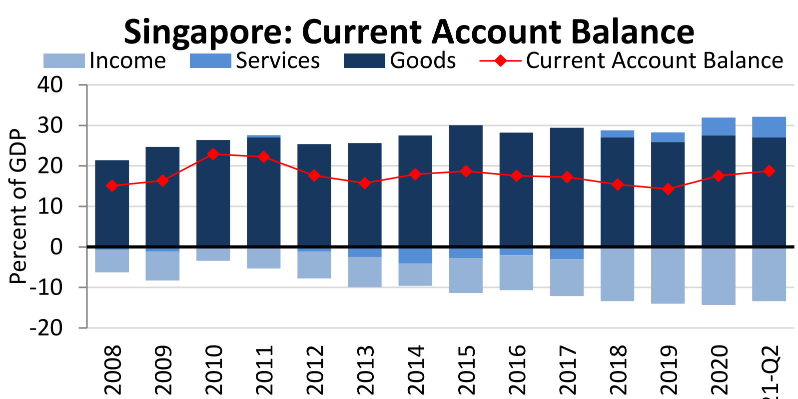
Sources: FRB, Bank for International Settlements

The authorities should continue to provide macroeconomic policy support until a strong, self-sustaining recovery has taken hold. The pandemic has underscored the importance of strong social protection systems, particularly for vulnerable populations, and upgrades to the scale and coverage of Malaysia's social protection system would support external rebalancing while also fostering an inclusive recovery. The authorities should continue to allow the exchange rate to move to reflect economic fundamentals and limit foreign exchange intervention to circumstances of disorderly market conditions, while avoiding excessive accumulation of reserves.

Singapore

Singapore's economy has recovered strongly in 2021, particularly in comparison to other Southeast Asian economies, owing to effective COVID-19 containment measures, a rebound in external demand, and robust domestic consumption. Although Singapore has periodically reimposed strict social distancing measures and travel restrictions over the course of the year in response to increases in COVID-19 cases, with corresponding impacts on economic activity, it also has already fully vaccinated more than 80% of its population. For 2021 as a whole, the authorities, as well as private sector analysts and international financial institutions, have all upgraded Singapore's GDP forecast in recent months. As of October, the IMF forecasts Singapore's real GDP will grow 6.0% in 2021.

Singapore provided substantial fiscal support in response to the pandemic last year, with the headline fiscal deficit reaching 14% of GDP in fiscal year 2020 (end-March 2021). The authorities' fiscal year 2021 budget calls for the deficit to narrow substantially to around 2% of GDP, while including COVID-related spending worth $8 billion (about 2% of GDP) to fund public health measures and support for workers and businesses, as well as small-scale, temporary measures in response to an uptick in COVID-19 cases in May which the authorities plan to fund by reallocating development expenditure from their fiscal year 2021 budget. In March 2020, the Monetary Authority of Singapore (MAS) eased monetary policy by adopting a 0% annual rate of appreciation of its exchange rate policy band and reducing the midpoint of the band to the prevailing nominal effective exchange rate. After keeping monetary policy on hold for 18 months, MAS tightened policy in October by raising slightly the slope of its exchange rate policy band, citing likely above-trend economic growth and accumulating external and domestic cost pressures.



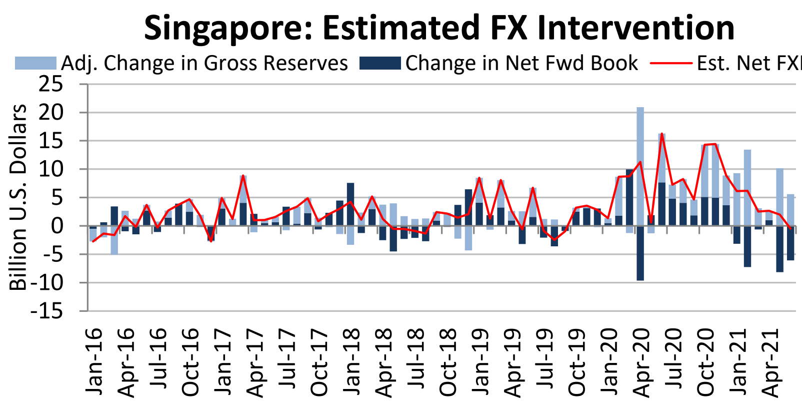
Sources: Monetary Authority of Singapore, Department of Statistics

Singapore's outsized current account surplus averaged 17.3% of GDP over the last decade and ticked up to 18.8% of GDP in the four quarters through June 2021, owing to a narrower primary income deficit. Singapore's services trade surplus remains elevated, reaching 5.2% of GDP in the four quarters through June 2021. Both services imports and exports are still well below pre-COVID-19 levels, with imports registering a larger contraction.

Treasury assesses that Singapore's external position was substantially stronger than warranted by economic fundamentals and desirable policies in 2020, with an estimated current account gap of 6.0% of GDP. The IMF in recent years has consistently assessed Singapore's external position to be substantially stronger than warranted by economic fundamentals and desirable policies.

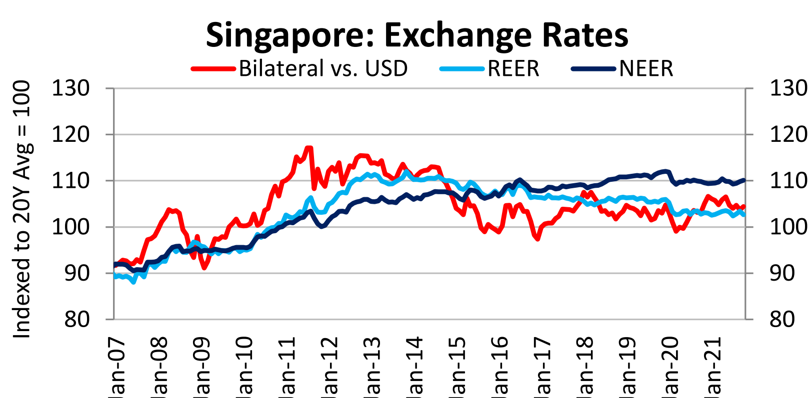
Singapore's bilateral goods and services trade deficit with the United States was $15 billion in the four quarters through June 2021, driven by its relatively large services trade deficit. Singapore has long run a bilateral services deficit with the United States, reaching $14 billion in the four quarters through June 2021. Key U.S. services exports to Singapore include research and development, intellectual property, and professional and management services. Singapore's bilateral goods trade balance returned to a modest $1 billion deficit in the four quarters through June 2021 after registering a surplus in 2020 for the first time in two decades.

MAS uses the nominal effective exchange rate of the Singapore dollar (the S$NEER) as its primary tool for monetary policy and executes its policy by purchasing and selling foreign currency in the foreign exchange market. In April 2021 and October 2021, MAS published data on intervention covering the second half of 2020 and first half of 2021, respectively, indicating total net purchases of $74.5 billion in foreign currency in four quarters through June 2021, equivalent to 20.4% of GDP. Official foreign exchange reserves held by MAS jumped to $409 billion (112% of GDP) at end-October 2021, increasing 22% nominally year-over-year. In addition to the reserves held by MAS, Singapore's government also has access to substantial official foreign assets managed by two sovereign wealth and investment funds, GIC and Temasek.



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

Like many regional peer currencies, the Singapore dollar faced downward pressure over the first half of 2021 amid surging COVID-19 cases across Southeast Asia. On net, the Singapore dollar depreciated 2.0% against the U.S. dollar over the first ten months of the year. Meanwhile, the Singapore



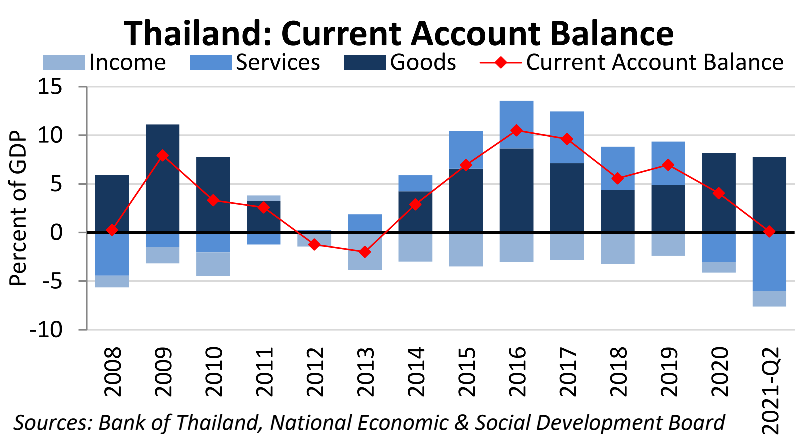
Sources: FRB, Bank for International Settlements dollar appreciated 0.7% on a nominal effective basis and depreciated 0.3% on a real effective basis over the same period.

The authorities should continue to provide macroeconomic policy support until a strong, self-sustaining recovery has taken hold. In light of the large and persistent external imbalances and the public sector's large net asset position, the authorities should loosen fiscal policy on a structural basis and reconsider fiscal policy rules that drive a tighter than warranted fiscal stance across the economic cycle. A sustained expansion in the provision and coverage of social services would help reduce incentives for private saving and support stronger consumption. Reductions in the high rates for mandatory contributions to the government pension scheme and appropriately structured tax policies that support consumption would have similar benefits in strengthening domestically driven growth. Consistent with the government's stated goals, substantial new infrastructure investment could help build resilience to threats from climate change while also supporting greater domestic demand. Further appreciation of the nominal and the real effective exchange rate over the medium term, consistent with economic fundamentals, should also play a role in facilitating external rebalancing.

