May 2021

Global Macro Views: Turning the Tide

The Global Macro Forum

BNY MELLON | INVESTMENT MANAGEMENT

MELLON

World (PPP Weighted)

	2019	2020	2021	BoR	2022	BoR
Real GDP	2.6%	-3.7%	5.8%	—	3.3%	—
Inflation	2.6%	2.7%	3.0%	—	2.7%	—

Source: Firm analysis as of April 5, 2021. 2021 and 2022 are forecasts. BoR (Balance of Risks): Indicates bias relative to our forecasts as new information becomes available. "⮝" represents a positive view, "⮟" represents a negative view and "—" indicates a neutral view.

For the past 13 months, framing the outlook for the global economy has begun with a grim reckoning: How many have been infected and died from the coronavirus? People concerned about the health consequences of human interaction limit market activity, either voluntarily, if able, or by fiat as governments lock down portions of the economy to husband health care resources. The proliferation of the most important health resource, vaccinations, seems to be turning the tide for those nations with the infrastructure and ability to do it right.

As shown in the table at below, the US, UK, and Israel have jabbed about one-half of their populations at least once. Continental Europe still is punching below its weight, and has, as a consequence, been fitfully imposing lockdowns in some major jurisdictions. Important emerging market economies are mired in the single digits.

The table highlights the inequity of the process, made more distinct in the chart on the following page. Vaccinations remain the purview of the wealthy, as incidence (measured along the vertical axis as vaccinations per hundred of the population) increases nonlinearly with a standard metric of development (scaled from zero to one and measured along the horizontal axis). Economies clustered along the front end of that curve are in a race between reducing their residents' exposure to the coronavirus and the virus's skill at mutating and spreading to more cohorts of the population.

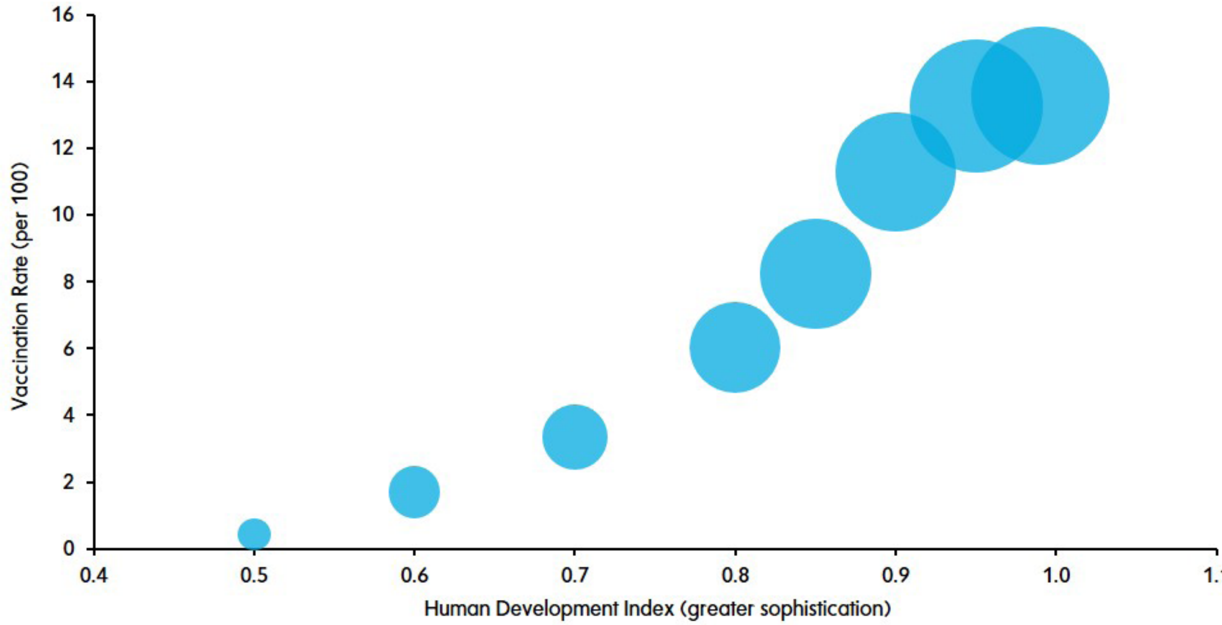
At Least One Vaccine Shot
Per 100 People

Israel	62	Norway	25	Mexico	10
United Arab Emirates	51	Italy	24	India	9
United Kingdom	51	Poland	24	Russia	9
United States	44	Ireland	23	South Korea	7
Canada	34	France	23	Indonesia	5
Germany	28	Netherlands	23	Japan	2
Belgium	26	Switzerland	20	Thailand	2
Austria	26	Turkey	16	Iran	1
Spain	25	Argentina	16	Nigeria	1
Sweden	25	Brazil	14		

Source: Johns Hopkins University (One World in Data) as of 5/3/21.

