

# **Wells Fargo Economics** *Monthly Macro Manual*

---

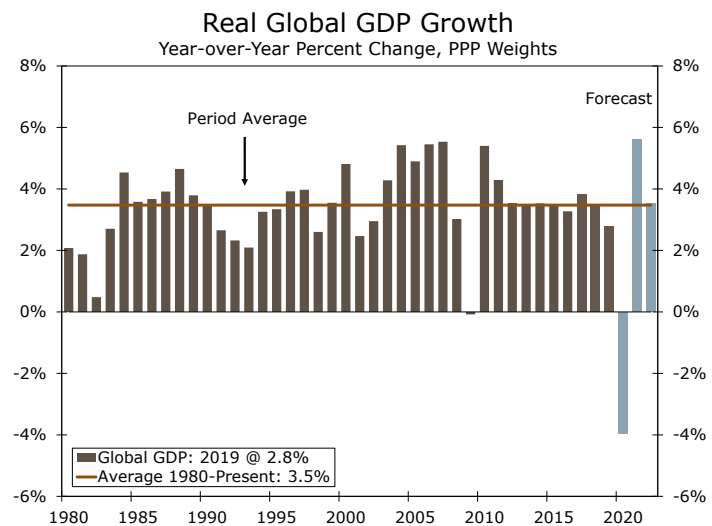
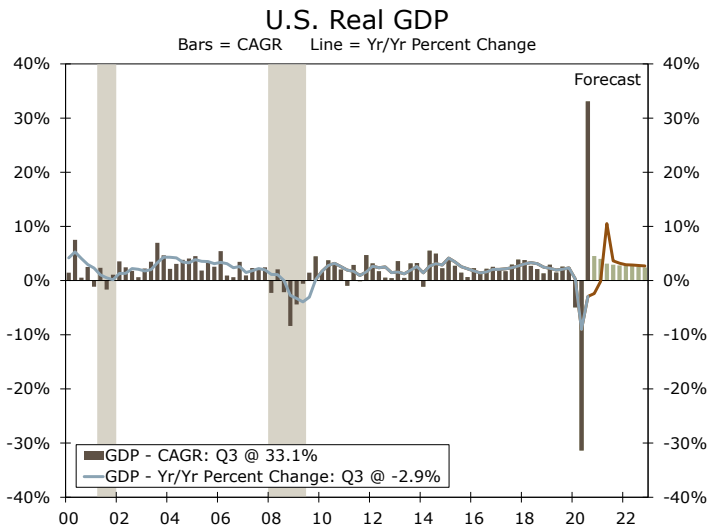
*Your guide to the data and events that will shape the economic outlook and drive financial markets in the month ahead.*

November 10, 2020

# Key Takeaways

## Developments since Our October Monthly Economic Outlook

- Our real GDP growth forecast for the United States is largely unchanged. We will be watching very closely in the weeks ahead for signs that the spike in COVID cases is weighing on economic activity. Thus far, we have not seen enough evidence that would lead us to make material downward revisions to our forecast for the U.S. economy.
- The downside risk presented by rising COVID cases is balanced by the absence of additional fiscal stimulus in our baseline forecast. Should a COVID relief bill come to pass by year-end or early 2021, this would likely create upside risk to our forecasts for U.S. real GDP growth, nonfarm payroll growth, etc.
- Our year-end targets for the 10-year Treasury yield are unchanged at 0.85% for 2020 and 1.30% for 2021.
- Our global growth forecast, unlike our U.S. forecast, has seen some downward revisions, most notably in the Eurozone and United Kingdom. Surging COVID cases in parts of the northern hemisphere have led to renewed government restrictions, and we now believe the U.K. and Eurozone economies will contract in Q4-2020.
- As a result, our forecast for global growth in 2020 is roughly flat compared to October, but we have brought down our 2021 forecast by about 0.6 percentage points.



Source: U.S. Department of Commerce, International Monetary Fund and Wells Fargo Securities

# Monthly Macro Calendar: November 9-December 4

Monday	Tuesday	Wednesday	Thursday	Friday
<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>
<b>Mester* (Cleveland Fed)</b> Takes part in Fintech Conference <b>Kaplan* (Dallas Fed)</b> Takes part in Virtual Event <b>China CPI (YoY)</b> September 1.7%	<b>Kaplan* (Dallas Fed)</b> Speaks at the Council on Foreign Relations <b>Quarles* (Board of Governors)</b> Appears Before Senate Banking Panel <b>Brainard* (Board of Governors)</b> Discusses Community Reinvestment Act <b>*WFS Economics Split Decision Webinar</b>	<b>Veterans Day</b> [U.S. Bond Markets Closed]	<b>Lagarde, Bailey &amp; Powell* (Fed Chair)</b> Speak at ECB Forum <b>Consumer Price Index (MoM)</b> September 0.2%; October 0.2% (W) <b>United Kingdom GDP (QoQ)</b> Q2 -19.8%	<b>Williams* (New York Fed)</b> Takes part in FT Webinar <b>Bullard (St. Louis Fed)</b> Discusses U.S. Economy & Monetary Policy <b>PPI Final Demand (MoM)</b> September 0.4%; October 0.3% (W)
<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>
<b>Japan GDP (SA, QoQ)</b> Q2 -7.9% *released night before on 11/15	<b>Bostic, Daly, Kashkari* and Rosengren</b> Take part in conf. on racism & the economy <b>Retail Sales (MoM)</b> September 1.9% <b>Industrial Production (MoM)</b> September -0.6%	<b>Williams* (New York Fed)</b> Takes part in Webinar Discussion <b>Kaplan* (Dallas Fed)</b> Moderates Panel Discussion <b>Housing Starts (SAAR)</b> September 1,415K	<b>Existing Home Sales (SAAR)</b> September 6.54M <b>Japan Natl CPI (YoY)</b> September 0.0%	
<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>	<b>27</b>
<b>Evans (Chicago Fed)</b> Speaks at Detroit Community Forum	<b>Consumer Confidence</b> October 100.9	<b>Personal Income &amp; Spending (MoM)</b> September 0.9%; 1.4% (Income; Spending) <b>Durable Goods Orders (MoM)</b> September 1.9% <b>New Home Sales (SAAR)</b> September 959K <b>FOMC Meeting Minutes</b>	<b>Thanksgiving Day</b> [U.S. Markets Closed]	
<b>30</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Reserve Bank of Australia Rate Decision</b> Previous 0.10% (Cash Rate)	<b>ISM Manufacturing</b> October 59.3 <b>Canada GDP (QoQ, Annualized)</b> Q2 -38.7%	<b>U.S. Federal Reserve Beige Book</b>	<b>ISM Services Index</b> October 56.6	<b>Nonfarm Payrolls</b> October 638K <b>Trade Balance</b> September -\$63.9B <b>Reserve Bank of India Rate Decision</b> Previous 3.00% (Cash Reserve Ratio)

Note: (W) = Wells Fargo Estimate, (C) = Consensus Estimate, \* = voting FOMC member in 2020, Red = Market Moving Releases

**WFS Split Decision: The Election and the U.S. Economy: November 10, 2020 at 11:00am ET. [Register Here.](#)**

Source: Bloomberg LP and Wells Fargo Securities

# U.S. Growth Outlook

Real GDP growth forecast for Q4-2020: **4.5%** (seasonally adjusted annualized rate)