Thailand

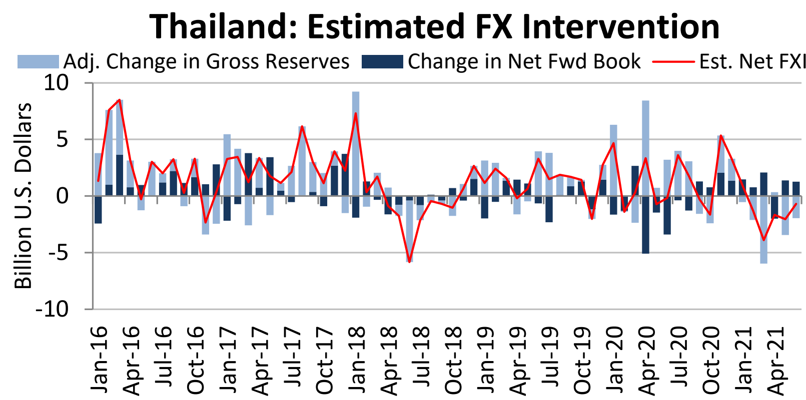
Thailand's economic recovery has been tepid this year following a 6.1% contraction in output last year. A rapid acceleration in local transmission of COVID-19 starting in April 2021 and peaking in mid-August prompted the authorities to impose increasingly stringent restrictions on domestic travel and economic activity. These restrictions have helped to control the spread of the virus but have weighed on domestic demand, while external demand remains subdued due to ongoing disruptions to the tourism sector. In response to these trends, the authorities have accelerated their vaccine procurement timeline, raised the debt ceiling and authorized an additional 3.2% of GDP in government borrowing (on top of 6.4% of GDP in emergency borrowing authorized last year), and extended forbearance for pandemic-affected firms and households struggling to meet debt service obligations. The Bank of Thailand currently projects the economy to expand by 0.7% this year, with growth accelerating to 3.9% in 2022 as activity restrictions ease and tourism recovers.

Thailand recorded a current account surplus of 0.1% of GDP in the four quarters through June 2021, contrasting sharply with the elevated current account surpluses Thailand ran in the five years before the COVID-19 pandemic. This large decline in the current account has been due to a rapid deterioration in the services



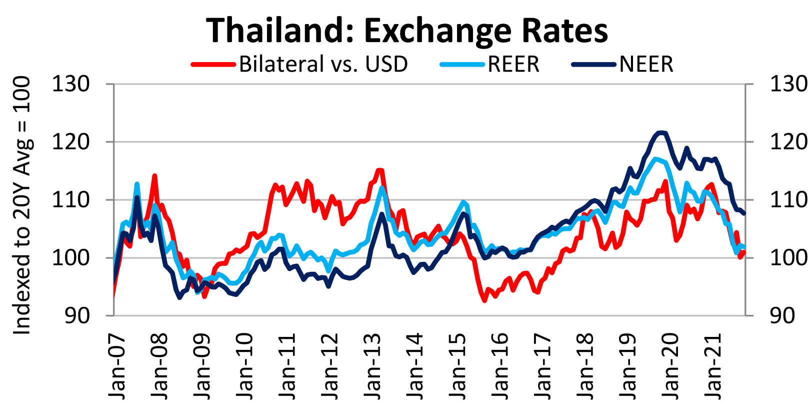
Sources: Bank of Thailand, National Economic & Social Development Board balance, which swung to a deficit of 6.0% of GDP during the four quarters through June 2021 after averaging a surplus of 4.6% of GDP between 2015 and 2019. The steep drop in tourism receipts has been the primary contributor to the swing in the services balance, but rising payments for freight transportation linked to a sharp increase in global freight costs has also contributed. Resilient merchandise exports and sluggish imports caused Thailand's goods trade surplus to expand to 7.7% of GDP during the four quarters through June 2021 from 6.2% of GDP over the prior four quarters, partially offsetting the deterioration of the services balance.

Thailand's bilateral goods and services trade surplus with the United States widened to $30 billion over the four quarters through June 2021, an increase of $8 billion over the preceding four quarters. Thailand's merchandise exports to the United States grew by 22% during this period, led by the sustained growth of electronic and electric equipment exports. During the same period, goods imports from the United States declined by 9%, primarily due to lower Thai imports of U.S. crude oil.



Sources: Bank of Thailand, U.S. Treasury estimates

Thailand intervenes frequently in foreign exchange markets. Intervention activity was skewed heavily toward purchases of foreign currency between 2016 and 2020, a period that generally coincided with appreciation pressures on the baht. In the first half of 2021, as the baht faced sustained depreciation pressure, Treasury estimates that Thailand made net sales of foreign currency. Thailand does not publish data on its foreign exchange intervention; however, the Thai authorities have credibly conveyed to Treasury that net purchases of foreign exchange were 0.08% of GDP over the four quarters through June 2021. That figure is equivalent to about $0.4 billion.



Sources: FRB, Bank for International Settlements

The baht depreciated by 10.0% against the dollar over the first ten months of the 2021, the largest depreciation of any major Asian currency during this period. Over the same period, the baht depreciated by 7.9% and 8.4% on a nominal effective and real effective basis, respectively. The baht's depreciation trend occurred amid the large swing in Thailand's current account, a record surge in resident portfolio capital outflows (facilitated by recent easing of restrictions on resident investment abroad), and a shift in investor sentiment tied to the substantial increase in Thailand's COVID-19 caseload in 2021.

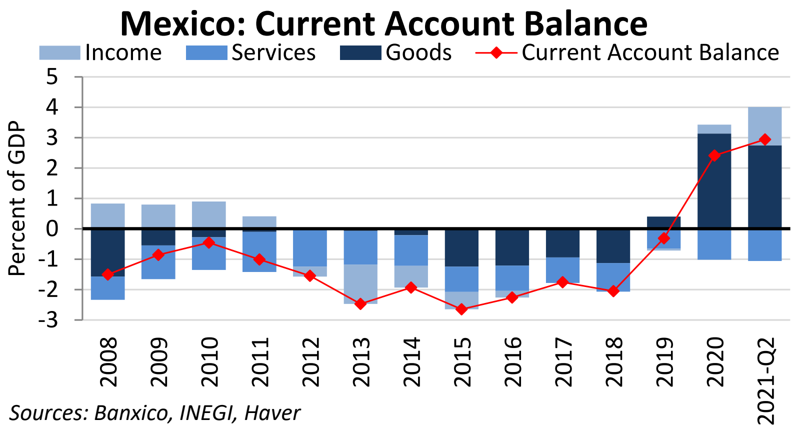
Treasury assesses that Thailand's external position in 2020 was substantially stronger than the level consistent with medium-term economic fundamentals and desirable policies with an estimated current account gap of 4.6% of GDP. Although the exact pace of Thailand's tourism recovery remains highly uncertain, Treasury's estimate of the current account gap assumes that the shocks to Thailand's balance of payments related to the COVID-19 pandemic are largely transitory in nature and will dissipate over the medium term. Treasury will continue to monitor any substantive changes to this outlook.

The authorities should sustain macroeconomic policy support, including fiscal stimulus, until a strong, self-sustaining recovery takes hold, while aiming to raise domestic investment and productivity over the medium term. Thailand should take steps to durably strengthen the social protection system, which may help mitigate incentives for excessive precautionary saving. Thailand should also allow the exchange rate to move flexibly in line with economic fundamentals and avoid sustained, one-sided intervention. The authorities also should focus any future changes to capital flow restrictions on macroprudential and efficiency objectives and avoid using changes to these policies as tools to employ in response to future periods of baht appreciation in line with economic fundamentals.

Mexico

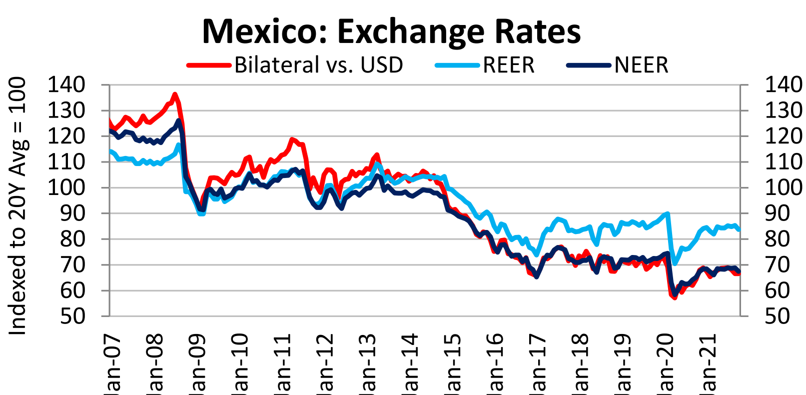
Mexico fell into recession well in advance of the COVID-19 pandemic, with the economy contracting 0.1% in 2019. The pandemic hit Mexico hard and an austere fiscal response contributed to Mexico's deep economic contraction, by 8.3% in 2020, and rising poverty. The IMF estimates that Mexico's fiscal support package totaled less than 1% of GDP, the smallest among the G20 and regional peers, despite modest public debt (61% of GDP in 2020) that is the median among emerging market G20 members. Sticky core inflation that was at the upper end of the Bank of Mexico's (Banxico's) inflation target band of 3±1% during Mexico's pre-pandemic recession has accelerated to 5.2% as of October 2021. The resulting monetary tightening, together with a resurgent COVID-19 outbreak in summer 2021, will further weigh on domestic demand.

The Mexican economy's reliance on external demand has expanded Mexico's current account surplus to historic levels. Relatively strong external demand from the United States cushioned Mexico's exports, while fiscal austerity in Mexico failed to support domestic demand, resulting in import compression. Mexico's goods and services trade surplus was $20 billion (1.7% of GDP) in the four quarters through June 2021; notably, its bilateral goods and services surplus with the United States over the period reached $116 billion, the second largest after China and up 19% from end-2019. In addition to the elevated goods surplus, a record remittance inflow ($45 billion or 3.8% of GDP in the four quarters through June 2021) has driven up the current account surplus, which reached 2.9% of GDP over the same period. Prior to 2020, Mexico had not had a current account surplus since 1987. Once pandemic conditions ease, economic normalization is likely to result in some recovery of domestic demand—and therefore imports—delivering a degree of rebalancing to the current account. Nonetheless, rising informality in labor markets and a deteriorating investment climate will likely weigh on domestic sources of growth, keeping the current account above its long-term average. Treasury assesses that in 2020, Mexico's external position was stronger than warranted by economic fundamentals and desirable policies, with an estimated current account gap of 3.0% of GDP.