Vaccination Rate and Human Development Index

By Country

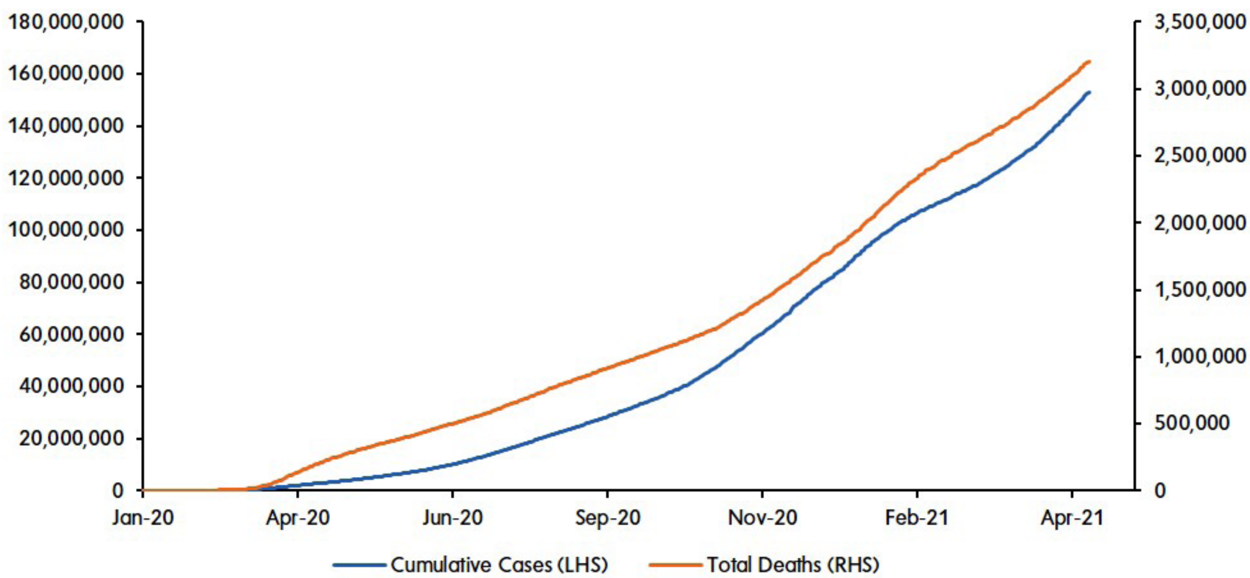


Source: Johns Hopkins University (Our World in Data) and the United Nations, as of 5/3/21. Bubble size represents 2019 GDP per capita.

The sorry state of that race probably explains why global cases and deaths have inflected up of late. The US compares favorably, in that total cases have not accelerated, and the death toll is flattening.

World: Cumulative Cases & Deaths

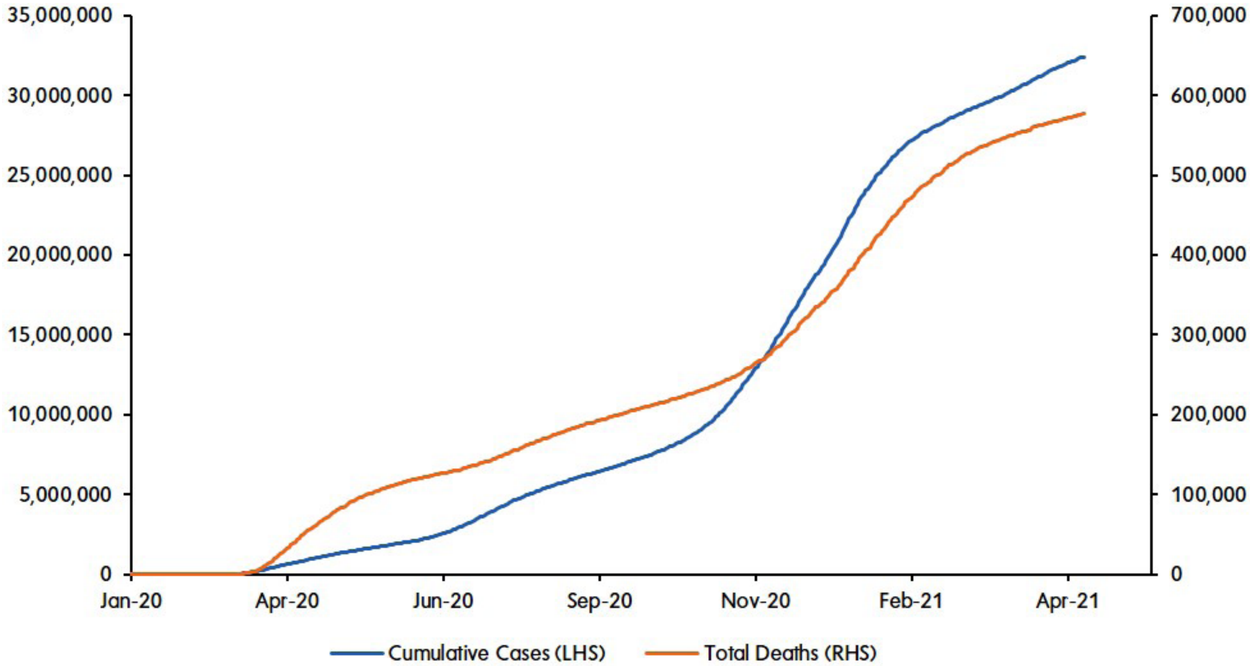
Number of People



Source: Johns Hopkins University (Our World in Data), as of 5/4/21.