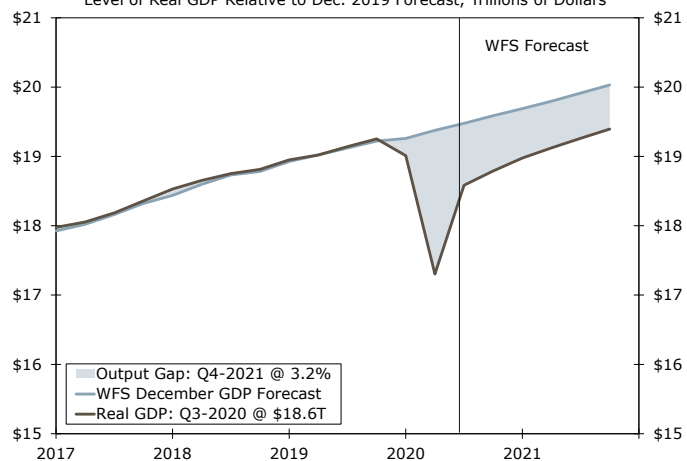
- Change since last forecast: **-1.6 percentage points**
- Since our previous update, **U.S. real GDP bounced back at a record pace in Q3** (+33.1% annualized), but the level of GDP still remains 3.5% below its Q4-2019 peak. The slightly stronger-than-expected Q3 growth rate explains much of our modest downward revision to our Q4 growth number. **Through the noise, our H2-2020 expectations for real GDP growth have not changed materially.**
- We look for consumer spending growth to slow in the final months of the year. We think some [holiday spending](#) may have been pulled forward, leading to slower growth in November and December, while the recent spike in COVID cases may weigh on services consumption. Should these concerns prove unfounded, or should another COVID relief bill come together quickly, there would be upside risk to our near-term growth expectations.

Real GDP growth forecast for full-year 2021: **4.2%** (year-over-year percent change)

- Change since last forecast: **-0.2 percentage points**
- **Our full-year 2021 growth forecast remains largely unchanged** and the modest downward revision is mostly due to base effects. We continue to expect above-trend growth to chip away at slack in the economy, but we do not expect it to be fast enough to fully eliminate the output gap by the end of our forecast horizon (Q4-2022).

## COVID Output Gap

Level of Real GDP Relative to Dec. 2019 Forecast, Trillions of Dollars



Source: U.S. Department of Commerce and Wells Fargo Securities

## Key Themes and Upside/Downside Scenarios

- *Upside scenario:* The recent acceleration in COVID cases slows, and medical advancements for vaccines/therapeutics occur faster than expected. The U.S. economy holds up through the winter months and accelerates next spring/summer amid a waning pandemic and a highly stimulative economic policy backdrop.
- *Downside scenario:* Recent COVID outbreaks accelerate in the fall and winter months, halting the economic rebound. Monetary and fiscal policy responses are not as forthcoming/effective the second time around, medical advancements are disappointingly slow, and a double-dip recession takes hold.

## Inflation Forecast

- **We did not make any major changes to our inflation forecast.** We still look for the year-over-year rate of PCE inflation to remain below 2% for quite some time.

## Labor Market Forecast

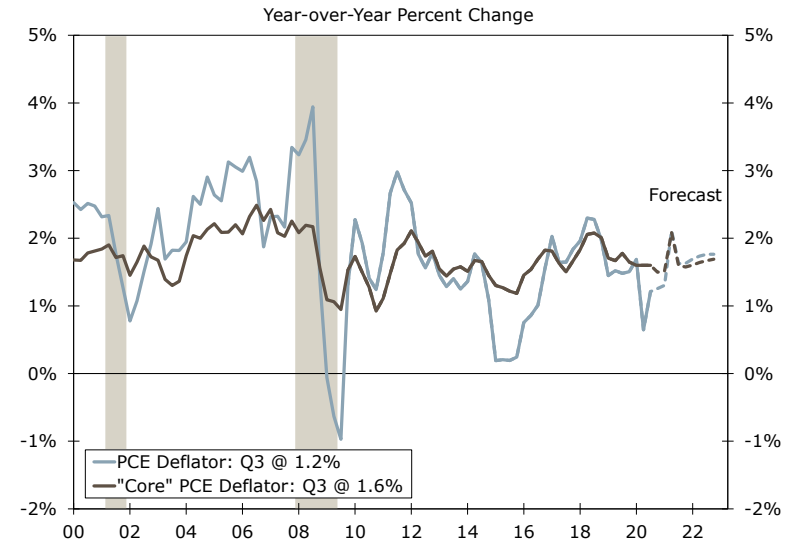
- **We did not make any major changes to our labor market forecast.** We still look for a gradual recovery in the labor market and forecast the unemployment rate to be below 6% at the end of 2021 and under 5% by the end of 2022.
- Employers added 638K jobs in October, and the unemployment rate (UR) slid to a better-than-expected 6.9%. There was a major divergence between the household survey employment number (+2.24M) and the establishment survey (+638K), explaining the big drop in the UR. **We expect the household survey numbers to come back down to Earth over the next couple of months.**

## Fed Funds Outlook

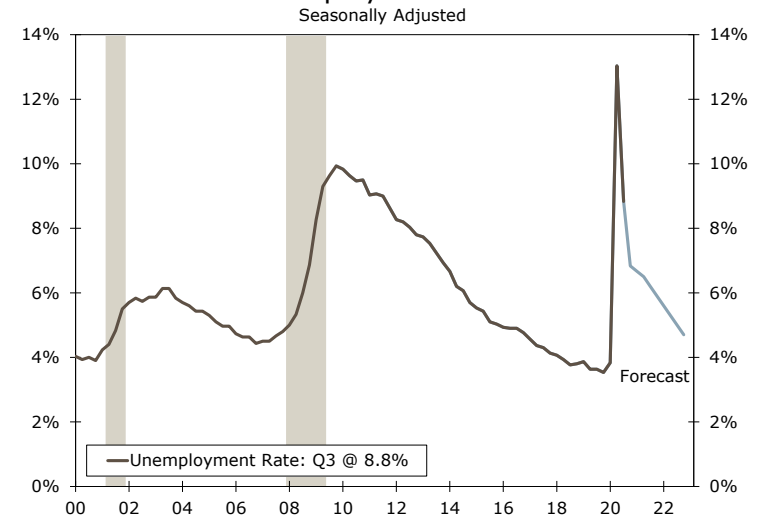
### Fed Funds Forecast for 2020-2022: **No change**

- We continue to expect the FOMC to keep the federal funds rate unchanged through at least the end of 2022.
- **While not our base case, the FOMC could ease further in the months ahead.**
- If no further fiscal support is forthcoming, the FOMC may feel compelled to add further monetary policy accommodation by increasing the size of its asset purchases or more heavily weighting existing purchases to longer-dated securities.

## PCE Deflator & "Core" PCE Deflator



## Unemployment Rate



Source: U.S. Department of Commerce, U.S. Department of Labor and Wells Fargo Securities

## Wells Fargo Securities U.S. Interest Rate Forecast

	Actual								Forecast							
	2019				2020				2021				2022			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Quarter End Interest Rates																
Federal Funds Target Rate	2.50	2.50	2.00	1.75	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
SOFR <sup>1</sup>	2.43	2.43	2.28	1.67	1.23	0.05	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
3 Month LIBOR	2.60	2.32	2.09	1.91	1.45	0.30	0.23	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Prime Rate	5.50	5.50	5.00	4.75	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25
Conventional Mortgage Rate	4.28	3.80	3.61	3.72	3.45	3.16	2.89	2.80	2.80	2.85	2.90	3.00	3.05	3.10	3.15	3.20
3 Month Bill	2.40	2.12	1.88	1.55	0.11	0.16	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
6 Month Bill	2.44	2.09	1.83	1.60	0.15	0.18	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
1 Year Bill	2.40	1.92	1.75	1.59	0.17	0.16	0.12	0.15	0.15	0.15	0.15	0.15	0.20	0.20	0.25	0.25
2 Year Note	2.27	1.75	1.63	1.58	0.23	0.16	0.13	0.15	0.20	0.20	0.20	0.25	0.25	0.30	0.35	0.45
5 Year Note	2.23	1.76	1.55	1.69	0.37	0.29	0.28	0.35	0.40	0.45	0.55	0.65	0.70	0.75	0.85	0.95
10 Year Note	2.41	2.00	1.68	1.92	0.70	0.66	0.69	0.85	1.00	1.10	1.20	1.30	1.35	1.40	1.45	1.50
30 Year Bond	2.81	2.52	2.12	2.39	1.35	1.41	1.46	1.60	1.75	1.90	2.05	2.15	2.20	2.20	2.25	2.30