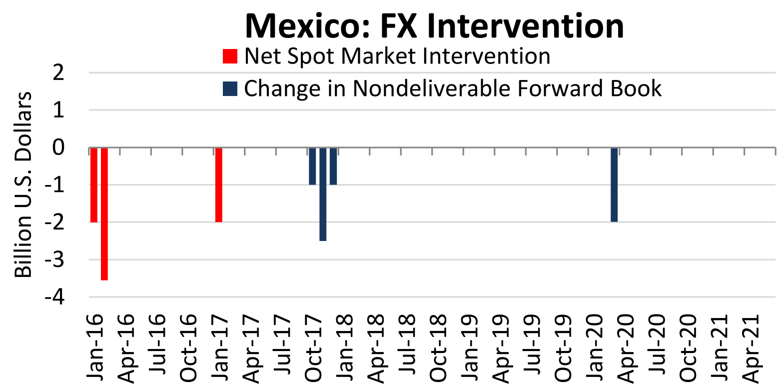
Sources: Banxico, INEGI, Haver

The Mexican peso is a freely traded, global currency that responds flexibly to shifts in global sentiment. The real effective peso has largely tracked Mexico's terms of trade over the past 15 years. After depreciating significantly early in the COVID-19 pandemic, the peso appreciated 16% against the dollar during the second half of 2020 as global risk aversion subsided. Over the first ten months of 2021, the peso depreciated 3.2% against the dollar and has depreciated by 1.4% and 0.4% on a nominal effective and real effective basis, respectively.



Sources: FRB, Bank for International Settlements

Mexico has intervened in foreign exchange markets only minimally since 2017. Almost all of its interventions over the past decade have been foreign exchange sales that have supported (strengthened) the currency. Mexico is very open to capital flows, has refrained from capital flow management measures, and has a highly liquid currency, allowing the peso to act as an important shock absorber for Mexico. As of June 2021, Mexico has $185 billion in foreign exchange reserves, together with $133 billion in available swap and credit lines,[20] to add to its external buffers. In April 2020, Mexico drew on $6.6 billion of its $60 billion swap line with the Federal Reserve and, as of end-August 2021, has repaid $6.5 billion. In its latest External Sector Report, the IMF assessed that Mexico's foreign exchange reserves levels are adequate across a range of metrics, with reserves reaching 128% of the IMF's adequacy metric as of end-2020.



Sources: Banxico, U.S. Treasury estimates

Mexico is timely in publishing its foreign exchange market intervention, disclosing monthly purchases and sales with about a one-week lag and providing intervention data from 1996 onwards. Banxico typically conducts its foreign exchange transactions with the private sector under rules-based, transparent programs to counter volatility or accumulate reserves.[21] The last time Banxico intervened in the spot market was in January 2017, selling $2 billion on the month, and the last intervention in forwards markets was in March 2020, selling $2 billion (non-deliverable), at the height of financial market pressures at the outset of the pandemic. The last time the central bank purchased foreign exchange from the private sector was in October 2011, where net foreign exchange purchases during the year totaled 0.4% of GDP ($4.6 billion). The country's prudent, inflation-targeting monetary policy and flexible exchange rate regime remain crucial pillars of the macroeconomic framework for Mexico's resilience to shocks.

The IMF expects a recovery of 6.2% in real GDP in 2021, which would leave the economy close to 3% below its pre-pandemic peak. Under-investment by the private sector threatens to hamper recovery and reduce long-term growth potential. Mexico's costly support to increase the market dominance of loss-making state energy firms drains public resources for essential spending and discourages investment in renewable energy that would reduce user costs and free fiscal space for more productive investment and social protection. Insofar as net energy exports from the United States to Mexico may decline as a result of Mexico's policy objective of greater fossil fuel independence, Mexico's trade surplus with the United States may increase.

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[20] These comprise a $63 billion IMF Flexible Credit Line, a $60 billion temporary (pandemic) swap line with the Federal Reserve, and swap lines under the North American Framework Agreement (NAFA) with the Federal Reserve and U.S. Treasury of $3 billion and $9 billion, respectively.

[21] See "Reserves Management and FX Intervention in Mexico" by Banxico Deputy Governor Javier Guzmán Calafell, available at https://www.banxico.org.mx/publicaciones-y-prensa/discursos/%7BEA88E47F-8EC7-14F7-9B19-B4649E0EE3E6%7D.pdf.

In-Depth Analysis

Switzerland

Treasury conducted enhanced analysis of Switzerland in its December 2020 and April 2021 FX Reports, and, in early 2021, commenced enhanced bilateral engagement with Switzerland in accordance with the 2015 Act.[22] An in-depth analysis of recent economic developments is provided below, along with an update on Treasury's ongoing enhanced bilateral engagement with the Swiss authorities.

While Switzerland was hit early and hard by the COVID-19 pandemic, economic growth began to improve in the second half of 2020. During the third quarter of 2020, GDP grew the most since 1980, rising 7.2% on a quarterly basis, driven by an increase in consumption and investment in equipment as activity rebounded from COVID-19 related shutdowns. A slow vaccination roll-out led to renewed restrictions to combat COVID-19 at the start of 2021 and a 0.5% quarter-over-quarter contraction in real GDP activity in the first quarter. A relaxation of virus restrictions and strong manufacturing and service sector activity led to a resumption of growth in the second quarter of 2021, with real GDP rising 1.8% quarter-over-quarter.

Reflecting reduced base effects as a result of a less severe economic downturn in 2020 than originally estimated and a slow pace of recovery in international tourism, the Swiss State Secretariat for Economic Affairs (SECO) downgraded its forecast for real GDP growth in 2021 to 3.4%, below the IMF's forecast of 3.7%. SECO now expects the economy to climb above pre-crisis levels in the second half of 2021. However, uncertainty over the outlook remains high given the continued spread of COVID-19 variants.

Government employment assistance has helped to limit unemployment and bolster consumer spending, with the unemployment rate falling to 2.5% in October 2021. Since the beginning of the COVID-19 crisis, the IMF estimates that Switzerland's COVID-19 fiscal response amounted to up to 10% of GDP, including both direct and indirect measures, although less than half of the funds made available have been used thus far. Direct fiscal measures include partial unemployment compensation and aid to affected firms. These were implemented in conjunction with larger indirect fiscal measures in the form of loan guarantees to small and medium-sized enterprises and start-ups, temporary deferral of social security payments for affected companies, and an extension of tax and other payments owed to the federal government. However, the take-up of bridge loans under the federal guarantee program, as well as assistance to the self-employed, has been lower than budgeted.

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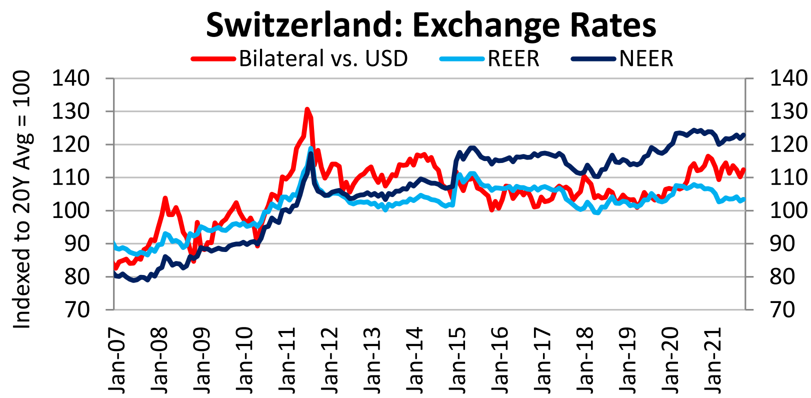
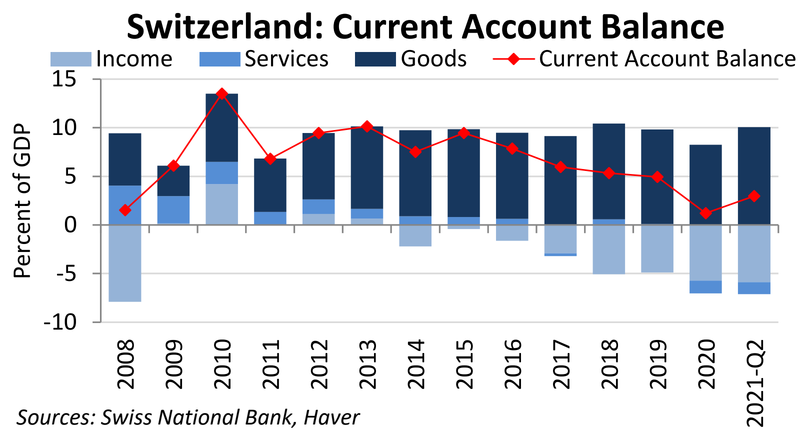
[22] *Report to Congress: Macroeconomic and Foreign Exchange Policies of Major Trading Partners of the United States*, U.S. Department of the Treasury, Office of International Affairs, pp. 48-55 (Dec. 2020), available at https://home.treasury.gov/system/files/206/December-2020-FX-Report-FINAL.pdf, and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

Robust global risk appetite that diminished the safe-haven capital demand for Switzerland's assets this year likely drove the performance of the franc versus the dollar and euro. Over the first ten months of 2021, the Swiss franc depreciated 3.5% against the dollar and appreciated 2.1% against the euro. On a nominal effective and real effective basis, the Swiss franc depreciated by 0.8% and 3.1%, respectively, over the same period.



Sources: FRB, Bank for International Settlements

Switzerland has for many years run large current account surpluses, but the surplus declined significantly to 1.2% of GDP in 2020 (revised down from 3.8% of GDP in September of this year) due to lower goods and services surpluses and a larger decline in investment income receipts relative to expenses as a result of the better performance of the Swiss economy versus the rest of the world. In the four quarters through June 2021, the current account surplus rebounded to 2.95% of GDP, and the IMF projected a 7.2% of GDP current account surplus for 2021 before the publication of the September balance of payments revisions. Foreign trade has bolstered the current account, with an increase in foreign demand for watches and precious metals, particularly from China. Switzerland's historically tight fiscal policy has also contributed to its large and persistent current account surpluses. Even with relatively large announced fiscal stimulus, Switzerland's general government deficit only reached 2.8% in 2020 (significantly smaller than in neighboring countries) and the IMF expects it to narrow to 2.1% in 2021. Failure of the June 13 referendum on the CO_2 law, which would have helped Switzerland to cut CO_2 emissions, also limits the potential for an increase in fiscal spending to meet climate targets in the near term.