US: Cumulative Cases & Deaths

Number of People



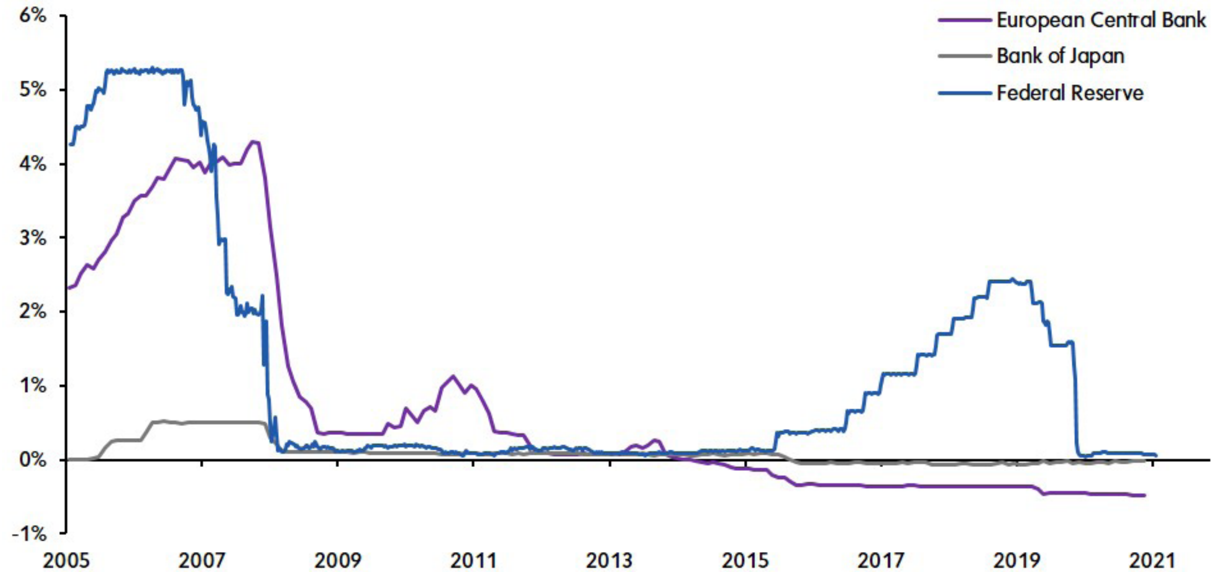
Source: Johns Hopkins University (Our World in Data), as of 5/4/21.

To be sure, "flattening" is a relative term, in that if we are at war with the coronavirus, there have already been more combat fatalities than the total in the three bloodiest wars of US history—the Civil War and the two World Wars.

Notwithstanding the demonstration by King Canute of the limits of human ability to turn a tide, we do believe that the US vaccination strategy has found traction, hastening when the nation will achieve effective herd immunity and people return fully to market activity. Important advanced economies follow behind and, therefore, still rely heavily on locking down activity. We expect them, however, to rally their vaccine roll-out. Other economies, including many among emerging markets, are more seriously behind. As a result, the healing of the global economy will be decidedly uneven.

Ample liquidity from the major central banks and fiscal stimulus from most governments should bridge the economic disruptions. The bridge, indeed, is high and long, perhaps too long in some notable cases so that stimulus will stretch well beyond the far edge of the pandemic-induced chasm in economic activity. As in the chart on the next page, the three major central banks have all pegged their policy rates at their effective lower bound. Initial conditions matter, in that the Federal Reserve (Fed) could initially provide conventional stimulus because it had some space to cut rates. The European Central Bank (ECB) and the Bank of Japan (BOJ) were already there. All have resorted to unconventional policies, scaling their balance sheet up by a factor of five to eight.

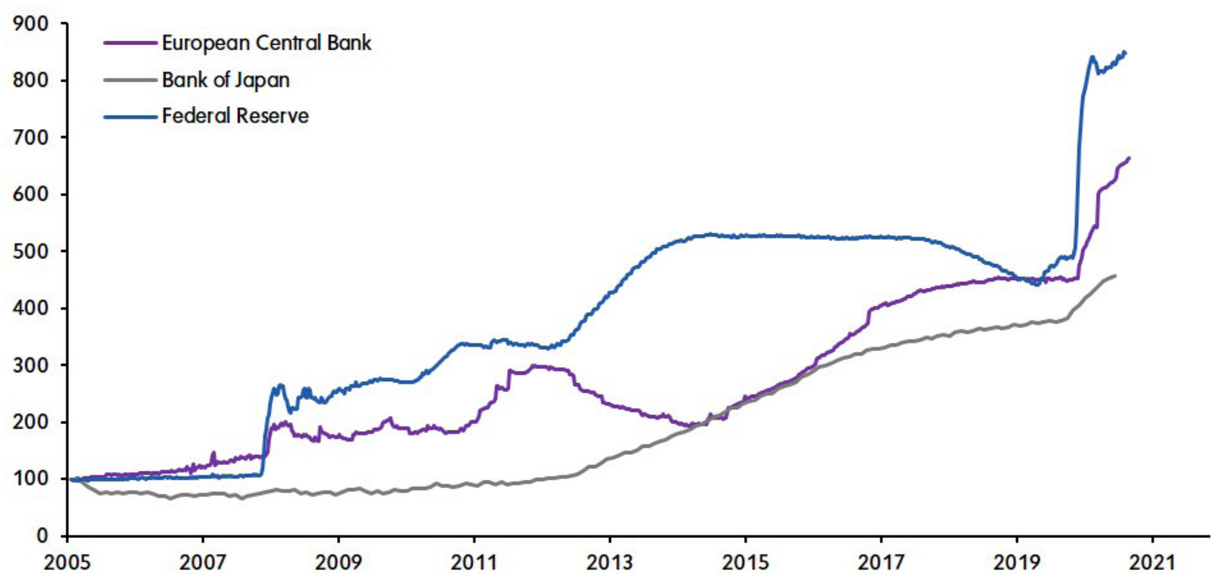
Central Bank Overnight Interest Rates



Source: Federal Reserve and OECD, accessed via Fred on 5/4/21.