Forecast as of: November 10, 2020

<sup>1</sup> Quarterly Average of Daily Close

Source: Federal Reserve Board and Wells Fargo Securities

## What Are We Watching in the Month Ahead?

- What will it take to get higher Treasury yields?
  - U.S. equity markets have recouped their losses, **but at roughly 95 bps, the 10-year Treasury yield is only up about 25 bps since the end of March.** What will it take to see higher yields?
  - **First, markets need to price in some rate hikes eventually.**
    - The OIS market implies no fed funds hikes for most of the 2020s. If markets are convinced the fed funds rate will be near zero for most of the decade, to some extent this caps yields even at the back end of the curve.
  - **Second, markets need to believe that higher inflation is on the way.**
    - While inflation expectations as measured by 10-year breakevens have recovered most of their decline since February, they remain stuck around 1.7% despite the Fed's move to average inflation targeting.
  - **Third, with the election over, the focus turns back squarely to COVID.**
    - Uncertainty around the election has begun to fade, and the promising news on the vaccine front is encouraging to the medium-term outlook. But, surging COVID cases in the northern hemisphere amid the colder weather present a serious challenge, and how the world's major economies weather the next several months will be critical to the longer-run recovery.

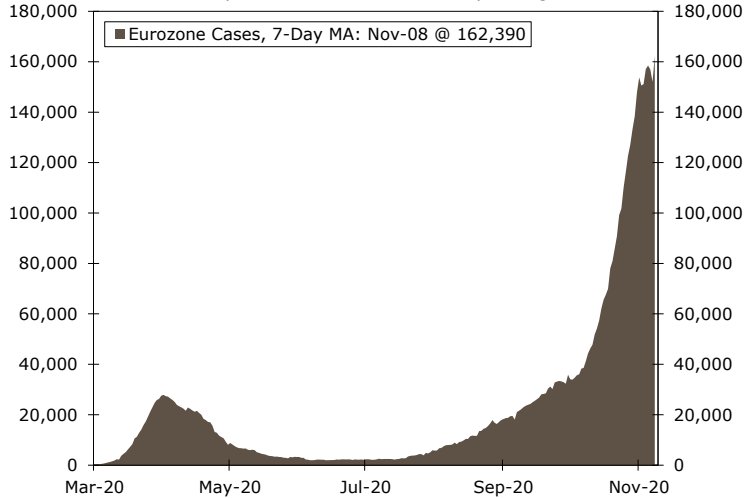
## COVID Cases Surging in the Eurozone, U.K.

- There has been a resurgence in the spread of COVID in Europe such that new cases have increased on average by 162,000 cases per day across the Eurozone over the past week. In response, several Eurozone governments have re-imposed partial restrictions in recent weeks, either on a regional or national basis.
- The story in the United Kingdom is not much different. COVID cases have accelerated sharply over the past couple months, and the deterioration in the public health situation has been accompanied by new restrictions on private activity.

## Recovery Eventually, but Long Road Ahead

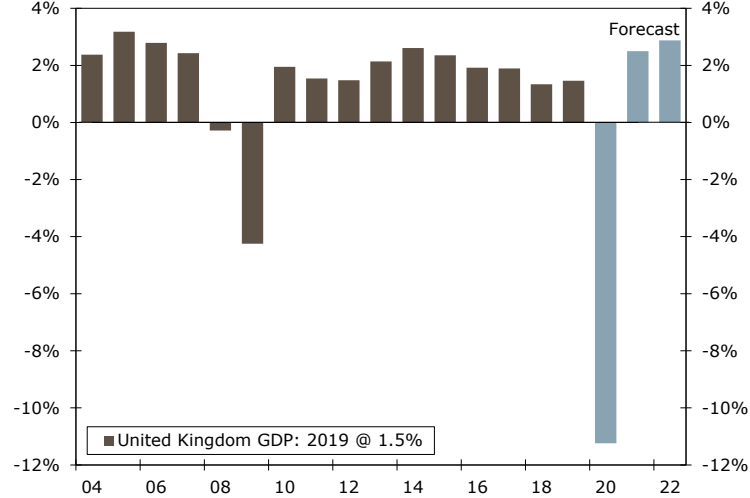
- Ultimately, we suspect that a short-term reduction in COVID cases, a medium-term resolution to the virus via vaccines/therapeutics and additional monetary and fiscal stimulus will get the Eurozone and United Kingdom economies back on the road to recovery. But, that road looks longer and rockier than it did even just a month ago.
- We forecast Eurozone Q4 GDP will decline 3% quarter-over-quarter (not annualized), and look for a 1.5% decline in Q4 GDP in the United Kingdom. In contrast, we anticipate U.S. Q4 GDP will grow about 1% on a non-annualized basis.

**Eurozone COVID-19 Cases**  
Daily New Confirmed Cases, 7-Day Average



Source: Bloomberg LP, International Monetary Fund and Wells Fargo Securities

**United Kingdom GDP Growth**  
Year-over-Year Percent Change



## Wells Fargo Central Bank Policy Forecasts

Central Bank	Current Policy Rate	Last Major Policy Change	WF Next Forecasted Policy Change
United States (FOMC)	0.25%	August 2020 <i>Announced it will adopt a flexible form of "average inflation targeting" such that it will aim to "achieve inflation that averages 2% over time"</i>	No change through Q1-2022
Eurozone (ECB)	-0.50% (Deposit Rate)	June 2020 <i>Expanded its Pandemic Emergency Purchase Program (PEPP) purchases by €600B, extended the horizon for PEPP purchases to June 2021 and provided some guidance on PEPP reinvestments</i>	Announce a €500B increase in PEPP purchases in December and extend its purchase program through until at least Dec. 2021
United Kingdom (BoE)	0.10%	November 2020 <i>Announced a £150B increase in its asset purchase target to £895B</i>	No change through Q1-2022
Japan (BoJ)	-0.10%	April 2020 <i>Raised its purchase target for corporate bonds and commercial paper to ¥20T</i>	No change through Q1-2022
Canada (BoC)	0.25%	April 2020 <i>Announced two new asset purchases programs, a provincial bond purchase program of C\$50B and corporate bond purchase program of C\$10B</i>	No change through Q1-2022

Forecast as of: November 10, 2020

Source: Bloomberg LP and Wells Fargo Securities

## What Are We Watching in the Month Ahead?

### European Central Bank

- **We expect the ECB at its December 10 meeting to announce a €500B increase in Pandemic Emergency Program purchases, to a total program size of €1,850B.** We also expect the ECB to extend its purchase program through at least December 2021, from June 2021.

### Bank of Japan

- **We do not anticipate any further easing from the BoJ,** though we see the risks as skewed toward some type of more accommodative policy.

### Bank of England

- **We do not anticipate any further easing from the BoE,** though we see the risks as skewed toward some type of more accommodative policy.

### Bank of Canada

- **We do not anticipate any further easing from the BoC,** though we see the risks as skewed toward some type of more accommodative policy.