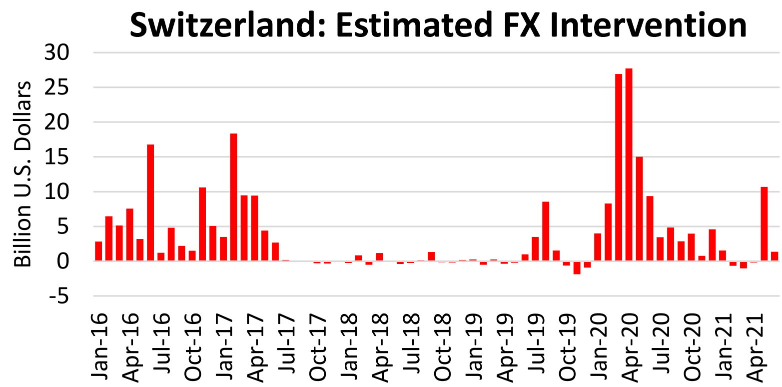
Sources: Swiss National Bank, Haver

Other structural factors also 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 net international investment position (NIIP), for which returns further raise the income balance. Even after accounting for the frequently large downward revisions due to changes in investment income and services trade, Switzerland's current account surplus, as reported by the Swiss National Bank (SNB), has averaged more than 7% of GDP since 2010. Since the global financial crisis, the composition of the current account has evolved, with the primary income and services trade surpluses declining and the goods surplus expanding due to merchanting and the pharmaceutical sector.

The significant downward revisions to Swiss data, particularly the September 2021 revisions to services trade data, present challenges in assessing consistently Switzerland's external balance. Taking into account these revised data, Treasury assesses that in 2020, Switzerland's external position was weaker than warranted by economic fundamentals and desirable policies, with an estimated current account gap of -1.3%. However, prior to these revisions, Treasury assessed that in 2020 Switzerland's external position was stronger than warranted by economic fundamentals and desirable policies, with an estimated current account gap of 1.2% of GDP. These differing assessments suggest a divergence between the revised current account data and Switzerland's economic fundamentals and its current macroeconomic policy stance, which would imply larger current account surpluses. Similar divergences have been noted by the IMF. The IMF's external sector assessment of Switzerland for 2020 — which was published prior to the September 2021 data revision — noted that the external position in 2020 was broadly in line with the level implied by medium-term fundamentals and desirable policies. This was based on a holistic assessment that took into account both model-based estimates, which would have suggested a weaker position than implied by fundamentals, and also the continued strength of Switzerland's external balance sheet and its macroeconomic policy mix. IMF staff also noted that the change from the previous assessment, in which the external position was judged to be moderately stronger, is subject to high uncertainty related to recent large downward statistical revisions to historical current account balances. IMF staff stress that it will be necessary to distinguish transitory and COVID-19–related effects from structural impacts, with data and time necessary to assess the durability of the downward shift in the external accounts.

In the four quarters ending in June 2021, Switzerland's bilateral goods and services trade surplus with the United States stood at $25 billion. During the same period, Switzerland's goods trade surplus with the United States reached $43 billion, versus $49 billion over the same period one year ago and $57 billion in 2020. Switzerland maintains a large goods trade surplus with the United States, but this traditionally has been mirrored largely by a services trade deficit. The unusually large increase in the goods surplus in 2020 can be partially attributed to a surge of private Swiss gold exports to the United States as the COVID-19 pandemic worsened and U.S. investors increased gold bullion purchases in the first half of 2020. Notably, Swiss gold exports to the United States in 2020 jumped to $15.4 billion from $1.2 billion in 2019. However, over the four quarters through June 2021, Swiss gold exports to the United States stood at $4.7 billion, down from $12.8 billion recorded over the same period in the previous year. Over the four quarters through June 2021, Switzerland's bilateral services trade deficit with the United States stood at $18 billion, down slightly from $20 billion over the same period in 2020. In most recent years, the United States' trade deficit with Switzerland was closer to balance when including services data, except for 2020.

The SNB has maintained negative interest rates since the start of the COVID-19 pandemic to limit franc appreciation and combat deflationary risks. As an issuer of a global reserve currency, Switzerland experienced intensified pressure from safe-haven inflows in the first half of 2020 as a result of the COVID-19 crisis. The SNB responded by massively increasing its intervention in foreign exchange markets in the spring of 2020 to stem franc appreciation and deflationary pressure.



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

In September 2020, the SNB announced it would start reporting the volume of foreign exchange market operations on a quarterly basis (compared to its previous annual disclosure). With the exception of May 2021, the SNB's net foreign exchange purchases have broadly moderated since the onset of the pandemic in early 2020. Net foreign exchange purchases in 2020 amounted to $115 billion, or 15.3% of GDP. Based on the SNB's published intervention figures, SNB intervention amounted to $28 billion, or 3.5% of GDP, in the four quarters through June 2021. The SNB's balance sheet and foreign exchange reserves have increased significantly since the global financial crisis as a result of the SNB's monetary policy actions. Between 2007 and 2020, the SNB's balance sheet expanded significantly from 21% of GDP to nearly 145% of GDP, mainly through foreign asset purchases, making it one of the largest central bank balance sheets in the world relative to GDP. By the end of June 2021, Switzerland's foreign currency reserves stood at $1 trillion, up from $896 billion at end-June 2020. More recently, reserves covered 82% of short-term debt and 129% of GDP as of end-June 2021.

In its September 23, 2021 monetary policy assessment, the SNB announced that it maintained its main policy rate at -0.75% to foster price stability and support Swiss economic recovery. Switzerland's inflation declined to -0.7% in 2020 (making 2020 the sixth year since 2009 that Switzerland experienced deflation), but the SNB's inflation outlook has improved due to a weaker franc, global inflationary pressures, and stronger domestic conditions. The SNB projects inflation to reach 0.5% in 2021 and 0.7% in 2022, remaining well below its 2% ceiling.

Since early 2021, Treasury has been conducting enhanced bilateral engagement with Switzerland in accordance with the 2015 Act. As part of this process and consistent with the 2015 Act, Treasury is discussing with the Swiss authorities policy options to address the underlying causes of Switzerland's external imbalances.

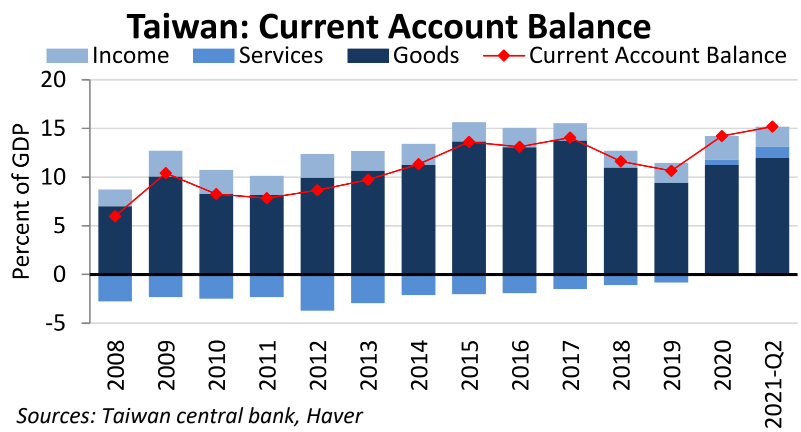
Enhanced Analysis Under the 2015 Act

Taiwan

Treasury conducted enhanced analysis of Taiwan in its April 2021 FX Report.[23] A summary of recent economic developments is provided below, along with an update on Treasury's ongoing enhanced bilateral engagement with the Taiwanese authorities.

Taiwan has weathered the COVID-19 pandemic relatively well, avoiding severe lockdowns for most of 2020 and early 2021, though an outbreak starting in mid-May 2021 led to tighter restrictions. The authorities have since brought the outbreak under control, partly through a robust vaccination campaign, and health officials have been gradually easing restrictions since late-July. After increasing 3.2% year-over-year in 2020, real GDP grew 9.4% year-over-year in the first quarter before moderating 7.4% year-over-year in the second quarter as the COVID-19 outbreak weakened activity during the May-August period. The authorities responded to the slowdown by passing a third special budget for pandemic relief ($9.3 billion, or roughly 1.3% of GDP) in July 2021, bringing cumulative pandemic related fiscal measures to $53.8 billion (7.4% of GDP).

Taiwan's current account surplus was 15.2% of GDP ($111.2 billion) in the four quarters ending in June 2021. Taiwan's surplus over this period was largely driven by Taiwan's $41.2 billion goods trade surplus (11.1% of GDP), with exports surging in the second quarter of 2021. Global supply chain shifts and the ongoing global semiconductor shortage continue to boost Taiwan's semiconductor industry, with semiconductor exports increasing 30% year-over-year in June. Growth in non-tech exports was also strong and broad-based in the first half of 2021. Meanwhile, overall goods imports increased to $168 billion in the first half of the year (45% of GDP in the first half of 2021) as imports rose on rising prices and increased domestic capital spending by Taiwanese firms. Treasury assesses that in 2020, Taiwan's external position was substantially stronger than warranted by economic fundamentals and desirable policies, with an estimated current account gap of 7.0%.



Sources: Taiwan central bank, Haver

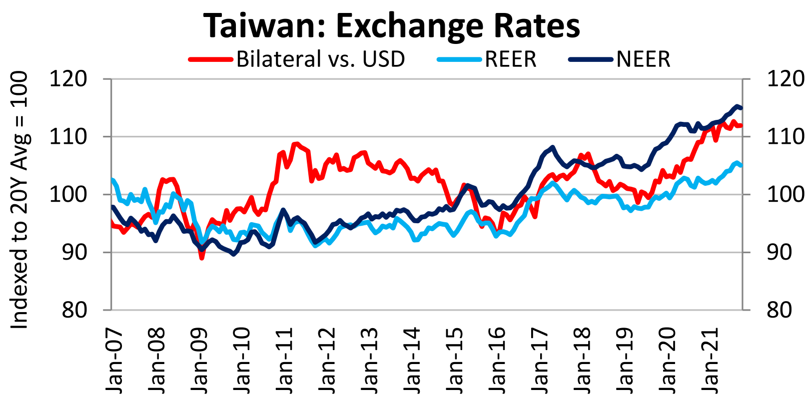
Taiwan's services deficit had gradually narrowed from $10.8 billion (2.0% of GDP) in 2015 to $5.1 billion (0.8% of GDP) in 2019. However, the COVID-19 pandemic led to the collapse

[23] *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. 40-46 (April 2021), available at https://home.treasury.gov/system/files/206/April_2021_FX_Report_FINAL.pdf.

of outbound tourism, and the services balance shifted to a surplus of $3.8 billion (0.6% of GDP) in 2020. Over the first half of 2021, the services surplus widened to $5.3 billion (1.4% of GDP) as a modest recovery in services exports (particularly in freight transportation and information technology services) outstripped continued weak services imports.