Central Bank Assets

Index, January 2006=100

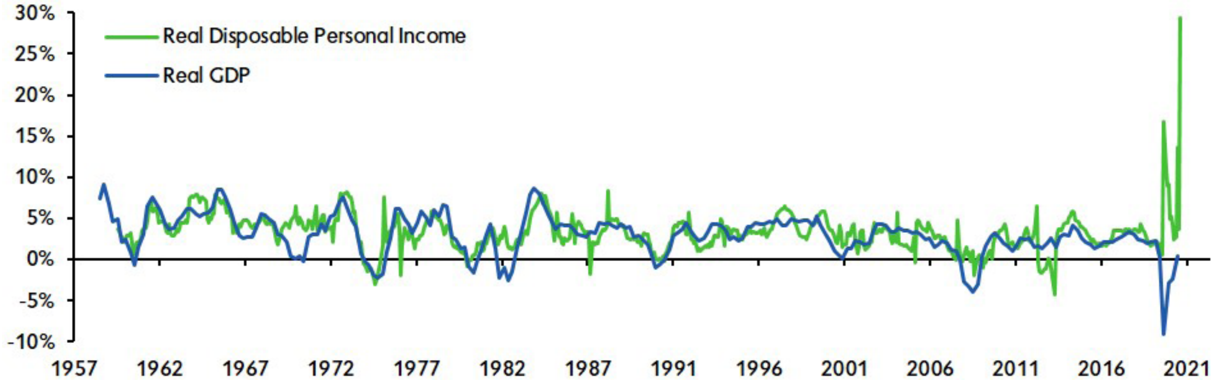


Source: Federal Reserve and OECD, accessed via Fred on 5/4/21.

Meanwhile, fiscal impetus in major economies runs into the low double digits relative to nominal GDP, with the US at the front of the pack. The following chart shows the four-quarter change in real GDP and the twelve-month change in real disposable income. As a nation, we have given ourselves 30 percentage points more income than we produced over the past year, the difference representing government transfers.

Real GDP and Real Disposable Income

Growth from One Year Earlier



Source: Bureau of Economic Analysis, accessed via FRED on 5/4/2021.

A considerable portion, about $2 trillion cumulatively, has been saved relative to the norm. This blunts the multiplier effects of the fiscal transfer but leaves households with the wherewithal to weather further hardship. The additional ambitions of the Biden administration—an infrastructure bill pegged at $2.2 trillion and the American Family Plan introducing new entitlements summing to $1.8 trillion—would keep that wedge wide, well past dislocations of the pandemic. As they are partly offset by a contentious revamping of most aspects of the federal tax code, we doubt that they will pass in their current forms in a closely divided Congress. We have penciled in scaled-back infrastructure spending in our outlook. The American Family Plan seems more aspirational than probable and is proposed to burnish the president's progressive credentials for the upcoming mid-term elections.

Developed Markets

United States

	2019	2020	2021	BoR	2022	BoR
Real GDP	2.3%	-3.1%	6.1%	—	2.8%	—
Inflation	1.8%	1.1%	2.5%	—	2.8%	—

Source: Firm analysis as of April 5, 2021. 2021 and 2022 are forecasts. BoR (Balance of Risks): Indicates bias relative to our forecasts as new information becomes available. "▲" represents a positive view, "▼" represents a negative view and "—" indicates a neutral view.

The easing of lockdowns and monetary and fiscal stimulus will extend the ongoing strong rebound in US economic growth, pulling real GDP to its level of late 2019 by the middle of this year and driving it above that of its potential in 2022. While inflation has picked up and more will follow, the Fed will almost surely maintain its current accommodative stance for the foreseeable future.

Three factors underpin our belief that the Fed will not begin to slow asset purchases until spring 2022 and raise the policy rate until about one year later. First, Fed Chair Powell dismisses the pickup in inflation thus far due to base effect as the year-ago inflation level drops from calculations and to temporary bottlenecks as demand picks up before supply fills in. Second, with its new policy framework, the Federal Open Market Committee (FOMC) holds that it will tolerate overshooting of inflation from its recent average. How much of an overshoot the FOMC tolerates and how long it looks back to calculate the average remains intentionally obscure, to allow continued policy accommodation. Third, the FOMC will time the policy take-off to economic outcomes, not its outlook. Specifically, the FOMC will wait until "substantial further progress" is made in achieving its goals relative to last December.

Those three factors also explain why our outlook incorporates a sustained rise in inflation. Transient inflation will not resolve itself as easily as Fed Chair Powell asserts, as monetary and fiscal stimulus boosts demand and additional supply takes a while to appear. In the interim, increases in the prices of goods and services especially salient to households will boost inflation expectations. These inflationary fears will be reinforced by the opacity of the FOMC's strategy. Additionally, its outcome-based, not outlook-based, policy design will heighten the overshoot.