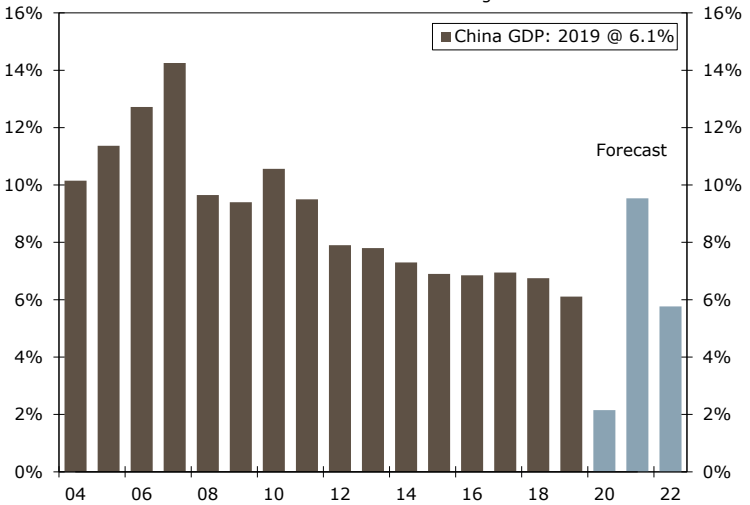
## Asia an Economic Bright Spot

- Outside of the United States, Asia continues to be the bright spot of the global economy. Virus containment has been largely successful across much of the continent, and not just in China but also in fairly dense, well-developed democracies like South Korea and Japan.
- China's outperformance is remarkable, and its economy appears poised to grow 5%-6% in Q4 compared to the year-ago period. In addition to effective virus containment, China has implemented the most fiscal stimulus in emerging Asia, which has contributed to the relatively robust recovery.

## But Global Economy Is Interlocked

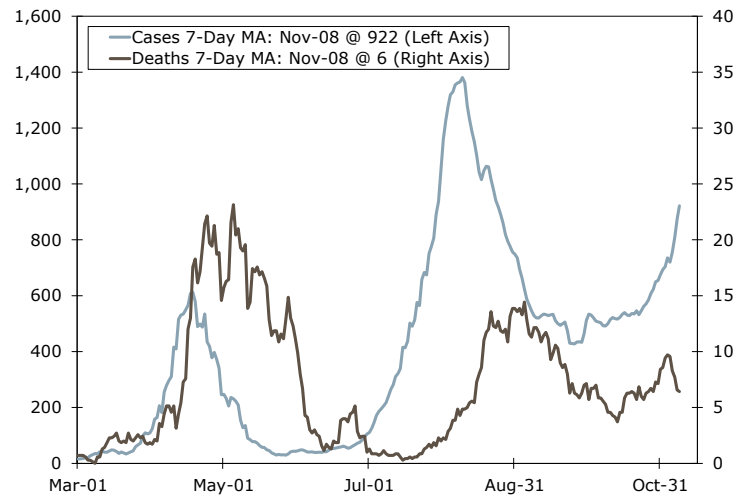
- But as Europe has exhibited, COVID can go from being relatively under control to widespread in a matter of weeks. And if economic conditions weaken too much in the Eurozone, the United Kingdom and elsewhere, it will be difficult for the major Asian economies to escape this downward pull. Recent positive vaccine news are encouraging, but the global economy will still need to weather a difficult winter before a vaccine is approved and widely available.
- Our forecast for global growth in 2020 is roughly flat compared to October, but we have brought down our 2021 forecast by about 0.6 percentage points.

China GDP Growth  
Year-over-Year Percent Change



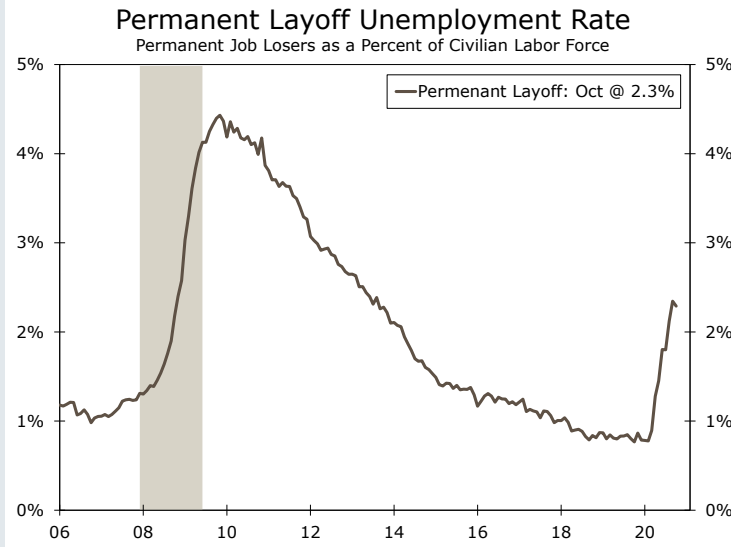
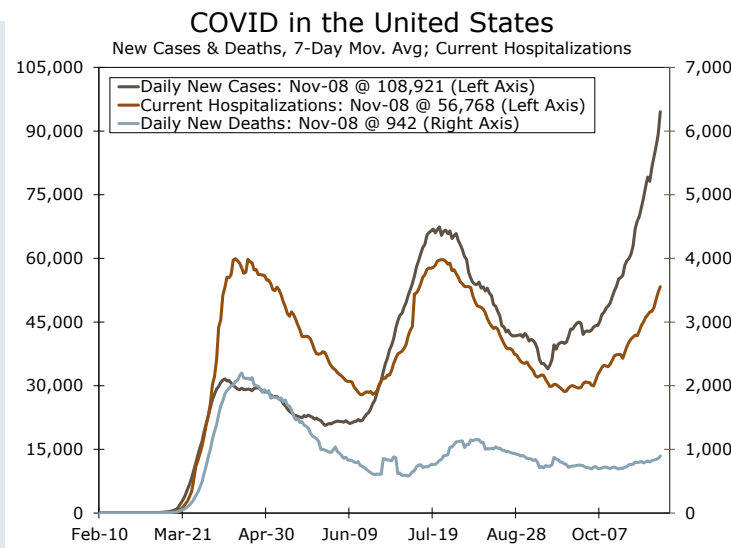
Source: International Monetary Fund, Bloomberg LP and Wells Fargo Securities

Japan COVID-19 New Cases & Deaths



## Joe Biden Elected 46th President of the United States

- Over the weekend, most of the major U.S. media networks declared Joe Biden the winner of the election. As of this writing, Joe Biden received 279 electoral votes to Donald Trump's 214, with four states (Arizona, North Carolina, Georgia and Alaska) still uncalled.
- In the Senate, the split is currently 48-48, with Republicans leading in two Senate races (North Carolina and Alaska) that remain uncalled. Assuming Republicans ultimately hold these two seats, the Senate would be 50-48, with the two remaining seats both in Georgia, where an unusual double runoff election would occur on January 5.
- Should Democrats manage to take both of those seats, this would put the Senate at a 50-50 tie, with the tie broken by Vice President Kamala Harris. Thus, Democrats maintain an outside shot at taking back the Senate, although they should probably be considered underdogs.
- Although the election uncertainty has begun to dissipate, the economic policy outlook in Washington, D.C., still has plenty of questions. Negotiations over another COVID relief bill are likely to restart during the lame duck session of Congress. But, will Democrats want to wait until after the Georgia special elections and Joe Biden takes office? And how will President Trump feel about signing a COVID relief bill on his way out of office?
- Furthermore, the federal government needs to be funded past December 11, creating both a natural deadline by which COVID relief could be achieved, but also adding another wrinkle to the ongoing negotiations. As the important actors in these fiscal developments begin to stake out their positions, we will update our readers on our thinking accordingly.