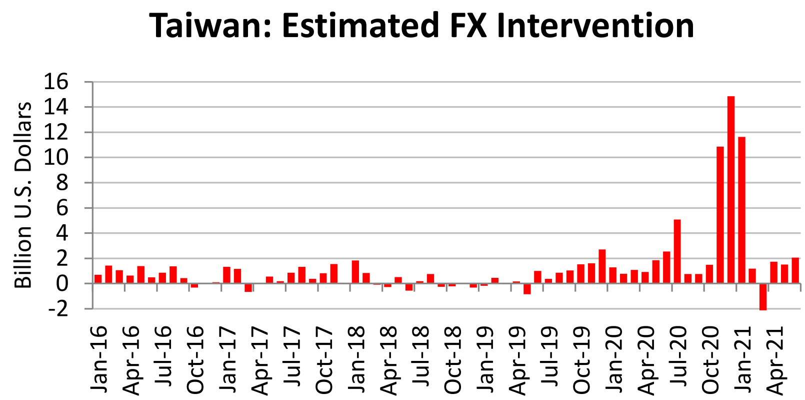
Strong U.S. demand for Taiwan's semiconductors and other electronic goods exports also led to a record bilateral goods surplus of $34 billion. Taiwan runs a small bilateral services deficit of $2 billion with the United States, largely driven by charges for the use of intellectual property.

Taiwan's exchange rate came under sustained appreciation pressure for most of the first half of 2021, as Taiwan's robust export growth and unexpectedly strong economic growth attracted capital inflows, and as Taiwan's central bank scaled back its foreign exchange intervention in February. Over the first ten months of the year, the New Taiwan Dollar (TWD) appreciated 0.9% on a bilateral basis against the U.S. dollar, while appreciating by 3.2% and 3.1% on a nominal effective and real effective basis, respectively.



Sources: FRB, Bank for International Settlements

The stated policy of the central bank is to maintain a "managed float" exchange rate policy, in principle determined by market forces but with flexibility to maintain an orderly foreign exchange market. After conducting total net foreign exchange purchases of $39.1 billion (5.8% of GDP) in 2020, the central bank has significantly scaled back its intervention thus far in 2021. Over the four quarters through June 2021, the central bank publicly disclosed net foreign exchange purchases of $43.9 billion (6.0% of GDP), with $8.7 billion in net foreign exchange purchases taking place in the first half of 2021. Taiwan publishes its data on foreign exchange intervention on a semi-annual basis, with a three-month lag.



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

In April 2021, Treasury commenced enhanced bilateral engagement with Taiwan in accordance with the 2015 Act. As part of this process, and consistent with the 2015 Act, Treasury is working with Taiwan's authorities to develop a plan with specific actions to address the underlying causes of Taiwan's currency undervaluation and excessive external surpluses.

Vietnam

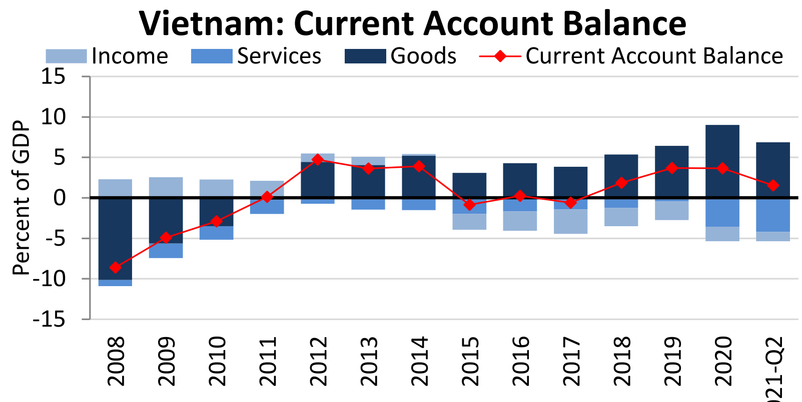
Treasury conducted enhanced analysis of Vietnam in its December 2020 and April 2021 FX Reports and, in early 2021, commenced enhanced bilateral engagement with Vietnam in accordance with the 2015 Act.[24] As a result of discussions through the enhanced engagement process, Treasury and the State Bank of Vietnam (SBV) reached agreement in July 2021 to address Treasury's concerns about Vietnam's currency practices. Treasury continues to engage closely with the SBV to monitor Vietnam's progress in addressing Treasury's concerns and is thus far satisfied with progress made by Vietnam.

Throughout 2020 and the first quarter of 2021, Vietnam had managed to keep its COVID-19 caseload under control and did not experience the same severe economic disruptions as many peers. Vietnam's GDP growth was 2.9% in 2020, one of the few countries to see a positive growth rate amid the global pandemic. Between April and October 2021, however, the COVID-19 caseload surged. The authorities responded with strict containment measures and movement restrictions, which disrupted production in Vietnam's southern manufacturing hubs, intensifying concerns about global supply chains. The region is an increasingly important node in global supply chains for electrical and electronics components, machinery, textiles, apparel, and furniture. The IMF projects real GDP will grow by 3.8% in 2021 despite these headwinds, though recovery will largely depend on the pace of vaccinations and success in containing transmission of the Delta variant.

[24] *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 *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. 47-50 (Apr. 2021), available at https://home.treasury.gov/system/files/206/April_2021_FX_Report_FINAL.pdf.

The Vietnamese government has provided support to cushion the pandemic's economic impact over the past two years. Following an accommodative fiscal policy in 2020 when the authorities introduced a fiscal and credit support package of about 4% of GDP, the government's original 2021 budget entailed a roughly neutral fiscal impulse position. However, as the global pandemic continued to weigh on various sectors, particularly the tourism industry, and Vietnam subsequently facing a more significant domestic COVID-19 outbreak, the authorities adopted additional supplemental fiscal assistance packages in April and July that totaled more than 2% of GDP. The SBV has supported economic activity by holding steady its benchmark policy rate at 4% since October 2020 and continuing to grant forbearance through December 2021 on loans that were negatively impacted by the pandemic.

The hit to manufacturing and exports from the pandemic has been increasingly apparent in Vietnam's balance of payments this year. In the four quarters through June 2021, Vietnam ran a current account surplus of 1.6% of GDP, a substantial narrowing from the 4.0% of GDP surplus that Vietnam ran in the four quarters through June 2020. The primary driver of the decline in the current account is the moderation of Vietnam's goods trade surplus during the first two quarters of 2021. As noted previously, many exporters began to face interruptions to manufacturing operations due to COVID-19 cases in the first half of 2021, while domestic demand began to recover. During the first half of 2021, the rapid increase in imports (36% year-over-year) outpaced the expansion of exports (29% year-over-year) primarily reflecting sharp increase in import prices. Vietnam ran a trade deficit for five straight months from April through August 2021.



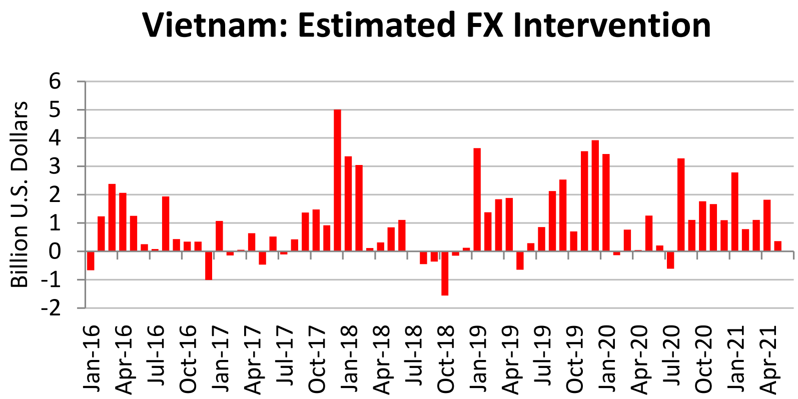
Sources: IMF BOP statistics, State Bank of Vietnam

Vietnam's services trade deficit has generally narrowed in recent years. The pandemic, however, dramatically reversed this trend, leading to a collapse in tourism and sharp reduction in Vietnam's services exports. The overall services trade deficit expanded to $16 billion in the four quarters through June 2021, a sharp increase from the $5 billion services trade deficit in the previous four quarters. The primary and secondary income balance remained relatively stable compared to previous years, and remittance inflows proved resilient amid the pandemic.

Notwithstanding the recent narrowing of the current account surplus, Treasury assesses that in 2020 Vietnam's external position was stronger than warranted by economic fundamentals and desirable policies, with an estimated current account gap of 2.1% of GDP.