Western Europe

Euro Area

	2019	2020	2021	BoR	2022	BoR
Real GDP	1.1%	-9.0%	4.5%	⮟	2.0%	⮟
Inflation	1.2%	0.4%	1.0%	—	1.1%	—

Source: Firm analysis as of April 5, 2021. 2021 and 2022 are forecasts. BoR (Balance of Risks): Indicates bias relative to our forecasts as new information becomes available. "⮝" represents a positive view, "⮟" represents a negative view and "—" indicates a neutral view.

United Kingdom

	2019	2020	2021	BoR	2022	BoR
Real GDP	1.2%	-10.0%	5.2%	⮟	2.5%	⮟
Inflation	1.9%	0.8%	1.4%	—	1.6%	—

Source: Firm analysis as of April 5, 2021. 2021 and 2022 are forecasts. BoR (Balance of Risks): Indicates bias relative to our forecasts as new information becomes available. "⮝" represents a positive view, "⮟" represents a negative view and "—" indicates a neutral view.

In Europe, the immediate outlook is challenged by administrative inefficiencies in vaccine distribution that prompted strict lockdowns across the continent. While the details differ, Europe is ultimately likely to follow a US-style economic trajectory, but more damped and with a lag. Generous wage-replacement programs should limit damage to household balance sheets, and when lockdowns are lifted, a vigorous rebound in consumer spending should drive growth in the second half. Nonetheless, even this strong rebound is unlikely to see aggregate economic activity exceed its pre-COVID peak before 2022.

The European Union's "temporary recovery instrument" worth €750 billion will likely support economic activity and introduce a common funding vehicle, another tentative step toward a true fiscal union. Italy seems best prepared to make use of its share, paced by Prime Minister Mario Draghi's transformational package of structural reforms. The bet of the Italian political class to bring Draghi out of his ECB retirement seems poised to pay off handsomely. We expect a less cohesive stimulus strategy in Germany as a general election looms in September. While a reshuffling of the place of the major parties may be in the offing, the German populace is unlikely to embrace significant budget deficits whomever is in charge.

The French public has become more adept at dealing with lockdowns, limiting the damage done over the turn of the year. Activity should rebound as restrictions are lifted and the global economy kicks into a higher gear, offset some by the expiry of support programs.

The UK is sui generis, a non-Saxon phrase that would bring forth an objection from its prime minister. While government effort has rallied in vaccine distribution and brought the end of mandated economic disruptions into sight, this only serves to highlight those dislocations associated with separation from the European Union (Brexit). The Bank of England, for its part, has opted for a Fed-like, outcome-oriented strategy. Inflation has to meet its target before accommodation is reined in, and that will take some time.

The ECB is likely to keep policy accommodative for some time, continuing to modestly front load its emergency bond buying, which has less than one year to run. The market consequences of slowing asset purchases later this year as the sunset date approaches will test both the resolve and cohesiveness of the ECB governing council.

Japan

	2019	2020	2021	BoR	2022	BoR
Real GDP	0.8%	-4.9%	2.2%	⮟	1.9%	—
Inflation	0.8%	0.0%	0.2%	⮟	0.4%	—

Source: Firm analysis as of April 5, 2021. 2021 and 2022 are forecasts. BoR (Balance of Risks): Indicates bias relative to our forecasts as new information becomes available. "⮝" represents a positive view, "⮟" represents a negative view and "—" indicates a neutral view.

Japan's manufacturing and export sector are poised to be the key drivers of its economy in 2021. However, recent supply-side disruptions, notably the chip shortage exacerbated by a factory fire in March, pose downside risks to the outlook. These disruptions will likely be a drag on second quarter production and GDP. Business surveys suggest that sentiment, particularly among large manufacturers, is on solid footing.

Inflationary pressures remain subdued, and we forecast the headline price level to be flat in 2021. Core inflation should very gradually lift in 2022, but still lag far behind the BOJ 2 percent inflation target. The BOJ will remain highly accommodative. A recent policy review left yield curve control and quantitative easing programs largely unchanged but provided some operational tweaks.

Australia

	2019	2020	2021	BoR	2022	BoR
Real GDP	1.6%	-2.4%	4.0%	⮟	3.0%	—
Inflation	1.5%	0.9%	1.4%	—	1.7%	—

Source: Firm analysis as of April 5, 2021. 2021 and 2022 are forecasts. BoR (Balance of Risks): Indicates bias relative to our forecasts as new information becomes available. "⮝" represents a positive view, "⮟" represents a negative view and "—" indicates a neutral view.

The Australian economy has outperformed expectations in the first part of 2021, leading to an upgrade of the growth outlook. Many of the positive surprises came on the jobs front as reopening of the economy has driven an employment rebound. This has in turn driven the unemployment rate sharply lower, although material slack remains. Despite these improvements, there may be some upward pressure on the unemployment rate in coming months as the federal government JobKeeper and JobSeeker programs expire. That said, high job-vacancy readings suggest strong demand for labor, which should smooth the labor market's exit from these generous income support programs. The Reserve Bank of Australia (RBA) continues to lean into monetary policy accommodation as the outlook for wages and prices remains subdued. The RBA forecasts that underlying inflation will not return sustainably to the 2-3 percent target band "until 2024 at the earliest." We think it may take longer.