Source: Bloomberg LP, U.S. Department of Labor and Wells Fargo Securities

## Wells Fargo Securities U.S. Economic Forecast

	Actual								Forecast								Actual		Forecast	
	2019				2020				2021				2022				2019	2020	2021	2022
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q				
Real Gross Domestic Product (a)	2.9	1.5	2.6	2.4	-5.0	-31.4	33.1	4.5	4.0	3.1	2.9	2.8	2.8	2.9	2.6	2.4	2.2	-3.5	4.2	2.8
Personal Consumption	1.8	3.7	2.7	1.6	-6.9	-33.2	40.7	4.9	3.5	3.3	3.1	2.9	2.7	2.7	2.5	2.2	2.4	-3.8	4.7	2.8
Business Fixed Investment	4.2	0.0	1.9	-0.3	-6.7	-27.2	20.3	9.0	3.7	4.2	4.9	4.9	5.4	5.2	5.2	5.0	2.9	-4.5	4.6	5.1
Equipment	2.0	-3.8	-1.7	-1.7	-15.2	-35.9	70.1	12.4	5.0	6.0	6.2	6.8	7.1	6.4	6.1	5.8	2.1	-5.5	9.8	6.5
Intellectual Property Products	4.5	4.1	5.3	4.6	2.4	-11.4	-1.0	1.6	3.0	4.8	6.8	6.3	6.3	5.5	5.6	5.1	6.4	0.0	2.3	5.9
Structures	8.2	1.6	3.6	-5.3	-3.7	-33.6	-14.6	4.5	1.5	-1.5	-2.2	-3.4	-1.4	1.3	1.9	2.1	-0.6	-10.1	-4.2	-0.8
Residential Investment	-1.7	-2.1	4.6	5.8	19.0	-35.6	59.3	17.0	5.5	8.0	7.5	7.0	6.5	6.5	6.0	6.0	-1.7	4.7	10.5	6.7
Government Purchases	2.5	5.0	2.1	2.4	1.3	2.5	-4.5	-1.7	-0.2	-0.6	-0.4	0.2	0.2	0.5	0.5	0.8	2.3	1.1	-0.9	0.2
Net Exports	-907.4	-951.4	-950.2	-861.5	-788.0	-775.1	-1010.8	-1053.7	-1046.7	-1036.0	-1031.6	-1035.7	-1039.4	-1043.1	-1053.9	-1064.8	-917.6	-906.9	-1037.5	-1050.3
Pct. Point Contribution to GDP	0.6	-0.8	0.0	1.5	1.1	0.6	-3.1	-0.9	0.2	0.2	0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	0.1	-0.7	-0.1
Inventory Change	101.7	49.4	44.0	-1.1	-80.9	-287.0	-1.0	60.0	95.0	85.0	75.0	70.0	70.0	70.0	70.0	70.0	48.5	-77.2	81.3	70.0
Pct. Point Contribution to GDP	0.2	-1.0	-0.1	-0.8	-1.3	-3.5	6.6	1.3	0.7	-0.2	-0.2	-0.1	0.0	0.0	0.0	0.0	0.0	-0.7	0.9	-0.1
Nominal GDP (a)	4.0	4.1	4.0	3.9	-3.4	-32.8	38.0	6.4	5.5	4.7	4.7	4.6	4.6	4.7	4.5	4.2	4.0	-2.3	5.9	4.6
Real Final Sales	2.7	2.5	2.7	3.2	-3.6	-28.1	25.5	3.6	3.3	3.4	3.2	2.9	2.8	2.9	2.6	2.4	2.2	-2.9	3.4	2.9
Retail Sales (b)	2.7	3.4	3.9	4.0	1.2	-7.7	3.6	6.9	9.1	18.1	4.5	1.2	1.9	2.2	2.3	2.7	3.5	1.0	7.8	2.3
Inflation Indicators (b)																				
PCE Deflator	1.4	1.5	1.5	1.5	1.7	0.6	1.2	1.3	1.3	2.1	1.6	1.6	1.7	1.7	1.8	1.8	1.5	1.2	1.7	1.7
"Core" PCE Deflator	1.7	1.7	1.8	1.6	1.8	1.0	1.4	1.5	1.5	2.1	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.4	1.7	1.7
Consumer Price Index	1.6	1.8	1.8	2.0	2.1	0.4	1.3	1.2	1.3	2.6	1.7	1.8	2.0	2.0	2.1	2.1	1.8	1.2	1.9	2.0
"Core" Consumer Price Index	2.1	2.1	2.3	2.3	2.2	1.3	1.7	1.7	1.7	2.5	1.8	1.8	1.9	1.9	1.9	2.0	2.2	1.7	1.9	1.9
Producer Price Index (Final Demand)	1.9	2.0	1.6	1.1	1.1	-1.0	0.0	0.5	1.1	3.0	2.4	2.1	2.1	2.1	2.2	2.2	1.7	0.1	2.2	2.1
Employment Cost Index	2.8	2.7	2.8	2.7	2.8	2.7	2.4	2.2	1.8	1.7	1.7	1.8	2.0	2.1	2.2	2.2	2.7	2.5	1.8	2.1
Real Disposable Income (b)	3.2	2.1	1.8	1.6	1.4	11.9	6.4	4.7	3.5	-5.8	-1.3	0.9	2.0	2.3	2.7	2.7	2.2	6.1	-0.8	2.4
Nominal Personal Income (b)	4.7	4.1	3.5	3.5	3.2	10.4	6.8	5.0	3.8	-3.0	0.3	2.6	3.8	4.1	4.5	4.5	3.9	6.3	0.9	4.2
Industrial Production (a)	-1.9	-2.3	1.1	0.4	-6.8	-42.9	39.8	3.8	5.0	5.0	5.7	3.6	3.5	4.2	4.4	2.5	0.9	-7.4	4.4	4.1
Capacity Utilization	78.6	77.8	77.6	77.2	75.8	65.9	71.7	73.0	73.8	74.7	75.7	76.4	77.1	77.8	78.7	79.1	77.8	71.6	75.2	78.2
Corporate Profits Before Taxes (b)	-1.1	1.7	-0.5	1.3	-6.7	-19.3	-6.0	-2.0	8.0	22.0	10.0	3.0	4.0	5.0	3.0	4.0	0.3	-8.5	10.2	4.0
Corporate Profits After Taxes	-3.3	0.5	-0.3	1.3	-5.7	-18.8	-6.4	-1.2	7.3	22.2	10.0	2.9	3.8	5.0	2.9	4.1	-0.4	-8.0	10.1	3.9
Federal Budget Balance (c)	-372	-56	-237	-357	-387	-2001	-388	-495	-611	-270	-424	-404	-527	-142	-327	-336	-984	-3132	-1800	-1400
Trade Weighted Dollar Index (d)	109.8	109.7	111.0	109.8	112.7	110.3	106.6	105.5	105.0	104.3	103.8	103.3	102.8	102.3	101.8	101.8	110.1	108.8	104.1	102.1
Nonfarm Payroll Change (e)	139	159	203	210	-303	-4427	1309	563	450	328	283	270	257	243	227	213	178	-715	333	235
Unemployment Rate	3.9	3.6	3.6	3.5	3.8	13.0	8.8	6.8	6.7	6.5	6.2	5.9	5.6	5.3	5.0	4.7	3.7	8.1	6.3	5.2
Housing Starts (f)	1.20	1.26	1.29	1.43	1.48	1.08	1.43	1.45	1.40	1.40	1.40	1.40	1.43	1.43	1.43	1.43	1.29	1.36	1.40	1.43
Light Vehicle Sales (g)	16.9	17.0	17.0	16.8	15.0	11.3	15.3	16.2	15.8	15.6	15.7	16.1	16.1	16.8	16.7	17.1	17.0	14.4	15.8	16.7
Crude Oil - Brent - Front Contract (h)	63.8	67.6	61.5	61.7	51.0	34.7	43.8	43.0	42.0	49.0	47.0	50.0	53.0	55.0	57.0	55.0	63.6	43.1	47.0	55.0
Quarter-End Interest Rates (i)																				
Federal Funds Target Rate	2.50	2.50	2.00	1.75	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	2.25	0.25	0.25	0.25
Secured Overnight Financing Rate (h)	2.43	2.43	2.28	1.67	1.23	0.05	0.09	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	2.20	0.37	0.10	0.10
3 Month LIBOR	2.60	2.32	2.09	1.91	1.45	0.30	0.23	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	2.33	0.56	0.25	0.25
Prime Rate	5.50	5.50	5.00	4.75	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	5.25	3.25	3.25	3.25
Conventional Mortgage Rate	4.28	3.80	3.61	3.72	3.45	3.16	2.89	2.80	2.80	2.85	2.90	3.00	3.05	3.10	3.15	3.20	3.94	3.08	2.89	3.13
3 Month Bill	2.40	2.12	1.88	1.55	0.11	0.16	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	2.11	0.12	0.10	0.10
6 Month Bill	2.44	2.09	1.83	1.60	0.15	0.18	0.11	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	2.11	0.14	0.10	0.10
1 Year Bill	2.40	1.92	1.75	1.59	0.17	0.16	0.12	0.15	0.15	0.15	0.15	0.15	0.20	0.20	0.25	0.25	2.05	0.15	0.15	0.23
2 Year Note	2.27	1.75	1.63	1.58	0.23	0.16	0.13	0.15	0.20	0.20	0.20	0.25	0.25	0.30	0.35	0.45	1.97	0.17	0.21	0.34
5 Year Note	2.23	1.76	1.55	1.69	0.37	0.29	0.28	0.35	0.40	0.45	0.55	0.65	0.70	0.75	0.85	0.95	1.95	0.32	0.51	0.81
10 Year Note	2.41	2.00	1.68	1.92	0.70	0.66	0.69	0.85	1.00	1.10	1.20	1.30	1.35	1.40	1.45	1.50	2.14	0.73	1.15	1.43
30 Year Bond	2.81	2.52	2.12	2.39	1.35	1.41	1.46	1.60	1.75	1.90	2.05	2.15	2.20	2.20	2.25	2.30	2.58	1.46	1.96	2.24