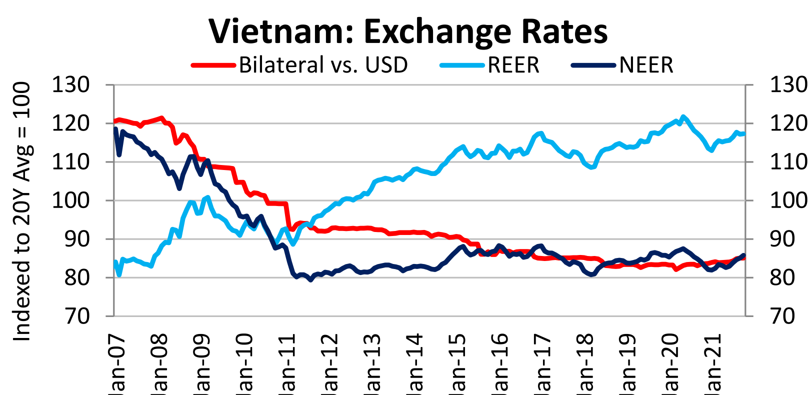
Vietnam's bilateral trade with the United States has grown significantly in recent years. This expansion has been primarily propelled by goods trade. In the four quarters through

June 2021, the bilateral goods trade surplus reached $84 billion, compared to $58 billion in the four quarters through June 2020. Vietnam is now the third largest net exporter of goods to the United States. The pandemic has accelerated the shift of exports to high-tech products in general, and U.S. demand has been particularly strong for computers, electronics, phones, and machinery, where imports from Vietnam grew by 36% in 2020 and 59% year-over-year in the first six months of 2021. Vietnam has limited bilateral services trade with the United States and has long run a small bilateral services trade deficit. In the four quarters through June 2021, that services deficit was $1.6 billion.



Sources: State Bank of Vietnam, U.S. Treasury estimates

Vietnam does not publish data on its foreign exchange intervention. The authorities have conveyed credibly to Treasury that net purchases of foreign exchange in the four quarters through June 2021 were $18.1 billion, or about 5.1% of GDP. Treasury estimates show that the SBV steadily purchased foreign exchange in the second half of 2020, while purchases in 2021 were concentrated at the beginning of the year in January and February and have largely tapered off since then. Headline foreign exchange reserves increased about $16 billion over the 12 months through June 2021 to reach $100 billion. The IMF has assessed that foreign exchange reserves at the end of 2020 were within the IMF's range for reserve adequacy.



Sources: Vietcombank, JP Morgan

Since January 2016, the SBV's exchange rate policy has been to permit the dong to float +/- 3% against the U.S. dollar relative to the central reference rate of the trading band. The central reference rate is reset daily based on the movements of a basket of currencies, among other factors. While the dong bilateral spot rate against the dollar was relatively stable throughout the second half of 2020, it has appreciated about 2.1% against the dollar in 2021 as of mid-November. On net, the dong appreciated 4.6% and 3.3% year-to-date through the first ten months of the year on a nominal effective basis and real effective basis, respectively.

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 (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 exchange rates and externally-oriented 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 establishes a process to engage economies that may be pursuing unfair practices and impose penalties on economies that fail to adopt appropriate policies within a year of the commencement of such 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 June 2021, unless otherwise noted) are provided in Table 1 (p. 17) and Table 2 (p. 53).

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 more than 80% of U.S. trade in goods and services over the four quarters through June 2021. This includes all U.S. trading partners whose bilateral goods and services surplus with the United States exceeded $15 billion over the same period.

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 June 2021.[25] 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 June 2021. 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 focus on goods trade.

[25] 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.

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)	2020 GERAF CA Gap (% of GDP) (2d)	Goods and Services Surplus with United States (USD Bil., Trailing 4Q) (3)
China	0 — 1.7 **	6 — 278	No	**2.1**	1.5	340	**1.7**	**318**
Canada	0.0	0	No	-0.4	2.4	-7	-4.0	5
Mexico	0.0	0	No	**2.9**	4.7	35	**3.0**	**116**
Japan	0.0	0	No	**3.5**	-0.6	178	**1.4**	**57**
Germany	0.0	0	No	**7.5**	-0.9	308	**3.5**	**66**
United Kingdom	0.0	0	No	-2.3	1.3	-70	-2.5	-17
Korea	1.0	17	Yes	**5.7**	1.2	101	**-2.7**	**19**
Ireland	0.0	0	No	**15.2**	0.3	72	**-3.9**	11
Switzerland *	**3.5**	28	**Yes**	3.0	-3.9	23	-1.3	**25**
India	**4.3**	123	**Yes**	0.4	2.2	11	0.5	**40**
Taiwan	**6.0**	44	**Yes**	**15.3**	1.3	111	**7.0**	**32**
Netherlands	0.0	0	No	**8.9**	-1.7	88	**0.5**	-25
Vietnam	**5.1** ***	18	**Yes**	**1.6**	-0.7	6	**2.1**	**82**
France	0.0	0	No	-1.2	-0.3	-34	-1.3	**20**
Singapore	**20.4**	75	**Yes**	**18.8**	2.9	69	**6.0**	-15
Italy	0.0	0	No	**4.1**	1.5	84	**-1.2**	**34**
Brazil	-1.5	-22	No	-1.3	0.6	-19	-0.4	-22
Malaysia	1.0 ***	4	Yes	**4.7**	1.8	17	**1.3**	**38**
Belgium	0.0	0	No	1.8	1.3	10	-4.9	-8
Australia	0.3	5	No	**3.3**	6.1	51	**1.0**	-22
Thailand	0.1 ***	0	No	**0.1**	-8.5	0	**4.6**	**30**
Memo: Euro Area	0.0	0	No	2.9	-0.8	401	-0.1	**118**

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.

* Switzerland's current account surplus during the four quarters ending June 2021 totaled 2.95% of GDP.

** 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 the net foreign exchange settlements data, it 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 June 2021.

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)
China	684	630	55	318	338	-19	4.1	3.8	0.3	1.9	2.0	-0.1
Canada	678	598	80	5	27	-22	36.8	32.5	4.3	0.3	1.5	-1.2
Mexico	659	615	45	116	121	-5	55.4	51.6	3.8	9.7	10.1	-0.4
Japan	263	197	66	57	62	-5	5.1	3.8	1.3	1.1	1.2	-0.1
Germany	249	188	61	66	64	2	6.1	4.6	1.5	1.6	1.6	0.0
United Kingdom	227	112	115	-17	-7	-11	7.5	3.7	3.8	-0.6	-0.2	-0.4
Korea	172	143	29	19	26	-8	9.8	8.1	1.6	1.1	1.5	-0.4
Ireland	164	79	85	11	57	-46	34.5	16.6	18.0	2.3	12.0	-9.7
Switzerland	159	88	71	25	43	-18	20.0	11.1	9.0	3.1	5.4	-2.3
India	138	95	43	40	29	11	4.8	3.3	1.5	1.4	1.0	0.4
Taiwan	117	101	17	32	34	-2	16.1	13.9	2.3	4.5	4.7	-0.3
Netherlands	111	77	34	-25	-19	-5	11.3	7.8	3.4	-2.5	-2.0	-0.5
Vietnam	107	105	2	82	84	-2	30.4	29.7	0.7	23.2	23.7	-0.4
France	104	74	29	20	21	-1	3.6	2.6	1.0	0.7	0.7	0.0
Singapore	96	60	37	-15	-1	-14	26.3	16.3	10.0	-4.1	-0.2	-3.9
Italy	86	77	10	34	35	-1	4.2	3.7	0.5	1.6	1.7	-0.1
Brazil	82	64	18	-22	-13	-9	5.5	4.2	1.2	-1.4	-0.8	-0.6
Malaysia	69	65	4	38	38	0	19.1	18.1	1.0	10.5	10.6	-0.1
Belgium	60	52	9	-8	-9	0	10.5	9.0	1.5	-1.5	-1.5	0.0
Australia	58	38	20	-22	-12	-10	3.8	2.5	1.3	-1.4	-0.8	-0.6
Thailand	57	54	3	30	31	-1	11.1	10.5	0.6	5.7	6.0	-0.3
Memo: Euro Area	885	627	258	118	177	-59	6.3	4.5	1.8	0.8	1.3	-0.4

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

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 current account "gap" of at least 1 percentage point of GDP to be "material" for the purposes of enhanced analysis. Highlighted in red in column 2a and 2d of Table 2 are the 14 economies that met these thresholds over the four quarters through June 2021. Box 2 below summarizes how Treasury estimates current account gaps. In the aggregate, these 14 economies accounted for roughly 75% of the value of global current account surpluses over the four quarters through June 2021. 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.

In the case of estimating current account gaps in 2020, Treasury applied one-off, multilaterally consistent adjustments to its estimates to assess more accurately an economy's underlying current account given the uneven impacts of the pandemic on external balances. These adjustments include controlling for the effects of abrupt shifts in external flows such as tourism and remittances experienced over the course of the pandemic. Such adjustments to control for the COVID shock are necessary for providing more intuitive estimates of excess imbalances.

Box 2: Treasury's Global Exchange Rate Assessment Framework

To analyze excess external imbalances, Treasury uses its Global Exchange Rate Assessment Framework (GERAF). GERAF is a flexible tool developed by Treasury and builds on a substantial body of literature and applied practices for assessing imbalances.

GERAF provides a rigorous, multilaterally consistent method for assessing external imbalances, exchange rate misalignment, and the role of policy in contributing to both. GERAF employs an econometric model to estimate current account balances using a wide range of determinants including cyclical factors, macroeconomic and structural fundamentals, demographics, and macroeconomic policies. GERAF can then assess excess imbalances by comparing cyclically adjusted current account balances against current account "norms," or what GERAF estimates current account balances should be when each of the macroeconomic policies in the model are set to "desirable levels." Treasury calibrates these "desired levels" for each year in line with Treasury's view of the policies that will achieve strong, sustainable, and balanced growth over the medium term (reflecting appropriate domestic and external balances for all countries). The difference between the observed cyclically adjusted current account and its norm, or current account gap, identifies when a trading partner's current account is stronger or weaker than warranted.

Treasury considers current account gaps greater than or equal to 1% of GDP to reflect stronger-than-warranted current account balances. Conversely, Treasury considers current account gaps less than or equal to -1% of GDP to reflect weaker-than-warranted current account balances. Treasury considers current account gaps between -1% and

1% of GDP to reflect current account balances in line with economic fundamentals and desirable policies.

While this Report monitors current account balances on a quarterly basis, Treasury's assessments of current account gaps are made at the annual level due to the limited availability of quarterly data across economies and variables in the model.

Further detail can be found in the GERAF methodology paper, available on Treasury's website.[26]

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.[27] Columns 1a and 1c in Table 2 provide Treasury's assessment of this criterion.[28] In economies where foreign exchange interventions are not published, Treasury uses estimates of net purchases of foreign currency as a proxy for intervention. Highlighted in red in column 1a and 1c are the five major trading partners that met this criterion for the four quarters through June 2021, per Treasury estimates.