Emerging Markets

Asia

China

	2019	2020	2021	BoR	2022	BoR
Real GDP	6.1%	2.3%	8.4%	—	5.4%	—
Inflation	2.9%	2.4%	1.6%	—	2.1%	—

Source: Firm analysis as of April 5, 2021. 2021 and 2022 are forecasts. BoR (Balance of Risks): Indicates bias relative to our forecasts as new information becomes available. "⮝" represents a positive view, "⮟" represents a negative view and "—" indicates a neutral view.

Our headline views on China are unchanged, but the country's macro exceptionalism is set to wane as growth in the US pick up, it vaccinates its citizens only slowly, and geopolitical tensions boil on the front burner. China's growth rebound remains on track to reach a yearly rate of around 8.4 percent despite a soft-patch of activity early in the year brought on by a surge of coronavirus infections in a few Northern provinces. Our confidence in the near-term rebound is underpinned by the strength of exports and production, which should offset any near-term shortfall in services activity in coming months. Provincial authorities kept many migrant workers from returning home for family gatherings during the Lunar New Year holidays to curb a broader spread of infections. That kept many export-oriented firms staffed and humming through the holidays, resulting in a larger-than-expected pick up in exports and industrial production. The production momentum should remain firm amid improving activity in many parts of the world, and, especially, the rollout of stimulus in the US and Europe.

However, the growth pick-up is not broad-based and, as a result, consumer confidence and CPI inflation will take more time to recover. This is because China's stimulus has been geared toward keeping businesses afloat and spurring infrastructure rather than directly boosting household consumption. If anything, stricter regulations to lower real estate lending and curbs on (privately owned) tech enterprises may have dampened sentiment. This has kept the urban unemployment rate somewhat elevated and slowed the pick-up in households' disposable income. In turn, these trends are likely to limit a faster catch-up of consumption to the recovery in investment, production and exports. Growth will undoubtedly exceed the authorities' minimum target of 6 percent. But in the absence of further consumption support or structural reform, it is likely to ease back to the mid-to-low 5 percent area later this year and into 2022.

No doubt, the geopolitical backdrop has darkened. Recent increases in confrontational rhetoric between China and the US (as well as vis-à-vis the EU) seem to signal a greater tolerance, by Beijing, for risk taking. This belies expectations of a thaw in bilateral tensions following the election of President Biden. As such, it will ensnare a growing number of Western as well as Chinese multi-national businesses, and hurt their operations and capital raising prospects. In turn, these could also augur more autarkic policies on tech development and greater emphasis on the domestic leg of the Dual Circulation Strategy which was formally adopted at the recently concluded National People's Congress in March.

South Korea

	2019	2020	2021	BoR	2022	BoR
Real GDP	1.9%	-1.5%	3.5%	—	2.2%	⮟
Inflation	0.5%	0.5%	1.2%	⮝	1.4%	—

Source: Firm analysis as of April 5, 2021. 2021 and 2022 are forecasts. BoR (Balance of Risks): Indicates bias relative to our forecasts as new information becomes available. "⮝" represents a positive view, "⮟" represents a negative view and "—" indicates a neutral view.

Korea has managed to rein in a winter surge in coronavirus infections. But a non-zero rate has kept social distancing restrictions in place. This will continue to limit a sequential pick-up in domestic activity by restraining services and consumption. But the headline rate of yearly growth will, nevertheless, likely surge to over 3 percent. This is for three reasons. First, Korean exports continue to benefit from a large increase in global demand for semi-conductors and electronics, which will keep net exports and production elevated. Second, the government's fiscal stimulus is offsetting some of the domestic demand slump, and Korea is one of the few countries in Asia where fiscal policy is unlikely to be reined in sizably in 2021. Finally, the headline growth rate will benefit from 2020's low base effect. In this context, inflation will likely rise slowly on gradually narrowing output gaps and higher fuel prices. It will remain well below the Bank of Korea's (BOK) 2 percent target. As such, we expect the BOK to keep its policy rate unchanged and to buy government bonds to the tune of one-half percent of GDP to alleviate net market absorption.

India

	2019	2020	2021	BoR	2022	BoR
Real GDP	5.1%	-7.0%	11.0%	—	6.0%	—
Inflation	3.3%	6.5%	5.2%	⮝	5.0%	⮝

Source: Firm analysis as of April 5, 2021. 2021 and 2022 are forecasts. BoR (Balance of Risks): Indicates bias relative to our forecasts as new information becomes available. "⮝" represents a positive view, "⮟" represents a negative view and "—" indicates a neutral view.

India is witnessing a large, second-round increase in coronavirus cases. However, the fatality rate is lower and the vaccine rollout is also increasing. In this backdrop, and amid a sizable fiscal stimulus, low (real) interest rates and ample liquidity, the private capex cycle continues to recover. A renewed spate of localized lockdowns is a real risk in coming months, and it could weigh on transportation and other services. But the economy is unlikely to encounter a widespread or country-wide lockdown. Therefore, we stick to our forecast for a growth of around 11 percent this year whilst acknowledging downside risks, and project a normalization to around 6 percent in 2022 and beyond. Inflation should soften versus 2020, on fewer supply-side disruptions and lower food prices, as well as high base-year effects. However, firmer fuel oil prices will keep it from falling below a yearly rate of 5 percent in the near term. Government regulations will remain geared toward further reform and boosting external competitiveness: unclogging of credit channels, privatization of state assets, opening up the economy to more foreign direct investment, and the selective application of import tariffs and production subsidies to redirect global supply chains toward India.