Forecast as of: November 10, 2020

Notes: (a) Compound Annual Growth Rate Quarter-over-Quarter  
 (b) Year-over-Year Percentage Change  
 (c) Quarterly Sum - Billions USD; Annual Data Represents Fiscal Yr.  
 (d) Federal Reserve Advanced Foreign Economies Index, 2006=100 - Quarter End  
 (e) Average Monthly Change

(f) Millions of Units - Annual Data - Not Seasonally Adjusted  
 (g) Quarterly Data - Average Monthly SAAR; Annual Data - Actual Total Vehicles Sold  
 (h) Quarterly Average of Daily Close  
 (i) Annual Numbers Represent Averages

Source: U.S. Department of Commerce, U.S. Department of Labor, IHS Markit, Federal Reserve Board and Wells Fargo Securities

# U.S. Economic Forecast: Change Since October 07, 2020

## Changes to the Wells Fargo Securities U.S. Economic Forecast

	Actual								Forecast								Actual				Forecast							
	2019				2020				2021				2022				2019	2020	2021	2022	2019	2020	2021	2022				
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q												
Real Gross Domestic Product (a)	0.00	0.00	0.00	0.00	0.00	0.00	4.47	-1.58	-1.26	-0.82	0.07	0.47	0.13	0.02	0.00	-0.17	0.00	0.32	-0.28	0.07	0.00	0.07	-0.50	0.19	0.00	0.07	-0.50	0.19
Personal Consumption	0.00	0.00	0.00	0.00	0.00	0.00	1.58	-1.08	-1.65	-0.28	-0.07	0.60	0.40	0.16	-0.03	-0.29	0.00	0.07	-0.50	0.19	0.00	0.07	-0.50	0.19	0.00	0.07	-0.50	0.19
Business Fixed Investment	0.00	0.00	0.00	0.00	0.00	0.00	9.60	4.52	0.24	0.24	0.17	0.04	0.05	0.04	0.03	0.02	0.00	1.24	2.02	0.07	0.00	1.24	2.02	0.07	0.00	1.24	2.02	0.07
Equipment	0.00	0.00	0.00	0.00	0.00	0.00	31.39	4.85	1.45	0.45	0.32	-0.02	0.01	0.01	0.01	0.01	0.00	2.72	4.04	0.07	0.00	2.72	4.04	0.07	0.00	2.72	4.04	0.07
Intellectual Property Products	0.00	0.00	0.00	0.00	0.00	0.00	-0.40	0.85	-1.24	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	-0.20	0.00	0.00	0.00	-0.20	0.00	0.00	0.00	-0.20	0.00
Structures	0.00	0.00	0.00	0.00	0.00	0.00	4.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.66	0.00	0.00	0.57	0.66	0.00	0.00	0.57	0.66	0.00
Residential Investment	0.00	0.00	0.00	0.00	0.00	0.00	9.29	1.00	-3.50	1.00	0.50	0.50	0.00	-0.50	-0.75	-0.50	0.00	0.87	0.37	-0.01	0.00	0.87	0.37	-0.01	0.00	0.87	0.37	-0.01
Government Purchases	0.00	0.00	0.00	0.00	0.00	0.00	-1.33	0.73	0.82	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.13	0.21	0.01	0.00	-0.13	0.21	0.01	0.00	-0.13	0.21	0.01
Net Exports	0.0	0.0	0.0	0.0	0.0	0.0	-82.8	-73.1	-45.4	-49.0	-46.3	-50.9	-54.20	-53.97	-52.88	-51.78	0.00	-39.00	-47.88	-53.21	0.00	-39.00	-47.88	-53.21	0.00	-39.00	-47.88	-53.21
Pct. Point Contribution to GDP	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.22	0.59	-0.08	0.06	-0.10	-0.07	0.00	0.02	0.02	0.00	-0.20	-0.05	-0.03	0.00	-0.20	-0.05	-0.03	0.00	-0.20	-0.05	-0.03
Inventory Change	0.00	0.00	0.00	0.00	0.00	0.00	117.03	70.00	35.00	5.00	0.00	10.00	5.00	0.00	0.00	0.00	0.00	46.76	13.75	1.25	0.00	46.76	13.75	1.25	0.00	46.76	13.75	1.25
Pct. Point Contribution to GDP	0.00	0.00	0.00	0.00	0.00	0.00	2.65	-1.05	-0.76	-0.63	0.00	0.10	-0.10	-0.10	0.00	0.00	0.00	0.24	-0.18	-0.07	0.00	0.24	-0.18	-0.07	0.00	0.24	-0.18	-0.07
Nominal GDP	0.00	0.00	0.00	0.00	0.00	0.00	3.70	-1.43	-1.35	-0.83	0.07	0.48	0.13	0.02	0.00	-0.18	0.00	0.25	-0.36	0.07	0.00	0.25	-0.36	0.07	0.00	0.25	-0.36	0.07
Real Final Sales	0.00	0.00	0.00	0.00	0.00	0.00	0.55	-0.02	-0.46	-0.16	0.07	0.36	0.24	0.13	0.00	-0.17	0.00	0.05	-0.06	0.14	0.00	0.05	-0.06	0.14	0.00	0.05	-0.06	0.14
Retail Sales (b)	0.00	0.00	-0.03	0.00	0.00	0.00	0.45	3.81	3.47	3.75	2.91	-0.40	0.00	0.00	0.00	0.00	-0.01	1.08	2.31	0.00	0.00	1.08	2.31	0.00	0.00	1.08	2.31	0.00
Inflation Indicators (b)																												
PCE Deflator	0.00	0.00	0.00	0.00	0.00	0.00	-0.14	-0.11	-0.13	-0.13	0.01	-0.02	0.00	0.00	0.00	0.00	0.00	-0.06	-0.06	0.00	0.00	-0.06	-0.06	0.00	0.00	-0.06	-0.06	0.00
"Core" PCE Deflator	0.00	0.00	0.00	0.00	0.00	0.00	-0.15	-0.18	-0.18	-0.18	-0.03	0.00	0.00	0.00	0.00	0.00	0.00	-0.08	-0.10	0.00	0.00	-0.08	-0.10	0.00	0.00	-0.08	-0.10	0.00
Consumer Price Index	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.04	-0.08	-0.11	-0.11	-0.07	-0.02	0.00	0.00	0.00	0.00	-0.01	-0.09	-0.01	0.00	-0.01	-0.09	-0.01	0.00	-0.01	-0.09	-0.01
"Core" Consumer Price Index	0.00	0.00	0.00	0.00	0.00	0.00	-0.02	-0.13	-0.16	-0.18	-0.17	-0.06	-0.03	-0.01	0.00	0.00	0.00	-0.04	-0.14	-0.01	0.00	-0.04	-0.14	-0.01	0.00	-0.04	-0.14	-0.01