Summary of Findings

Pursuant to the 2015 Act, Treasury finds that Taiwan and Vietnam met all three criteria for enhanced analysis in the current review period of the four quarters through June 2021 based on the most recent available data. Switzerland, which had met all three criteria for enhanced analysis in the two preceding Reports, met two of the three criteria for enhanced analysis under the 2015 Act. Additionally, eleven major trading partners met two of the three criteria for enhanced analysis under the 2015 Act in this Report or in the April 2021 Report. **These twelve economies—China, Japan, Korea, Germany, Ireland, Italy, India, Malaysia, Singapore, Thailand, Mexico, and Switzerland—constitute Treasury's Monitoring List.**

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[26] Available at https://home.treasury.gov/system/files/206/Global-Exchange-Rate-Assessment-Framework-Methodology.pdf.

[27] 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.

[28] 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.

- China has met one of the three criteria in every Report since the October 2016 Report, having a significant bilateral trade surplus with the United States, with this surplus accounting for a disproportionate share of the overall U.S. trade deficit. China met two criteria in this Report for the first time since the April 2016 Report (the initial Report based on the 2015 Act), having a material current account surplus and a significant bilateral trade surplus with the United States.
- Japan and Germany have met two of the three criteria in every Report since the April 2016 Report, having material current account surpluses combined with significant bilateral trade surpluses with the United States.
- Korea has 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. While Korea's bilateral trade surplus with the United States briefly dipped below the threshold in 2018, it rose back above the threshold in 2019.
- Italy and Malaysia have 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 met two of the three criteria in the January 2020 Report, having a material current account surplus and a significant bilateral trade surplus with the United States. Switzerland previously was included on the Monitoring List in every Report between October 2016 and October 2018, having a material current account surplus and engaged in persistent, one-sided intervention in the foreign exchange market. Based on the available data at the time of each Report's release, Switzerland met all three of the criteria in the April 2021 Report and the December 2020 Report. Switzerland met two of the three criteria in this Report, having a significant bilateral trade surplus with the United States and engaging in persistent, one-sided intervention over the reporting period.
- Thailand has met two of the three criteria since the December 2020 Report, having a material current account surplus and a significant bilateral trade surplus with the United States.
- Vietnam met two of the three criteria in the May 2019 Report, having a material current account surplus and a significant bilateral trade surplus with the United States, and met one of the three criteria in the January 2020 Report, having a significant bilateral trade surplus with the United States. Vietnam met all three of the criteria in this Report, the April 2021 Report, and the December 2020 Report.
- India has met two of the three criteria since the April 2021 Report, having a significant bilateral trade surplus with the United States and engaging in persistent, one-sided intervention over the reporting period.
- Mexico has met two of the three criteria since the April 2021 Report, having a material current account surplus and a significant bilateral trade surplus with the United States.
- Ireland met two of the three criteria in the April 2021 Report based on available data at the time, having a material current account surplus and a significant bilateral trade surplus with the United States, and therefore remains on the Monitoring List in this

Report. Ireland met one criterion in this Report, having a material current account surplus with the United States.

- Taiwan met two of the three criteria in the December 2020 Report, having a material current account surplus and a significant bilateral trade surplus with the United States. Taiwan met all three of the criteria in this Report and the April 2021 Report.

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

Further, in the April 2021 Report, Treasury determined that there was insufficient evidence to make a finding that any economy covered in the Report manipulates its exchange rate for either of the purposes referenced in the 1988 Act. Through its continued enhanced engagements with Vietnam, Switzerland, and Taiwan, as well as a thorough assessment of developments in the global economy as a result of the COVID-19 pandemic, Treasury has determined that none of these economies intervened in currency markets in the four quarters through June 2021 to prevent effective balance of payments adjustment or gain an unfair competitive advantage in trade. Treasury has also concluded that no other 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.

As the global economy continues to stabilize, it is critical that key economies adopt policies that allow for a narrowing of excessive surpluses and deficits. Heightened risks of economic scarring further underscore the need for governments to bolster domestic-led rather than externally supported growth. This would establish a firmer foundation for strong, balanced growth across the global economy.

Annex 1: Transparency of Foreign Exchange Policies and Practices

There is broad consensus that economic policy transparency enhances the credibility of economic institutions and fosters a more efficient allocation of resources as information asymmetries are reduced. In acknowledgement of this, international organizations have established numerous initiatives, codes, and best practices to foster policy and data transparency. The Treasury Department, and the U.S. government more broadly, has long been a strong advocate for enhancing transparency, including regarding foreign exchange policies and practices.

Key Aspects of Transparency

Over time, the IMF has established and revised sets of best practices that encompass or touch on foreign exchange reserves. Following the Asian crisis in the late 1990s, the IMF published the Code of Good Practices on Transparency in Monetary and Financial Policies (TMFP), to underpin a more transparent elucidation of the goals and instruments of policy, and to enhance the accountability of central banks and financial regulators, including with respect to foreign exchange reserve policies. It also established the Guidelines for Foreign Exchange Reserve Management, which sets out best practices with respect to transparency, governance, risk management, and the conduct of foreign exchange reserve management in efficient markets.

The IMF also created a data template on international reserves and foreign currency liquidity, which provides a comprehensive benchmark standard for the content and timing of public disclosures on foreign reserves.[29] Specifically, the template lays out standards for the provision of information on the amount and composition of official reserve and other foreign currency assets held by the monetary authorities and the central government as well as foreign currency liabilities and guarantees that can lead to drains on these assets. The IMF designed the template to strike an appropriate balance between preserving the integrity and effectiveness of the operations of monetary authorities on the one hand and the benefits of transparency on the other. The IMF points to several benefits of timely disclosure of comprehensive information on countries' international reserves and foreign currency liquidity, including (1) strengthening the accountability of the authorities; (2) allowing market participants to form a more accurate view of the condition of individual countries; and (3) assisting multilateral organizations to better anticipate emerging needs of countries.[30] Empirical research supports the benefits that foreign reserve data transparency can have; a 2006 IMF staff working paper finds that exchange rate volatility in a panel of 48 countries declined following their dissemination of the reserves template data.[31]

In July 2020, the IMF Executive Board approved a new IMF Central Bank Transparency Code (CBTC) as an update to the TMFP that aims to "to facilitate policy effectiveness

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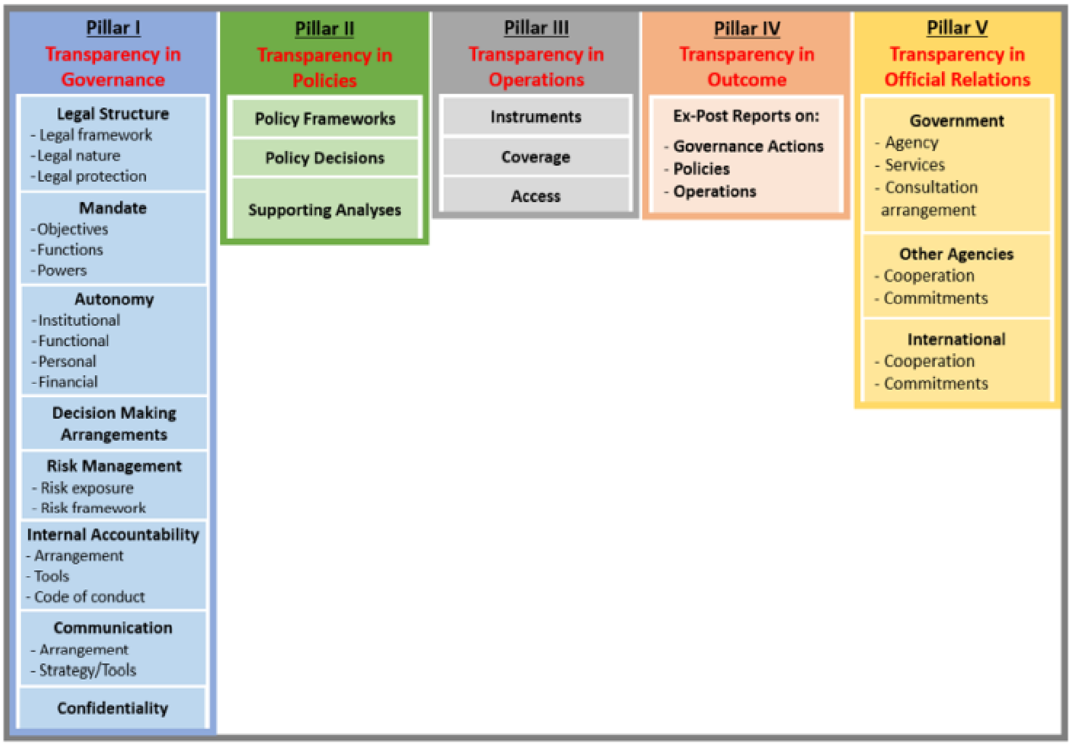
[29] https://www.imf.org/external/np/sta/ir/IRProcessWeb/sample.aspx.

[30] https://www.imf.org/external/np/sta/ir/IRProcessWeb/pdf/guide.pdf.

[31] https://www.imf.org/en/Publications/WP/Issues/2016/12/31/The-IMFs-Reserves-Template-and-Nominal-Exchange-Rate-Volatility-20116.

through greater transparency." Adherence to the CBTC is voluntary and takes into account the different circumstances of central banks in terms of legal frameworks, governance arrangements, and levels of economic and financial development. The CBTC is centered on five pillars: governance, policies, operations, outcomes, and official relations. Under each pillar, the code provides a list of best practices from "core" to "expanded" to "comprehensive" for key central bank activities.



Source: IMF Staff.

The code addresses several transparency considerations with respect to foreign exchange reserve management. A few highlights include:

Policies: The central bank discloses its policy objectives for foreign exchange reserve management, along with key considerations behind the policy, details on how oversight responsibility is allocated, and the potential impact of the policy.

Operations: The central bank discloses the general principles governing its foreign exchange reserve management operations, including relationships with counterparties and service providers.

Outcomes: The central bank discloses the results of its market operations, the volume of activity, and the direction of interventions on its website at a predefined time lag.