Latin America

With a weaker health infrastructure and a greater reliance on the informal sector, the economies of Latin America initially struggled significantly from the pandemic. While a strong rebound in the second half of 2020 offers positive carryover to support activity, the inability to vaccinate much of the population has allowed a new wave of infections to take an increasingly deadly toll, with a cost to economic activity. As a result, the rebound has not been even, especially for service sectors. Unemployment rates are still very high, as labor-intensive sectors remain depressed. The core dilemma of extending fiscal stimulus is that many national balance sheets do not afford the room and the political calendar is complicated.

After a stronger-than-anticipated rebound of economic activity in the second half of last year, most Latin American economies slowed as a new coronavirus strain in Brazil spread across neighboring countries. As a consequence, governments of several South American countries have retreated in reopening their economies. Also, there is less fiscal room to extend stimulus beyond 2020.

We think that economic recovery in the region will take several years and, excepting Chile, most countries will not return to pre-pandemic levels before 2023 due to fiscal constraints, low investment relative to GDP, and still-weak labor markets.

Inflation is set to rise in the first months of the year due to higher food and energy prices. In most cases, inflation will likely return to levels consistent with central banks' targets.

The political agenda is crowded in 2021, and several political events could imply a risk for sound macro policies, especially in those countries that have been hit hard by the pandemic and where populist alternatives have become attractive. Electoral processes in Argentina, Chile, Ecuador, Mexico and Peru could represent the intensification of populist measures or risks to the continuity of sound macro policies ahead.

Brazil

	2019	2020	2021	BoR	2022	BoR
Real GDP	1.0%	-4.1%	3.1%	⮟	1.1%	—
Inflation	3.7%	3.2%	5.1%	⮝	3.5%	⮝

Source: Firm analysis as of April 5, 2021. 2021 and 2022 are forecasts. BoR (Balance of Risks): Indicates bias relative to our forecasts as new information becomes available. "⮝" represents a positive view, "⮟" represents a negative view and "—" indicates a neutral view.

The Brazilian economy contracted 4.1 percent in 2020, less than previously anticipated due to a large fiscal stimulus equivalent and loose monetary conditions. GDP growth likely slowed in the first quarter, and we expect a contraction of 2.5 percent in the second quarter due to the decision of several regional governments to roll back the reopening of activities. The vaccine rollout will be crucial for growth recovery. Inflation pressures have extended beyond 2020 and headline inflation is well above the 3.75 percent target driven by food, energy and currency depreciation. Headline inflation rebounded from 1.9 percent year-over-year in August to 5.8 percent in February, and will likely peak in the third quarter at 7.5 percent.

On the fiscal side, the acceleration of infections in the first quarter led Congress to request that the Bolsonaro administration extend the fiscal stimulus during the March-June period, and to launch fiscal compensatory measures to avoid breaking the fiscal rules. The structural reforms agenda has been postponed due to the sanitary emergency. The external accounts in Brazil continue to improve, supported by favorable terms of trade and weak domestic demand. Brazil's current account deficit dropped to 0.9 percent of GDP in 2020 from 2.8 percent at the end of 2019. We expect the current account deficit to widen to 1.3 percent of GDP in 2021 due to a more dynamic domestic demand.

Mexico

	2019	2020	2021	BoR	2022	BoR
Real GDP	-0.1%	-8.2%	4.0%	⮝	2.0%	—
Inflation	3.6%	3.4%	3.9%	⮝	3.5%	—

Source: Firm analysis as of April 5, 2021. 2021 and 2022 are forecasts. BoR (Balance of Risks): Indicates bias relative to our forecasts as new information becomes available. "⮝" represents a positive view, "⮟" represents a negative view and "—" indicates a neutral view.

Inflation pressures have intensified recently due to higher energy prices and durable goods inflation. Inflation is above 4 percent again and will likely peak in April at 5.4 percent. We expect inflation to gradually fall to 4.4 percent at the end of the year. We revise average inflation in 2021 to 3.9 percent from 3.3 percent. The Central Bank of Mexico cut its policy rate by 25 basis points in February to 4 percent. Further rate cuts are data dependent, but we see no room for more cuts.

We expect a current account surplus of 1.0 percent of GDP in 2021, down from 2.4 percent deficit in 2020. Net exports and remittances have helped to improve the current account during the pandemic and have offset capital outflows from the government debt market.

Fiscal austerity will continue in 2021 and we see a reduction of the fiscal deficit to 2.7 percent of GDP in 2021 from 3.9 percent in 2020. We project the debt-to-GDP ratio to increase and stabilize at 53 percent in 2021 after jumping 8 percentage points between 2019 and 2020.

Russia, Turkey, South Africa, CEEMEA

Russia

	2019	2020	2021	BoR	2022	BoR
Real GDP	1.2%	-4.0%	3.0%	⮟	1.5%	⮟
Inflation	4.2%	3.5%	3.5%	—	3.3%	—

Source: Firm analysis as of April 5, 2021. 2021 and 2022 are forecasts. BoR (Balance of Risks): Indicates bias relative to our forecasts as new information becomes available. "⮝" represents a positive view, "⮟" represents a negative view and "—" indicates a neutral view.

Turkey

	2019	2020	2021	BoR	2022	BoR
Real GDP	0.5%	0.0%	3.5%	⮟	4.0%	⮟
Inflation	15.0%	12.0%	11.0%	—	11.0%	—

Source: Firm analysis as of April 5, 2021. 2021 and 2022 are forecasts. BoR (Balance of Risks): Indicates bias relative to our forecasts as new information becomes available. "⮝" represents a positive view, "⮟" represents a negative view and "—" indicates a neutral view.