Producer Price Index (Final Demand)	0.00	0.00	0.00	0.00	0.00	0.00	-0.08	0.06	0.12	0.12	0.21	0.07	0.00	0.00	0.00	0.00	0.00	0.02	0.10	0.00	0.00	0.02	0.10	0.00	0.00	0.02	0.10	0.00
Employment Cost Index	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.40	0.33	-0.05	-0.32	-0.25	0.49	0.32	0.18	0.15	0.00	0.21	-0.07	0.29	0.00	0.21	-0.07	0.29	0.00	0.21	-0.07	0.29
Real Disposable Income (b)	0.00	0.00	0.00	0.00	0.00	0.00	0.68	0.50	0.69	0.64	0.04	0.20	-0.01	-0.01	-0.01	0.01	0.00	0.29	0.40	-0.01	0.00	0.29	0.40	-0.01	0.00	0.29	0.40	-0.01
Nominal Personal Income (b)	0.00	0.00	0.00	0.00	0.00	0.00	0.58	0.39	0.57	0.54	0.01	0.19	-0.01	-0.01	-0.01	0.01	0.00	0.24	0.33	-0.01	0.00	0.24	0.33	-0.01	0.00	0.24	0.33	-0.01
Industrial Production (a)	0.00	0.00	0.00	0.00	0.00	0.28	0.46	-4.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.13	-0.75	0.00	0.00	-0.13	-0.75	0.00	0.00	-0.13	-0.75	0.00
Capacity Utilization	0.00	0.00	0.00	0.00	0.00	0.08	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.06	0.00	0.00
Corporate Profits Before Taxes (b)	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.01	-0.04	-0.01	0.00	1.01	-0.04	-0.01	0.00	1.01	-0.04	-0.01
Corporate Profits After Taxes	0.00	0.00	0.00	0.00	0.00	0.00	2.10	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.09	-0.04	-0.01	0.00	1.09	-0.04	-0.01	0.00	1.09	-0.04	-0.01
Federal Budget Balance (c)	0.00	0.00	0.00	0.00	0.00	0.00	168.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	168.08	0.00	0.00	0.00	168.08	0.00	0.00	0.00	168.08	0.00	0.00
Trade Weighted Dollar Index (d)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-1.75	-0.75	-0.75	-0.75	-0.75	-0.75	-0.75	-0.75	-0.75	0.00	-0.44	-0.75	-0.75	0.00	-0.44	-0.75	-0.75	0.00	-0.44	-0.75	-0.75
Nonfarm Payroll Change (e)	0.00	0.00	0.00	0.00	0.00	0.00	5.00	-4.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.25	0.00	0.00	0.00	0.25	0.00	0.00
Unemployment Rate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.77	-0.47	-0.27	-0.07	0.00	0.00	0.00	0.00	0.00	0.00	-0.19	-0.20	0.00	0.00	-0.19	-0.20	0.00	0.00	-0.19	-0.20	0.00
Housing Starts (f)	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	0.05	0.02	0.03	0.03	0.01	0.03	0.03	0.03	0.03	0.00	0.01	0.02	0.03	0.00	0.01	0.02	0.03	0.00	0.01	0.02	0.03
Light Vehicle Sales (g)	0.00	0.00	0.00	0.00	0.00	0.00	-0.05	1.89	1.33	0.77	0.40	0.73	0.52	1.15	1.00	1.22	0.00	0.46	0.81	0.97	0.00	0.46	0.81	0.97	0.00	0.46	0.81	0.97
Crude Oil - Brent - Front Contract (h)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-1.00	-2.00	0.00	-2.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.25	-1.00	0.00	0.00	-0.25	-1.00	0.00	0.00	-0.25	-1.00	0.00
Quarter-End Interest Rates (i)																												
Federal Funds Target Rate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Secured Overnight Financing Rate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3 Month LIBOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Prime Rate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Conventional Mortgage Rate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3 Month Bill	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	-0.05	0.00	-0.01	-0.05	-0.05	0.00	-0.01	-0.05	-0.05	0.00	-0.01	-0.05	-0.05
2 Year Note	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5 Year Note	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.00	0.01	0.05	0.05	0.00	0.						

## Wells Fargo International Economic Forecast

(Year-over-Year Percent Change)

	GDP				CPI			
	2019	2020	2021	2022	2019	2020	2021	2022
Global (PPP Weights)	2.8%	-4.0%	5.6%	3.5%	3.5%	3.2%	3.1%	3.3%
Advanced Economies <sup>1</sup>	1.7%	-5.2%	3.9%	3.0%	1.4%	0.8%	1.3%	1.6%
United States	2.2%	-3.5%	4.2%	2.8%	1.8%	1.2%	1.9%	2.0%
Eurozone	1.3%	-7.4%	3.7%	2.9%	1.2%	0.3%	0.7%	1.1%
United Kingdom	1.5%	-11.2%	2.5%	2.9%	1.8%	0.9%	1.4%	1.6%
Japan	0.7%	-5.8%	2.4%	2.0%	0.5%	0.1%	0.1%	0.6%
Canada	1.7%	-5.6%	4.2%	2.8%	1.9%	0.6%	1.7%	2.0%
Switzerland	1.2%	-4.3%	2.6%	1.8%	0.4%	-0.7%	0.1%	0.5%
Australia	1.8%	-3.6%	2.7%	3.0%	1.6%	0.7%	1.6%	1.8%
New Zealand	2.2%	-5.2%	5.3%	3.3%	1.6%	1.4%	1.6%	1.8%
Sweden	1.3%	-4.0%	3.6%	3.2%	1.6%	0.6%	1.2%	1.4%
Norway	1.2%	-3.8%	3.6%	2.5%	2.2%	1.4%	2.3%	2.0%
Developing Economies <sup>1</sup>	3.7%	-3.0%	7.0%	4.0%	5.1%	5.0%	4.4%	4.6%
China	6.1%	2.2%	9.5%	5.8%	2.9%	2.8%	2.0%	2.3%
India	4.2%	-9.0%	9.9%	5.8%	4.8%	6.3%	4.4%	4.6%
Mexico	-0.3%	-9.2%	3.3%	2.8%	3.6%	3.5%	3.8%	3.5%
Brazil	1.1%	-5.7%	3.8%	2.7%	3.7%	2.6%	3.0%	3.4%