Taken together, the IMF's various transparency provisions focus on three essential aspects:

Foreign Exchange Policies: Policy effectiveness can be strengthened if the public knows the goals and instruments of policy, if the authorities can make a credible commitment to meeting them, and if they are held accountable.[32] Does the central bank or competent government authority clearly lay out the circumstances under which it will intervene in foreign exchange markets?

Most of the economies included in this Report have some form of a stated intervention policy. The formats for dissemination of intervention policies vary and include a dedicated page on the central bank's website, a statement in a monthly bulletin, or reference to intervention policy in a speech. The vast majority of intervention objectives, including in the United States,[33] refer to countering disorderly market conditions, which has been the thrust of IMF policy advice for economies with floating exchange rate regimes.[34] However, there are varying degrees of specificity of what makes up disorderly market conditions. The United States demonstrates through its track record of intervening only three times since 1996 that "disorderly" is truly rather extraordinary. The three events that spurred U.S. intervention were the Asian crisis in the late 1990s, volatility associated with euro introduction, and following the earthquake and subsequent tsunami in Japan in 2011. In each of these intervention episodes, the United States acted in concert with other central banks.

The Bank of Canada provides some explanation of what it considers to be disorderly:

> Bank of Canada's policy is to intervene… only in the most exceptional of circumstances. Intervention might be considered if there were signs of a serious near-term market breakdown (e.g., extreme price volatility with buyers or sellers increasingly unwilling to transact), indicating a severe lack of liquidity in the Canadian-dollar market.[35]

This elaboration, along with Bank of Canada's track record of infrequent intervention[36] and publication of intervention when it happens, provides a high degree of transparency and accountability with respect to Canada's intervention policies.

A few exchange rate authorities' intervention policies make reference to the *level* of the national currency in addition to volatility. The Swiss National Bank's intervention policy refers to "eas[ing] pressure on the currency." While the Reserve Bank of Australia maintains a floating exchange rate and rarely intervenes, it "retain[s] the discretion to intervene to address gross misalignment of the exchange rate."

Economies that manage their exchange rate within a band, such as Singapore, have either an implicit or explicit policy that they will intervene when the exchange rate is set to breach either side of the band.

[32] https://pdfs.semanticscholar.org/270e/ad5930bf6df9e1f75cc98e42aa12d6a7a68f.pdf.
[33] Foreign Exchange Operations - FEDERAL RESERVE BANK of NEW YORK (newyorkfed.org).
[34] See the IMF's External Sector Report, 2019.
[35] https://www.bankofcanada.ca/rates/exchange/foreign-exchange-intervention/.
[36] The Bank of Canada has not intervened since the coordinated G-7 intervention in March 2011.

Intervention Practices: While transparency of intervention policies lays out, ex ante, the conditions under which the exchange rate authorities would intervene in foreign exchange markets, transparency of intervention *practices* provides for public dissemination of intervention actions, during or after they have taken place. Highly timely statements or dissemination of intervention can enhance the impact of the intervention through the signaling effect, whereby markets adjust their exchange rate expectations when they perceive intervention as signaling a change in future monetary policy. Timely statements can also support policy credibility by demonstrating adherence to intervention policies.[37] The Treasury Secretary typically confirms U.S. intervention while the Federal Reserve is conducting the operation or shortly thereafter. Often, statements that reflect the official U.S. stance on its exchange rate policy accompany the Treasury's confirmation of intervention activity.

There may be some situations when exchange rate authorities would not choose to announce intervention immediately. When an economy facing market concern over the adequacy of foreign exchange reserves enters the market to replenish reserves, a public statement acknowledging low reserves could exacerbate volatility. Where there is concern the intervention may not achieve its intended goal, there may be a reluctance to announce an intervention. In cases such as these, however, aggregating foreign exchange purchases and/or sales over time, potentially combined with a delay in publication, could mitigate some of these concerns.

Foreign Exchange Reserves: A last aspect of transparency is the dissemination of information about the amount and composition of an economy's foreign exchange reserves. All of the economies covered in this Report disseminate the value of foreign exchange reserves on at least a monthly basis, and all except Vietnam publish the data within one month of the reporting period. All but three economies (China, Taiwan, and Vietnam) fully publish data consistent with the IMF's template on international reserves and foreign currency liquidity (IRFCL). A smaller subset, including the United States, UK, Canada, Switzerland, Australia, Brazil, and Mexico, publish the full currency composition of their foreign exchange reserves to the public. Most other economies, while they do not disseminate reserve composition publicly, provide this information confidentially to the IMF—through its Composition of Foreign Exchange Reserves (COFER) database[38]—which then aggregates the data and reports total currency composition of reporting economies' reserves on a quarterly basis.

Recent Developments in Transparency

In recognition of the benefits of transparency, many advanced economy exchange rate authorities began enhancing the transparency of their exchange rate regimes in the mid-1990s. They are now highly transparent, with comprehensive information about foreign

[37] https://www.imf.org/en/Publications/Occasional-Papers/Issues/2016/12/31/Official-Foreign-Exchange-Intervention-17920.
[38] Currently 149 economies report to the IMF's COFER database.

exchange reserves published in a highly timely manner, and intervention policies and practices elaborated and made public. Several emerging economies have achieved similar levels of transparency more recently. Brazil and Mexico set high standards for other emerging market economies with timely publication of data on their foreign exchange reserves and any foreign exchange intervention, and public dissemination of the currency composition of their reserves. India is also very transparent and publishes key data in a timely manner, though it does not publicly provide the currency composition of foreign exchange reserves. These economies adopted and implemented highly transparent foreign exchange regimes without adverse market reaction.

A few other economies have taken some steps toward enhancing transparency in recent years. The Bank of Korea issued publicly for the first time in 2019 the value of its foreign exchange intervention over a six-month period with a quarterly lag and has since moved to a quarterly dissemination with a quarterly lag. Singapore now reports six-monthly intervention with a three-month lag. Switzerland recently took a first step toward greater transparency by moving from annual to quarterly publication of foreign exchange intervention data.

While these steps are very welcome, many economies' transparency practices remain deficient:

- As Treasury has stressed in past reports, China's exchange rate practices and policies continue to lack transparency, including its lack of disclosure regarding intervention in foreign exchange markets, as well as directing changes to the interest rates of RMB-denominated assets that trade offshore, directing 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. Given China's long history of facilitating an undervalued currency through protracted, large-scale intervention in the foreign exchange market, and the sheer size of China's reserves, it is increasingly troubling that China has not enhanced the transparency of its foreign exchange policies and practices.

- Although not a member of the IMF, Taiwan uses the IMF's Special Data Dissemination Standard (SDDS) framework to provide data on many aspects of its economy, including the real, fiscal, financial, and many of the external sector accounts. Taiwan publishes its foreign exchange intervention data on a semi-annual basis and, in March 2020, Taiwan began disclosing data on the central bank's large stock of foreign exchange swaps on a monthly basis. Taiwan does not, however, publish data on the full details of its international reserves in accordance with the SDDS reserves template.

- Thailand, Malaysia, and Vietnam neither publicly publish intervention nor provide the IMF with the currency composition of their foreign exchange reserves, providing significant scope to enhance transparency. Thailand, Vietnam, and Malaysia disclose foreign exchange intervention to Treasury and granting consent to publish such data in the FX Report.

Table 1: Transparency of the United States and Its Major Trading Partner's Foreign Currency Regimes

	Foreign Exchange Reserves Data			Intervention			
	Headline Reserves: Frequency/Lag	**Derivative Position in IRFCL**	**Currency Composition**	**Stated Objective**	**Publish Intervention**	**Frequency**	**Lag**
USA	Weekly/1 day	Yes	Public	Yes	Yes	As it happens*	None
ECB	Monthly/2 weeks	Yes	Public[39]	No	Yes	As it happens*	None
UK	Monthly/3-7 days	Yes	Public	Yes	Yes	As it happens*	None
Japan	Monthly/1 week	Yes	COFER	Yes	Yes	Monthly	2 days
Canada	Monthly/1 week	Yes	Public	Yes	Yes	As it happens*	None
Switzerland	Monthly/1 week	Yes	Public	Yes	Yes	Quarterly	3 months
Australia	Monthly/1 week	Yes	Public	Yes	Yes	Annually[40]	4 months
Brazil	Daily/2 days	Yes	Public	Yes	Yes	Daily	5 days
Mexico	Weekly/4 days	Yes	Public	Yes	Yes	Monthly	6 days
India	Weekly/7 days	Yes	COFER	Yes	Yes	Monthly	2 months
China	Monthly/1 week	No[41]	COFER	No	No		
Taiwan	Monthly/1 week	No	No	Yes	Yes	Semi-annually	3 months
Korea	Monthly/1 month	Yes	COFER	Yes	Yes	Quarterly	3 months
Singapore	Monthly/1 week	Yes	COFER	Yes	Yes	Semi-annually	3 months
Thailand	Weekly/1 week	Yes	No	Yes	Yes[42]	Semi-annually	3 months
Malaysia	Biweekly/1 week	Yes	No	Yes	Yes[43]	Semi-annually	3 months
Vietnam	Monthly/2-3 months	No	No	Yes	Yes[44]	Semi-annually	3 months

* Intervention is published officially in certain reports on a regular basis but in practice intervention is announced on the day it takes place.

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[39] The ECB's template on international reserves and foreign currency liquidity reports the currency composition of the ECB's official reserve assets each December but does not provide a comparable breakdown for the Eurosystem.
[40] Australia publishes daily foreign exchange intervention one time per year in October. Australia has not intervened in foreign exchange markets since November 2008.
[41] China only discloses total short positions in forwards and futures in foreign currencies.
[42] Thailand discloses its foreign exchange intervention to Treasury with consent to publish in the FX Report.
[43] Malaysia discloses its foreign exchange intervention to Treasury with consent to publish in the FX Report.
[44] Vietnam discloses its foreign exchange intervention to Treasury with consent to publish in the FX Report.

Treasury will continue to press its major trading partners to make significant strides in enhancing the transparency of currency practices. As part of this effort, Treasury will monitor and provide its assessment of foreign exchange policy transparency in an Annex to the semiannual *Report on Macroeconomic and Foreign Exchange Policies of Major Trading Partners of the United States* on a regular basis.

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.