South Africa

	2019	2020	2021	BoR	2022	BoR
Real GDP	0.4%	-7.0%	3.0%	⮟	1.5%	⮟
Inflation	4.1%	3.5%	3.5%	—	3.5%	—

Source: Firm analysis as of April 5, 2021. 2021 and 2022 are forecasts. BoR (Balance of Risks): Indicates bias relative to our forecasts as new information becomes available. "⮝" represents a positive view, "⮟" represents a negative view and "—" indicates a neutral view.

Poland

	2019	2020	2021	BoR	2022	BoR
Real GDP	4.2%	-3.0%	4.0%	⮟	4.5%	⮟
Inflation	2.2%	3.0%	3.0%	—	2.5%	—

Source: Firm analysis as of April 5, 2021. 2021 and 2022 are forecasts. BoR (Balance of Risks): Indicates bias relative to our forecasts as new information becomes available. "⮝" represents a positive view, "⮟" represents a negative view and "—" indicates a neutral view.

The Global Macro Forum

Vincent Reinhart
Managing Director, Chief Economist & Macro Strategist

Vincent is Mellon's Chief Economist and Macro Strategist. In this role, he is responsible for developing views on the global economy and making relative value recommendations across global bond markets, currencies and sectors.

Previously, Vincent served as the Chief US Economist and a managing director at Morgan Stanley. For the prior four years, he was a resident scholar at the American Enterprise Institute (AEI). Vincent also worked in several roles at the Federal Reserve over 24 years, including Director of the Division of Monetary Affairs and Secretary and Economist of the Federal Open Market Committee (FOMC). His responsibilities at the Federal Reserve included directing research and analysis of monetary policy strategies and the conduct of policy through open market operations, discount window lending and reserve requirements. Prior to these roles, he was the principal liaison with the domestic desk at the Federal Reserve Bank of New York and was responsible for preparing a document outlining policy alternatives for each FOMC meeting. He was Deputy Director in the Division of International Finance and Associate Economist of the FOMC and spent five years at the Federal Reserve Bank of New York in both the domestic and international research departments.

His academic publications primarily concern the conduct of policy and issues related to the monetary transmission mechanism as well as an analysis of alternative auction techniques and Treasury debt management. After an undergraduate training at Fordham University, he received graduate degrees in economics at Columbia University.

Rowena Geraghty
Assistant Vice President, Sovereign Analyst

Rowena is a sovereign analyst at Mellon Investments (UK) Limited, an affiliated entity, and an associated person of the firm.

Rowena contributes to the bond and currency strategy for the Global and Emerging Market portfolios through her fundamental credit and market analysis. She is responsible for research and analysis of economies across EMEA. Rowena joined the firm in 2013. Previously, she worked at Fitch ratings agency and the financial regulator, the Financial Services Authority (a predecessor organization to the UK's current regulator, the Financial Conduct Authority).

Rowena has a BSc and MSc in Economics from the University of London. Rowena has been in the investment industry since 2010.

Alejandro Martinez Cruz
Vice President, Emerging Market Economist

Alejandro is an emerging market economist with a particular focus on Latin American countries. He provides macro views, insights and trade recommendations based on his analysis of economic, statistical and socioeconomic data, which inform the investment decisions of the Emerging Market Debt team.

Prior to joining the firm, Alejandro held several senior roles at HSBC, including a Mexico rates and foreign exchange analyst, senior LatAm strategist and the Head of Latin American Fixed Income Research. In the latter role he led fixed income research efforts for Argentina, Brazil, Chile, Colombia, Mexico, Peru, Ecuador, Dominican Republic and Costa Rica. Previously, he was an economist for Citigroup, and a currency and local rates market analyst at the Bank of Mexico. Alejandro has been in the investment industry since 1998.

Alejandro earned a degree in economics from Instituto Tecnológico y de Estudios Superiores de Monterrey and a masters in economics from the University of Rochester.

Aninda Sankar Mitra
Vice President, Senior Sovereign Analyst

Aninda is senior sovereign analyst of BNY Mellon Investment Management Singapore Pte. Ltd and provides non-discretionary research or discretionary investment management services to the firm as a subadvisor. He is responsible for Asia ex-Japan sovereign debt research. Aninda joined in March 2014 from Fitch Ratings Credit Wire Service where he served as senior director Asia Pacific. Aninda was previously Head of Southeast Asia Economics at ANZ Bank and Senior Sovereign Analyst at Moody's in Singapore and New York.

Aninda holds a MA Economics from University of North Carolina and a BS Economics (Magna Cum Laude) from Bridgewater College. Aninda has over 22 years of experience as a sovereign analyst and economist focused on Asia.

Nicholas Tocchio
Sovereign Analyst

Nick is a sovereign analyst contributing to interest rate and currency strategy for global portfolios. He is responsible for fundamental credit and market analysis for Australia, Canada and New Zealand. Nick joined the firm in 2013 and holds a BA in Economics from Hamilton College. He has been in the investment industry since 2013.

Disclosure

For more market perspectives and insights from our teams, please visit www.mellon.com.

BNY MELLON | INVESTMENT MANAGEMENT

MELLON

www.mellon.com