Forecast as of: November 10, 2020

<sup>1</sup>Aggregated Using PPP Weights

Source: International Monetary Fund and Wells Fargo Securities

## Changes to the Wells Fargo International Economic Forecast

	GDP				CPI			
	2019	2020	2021	2022	2019	2020	2021	2022
Global (PPP Weights)	-0.10%	0.07%	-0.63%	-0.08%	-0.05%	-0.05%	-0.04%	-0.03%
Advanced Economies <sup>1</sup>	-0.06%	0.44%	-0.85%	0.16%	0.00%	-0.05%	-0.13%	-0.10%
United States	0.00%	0.32%	-0.28%	0.07%	0.00%	-0.01%	-0.09%	-0.01%
Eurozone	-0.01%	0.88%	-1.53%	0.35%	0.00%	-0.09%	-0.37%	-0.30%
United Kingdom	0.05%	-0.61%	-3.02%	0.00%	0.00%	0.12%	0.10%	-0.18%
Japan	0.01%	0.23%	0.25%	0.00%	0.00%	-0.02%	-0.03%	-0.07%
Canada	0.00%	0.08%	-1.67%	0.31%	0.00%	-0.02%	-0.03%	0.00%
Switzerland	0.33%	-0.60%	-2.44%	0.00%	0.00%	0.00%	0.10%	0.10%
Australia	0.04%	-0.26%	-0.53%	0.00%	0.00%	-0.10%	0.00%	0.00%
New Zealand	0.04%	0.00%	-0.21%	0.00%	0.00%	0.10%	0.20%	0.00%
Sweden	0.03%	0.25%	-0.38%	0.19%	-0.06%	0.00%	0.00%	0.00%
Norway	0.00%	-0.01%	-0.09%	0.00%	0.00%	0.00%	0.00%	0.00%
Developing Economies <sup>1</sup>	-0.03%	-0.09%	-0.33%	-0.20%	0.08%	0.14%	0.16%	0.16%
China	0.00%	-0.24%	-0.34%	0.00%	0.00%	-0.03%	-0.08%	0.00%
India <sup>2</sup>	0.00%	0.00%	0.00%	0.00%	0.23%	0.80%	0.88%	0.63%
Mexico	0.00%	1.40%	-0.04%	-0.33%	0.00%	-0.02%	-0.05%	0.00%
Brazil	0.00%	0.00%	-0.03%	-0.23%	0.00%	0.00%	0.00%	0.00%

Forecast as of: November 10, 2020

<sup>1</sup>Aggregated Using PPP Weights

Source: International Monetary Fund and Wells Fargo Securities

## Wells Fargo International Interest Rate Forecast

(End of Quarter Rates)

	Central Bank Key Policy Rate					
	2020	2021				2022
	Q4	Q1	Q2	Q3	Q4	Q1
United States	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%
Eurozone <sup>1</sup>	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%	-0.50%
United Kingdom	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%
Japan	-0.10%	-0.10%	-0.10%	-0.10%	-0.10%	-0.10%
Canada	0.25%	0.25%	0.25%	0.25%	0.25%	0.25%
	2-Year Note					
	2020	2021				2022
	Q4	Q1	Q2	Q3	Q4	Q1
United States	0.15%	0.20%	0.20%	0.20%	0.25%	0.25%
Eurozone <sup>2</sup>	-0.70%	-0.70%	-0.65%	-0.60%	-0.50%	-0.45%
United Kingdom	-0.05%	0.00%	0.05%	0.10%	0.15%	0.15%
Japan	-0.10%	-0.05%	0.00%	0.05%	0.05%	0.05%
Canada	0.30%	0.35%	0.35%	0.35%	0.40%	0.40%
	10-Year Note					
	2020	2021				2022
	Q4	Q1	Q2	Q3	Q4	Q1
United States	0.85%	1.00%	1.10%	1.20%	1.30%	1.35%
Eurozone <sup>2</sup>	-0.55%	-0.40%	-0.30%	-0.20%	-0.15%	-0.10%
United Kingdom	0.30%	0.40%	0.45%	0.50%	0.55%	0.60%
Japan	0.05%	0.10%	0.10%	0.15%	0.15%	0.15%
Canada	0.75%	0.90%	1.00%	1.05%	1.15%	1.20%

Forecast as of: November 10, 2020

<sup>1</sup> ECB Deposit Rate <sup>2</sup> German Government Bond Yield

Source: International Monetary Fund and Wells Fargo Securities

## Wells Fargo International Interest Rate Forecast

(End of Quarter Rates)

	Central Bank Key Policy Rate					
	2020	2021				2022
	Q4	Q1	Q2	Q3	Q4	Q1
United States	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Eurozone <sup>1</sup>	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
United Kingdom	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Japan	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Canada	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

	2-Year Note					
	2020	2021				2022
	Q4	Q1	Q2	Q3	Q4	Q1
United States	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Eurozone <sup>2</sup>	-0.10%	-0.10%	-0.10%	-0.10%	-0.10%	-0.10%
United Kingdom	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Japan	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Canada	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

	10-Year Note					
	2020	2021				2022
	Q4	Q1	Q2	Q3	Q4	Q1
United States	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Eurozone <sup>2</sup>	-0.20%	-0.15%	-0.15%	-0.15%	-0.15%	-0.15%
United Kingdom	-0.05%	-0.05%	-0.05%	-0.05%	-0.05%	-0.05%
Japan	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Canada	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Forecast as of: November 10, 2020

<sup>1</sup> ECB Deposit Rate <sup>2</sup> German Government Bond Yield

Source: International Monetary Fund and Wells Fargo Securities



## Economists

Jay H. Bryson, Chief Economist	<a href="mailto:jay.bryson@wellsfargo.com">jay.bryson@wellsfargo.com</a>
Mark Vitner, Senior Economist	<a href="mailto:mark.vitner@wellsfargo.com">mark.vitner@wellsfargo.com</a>
Sam Bullard, Senior Economist	<a href="mailto:sam.bullard@wellsfargo.com">sam.bullard@wellsfargo.com</a>
Nick Bennenbroek, International Economist	<a href="mailto:nicholas.bennenbroek@wellsfargo.com">nicholas.bennenbroek@wellsfargo.com</a>
Tim Quinlan, Senior Economist	<a href="mailto:tim.quinlan@wellsfargo.com">tim.quinlan@wellsfargo.com</a>
Azhar Iqbal, Econometrician	<a href="mailto:azhar.iqbal@wellsfargo.com">azhar.iqbal@wellsfargo.com</a>
Sarah House, Senior Economist	<a href="mailto:sarah.house@wellsfargo.com">sarah.house@wellsfargo.com</a>
Charlie Dougherty, Economist	<a href="mailto:charles.dougherty@wellsfargo.com">charles.dougherty@wellsfargo.com</a>
Michael Pugliese, Economist	<a href="mailto:michael.d.pugliese@wellsfargo.com">michael.d.pugliese@wellsfargo.com</a>
Brendan McKenna, International Economist	<a href="mailto:brendan.mckenna@wellsfargo.com">brendan.mckenna@wellsfargo.com</a>
Shannon Seery, Economist	<a href="mailto:shannon.seery@wellsfargo.com">shannon.seery@wellsfargo.com</a>

## Economic Analysts

Jen Licis, Economic Analyst	<a href="mailto:jennifer.licis@wellsfargo.com">jennifer.licis@wellsfargo.com</a>
Hop Mathews, Economic Analyst	<a href="mailto:hop.mathews@wellsfargo.com">hop.mathews@wellsfargo.com</a>
Nicole Cervi, Economic Analyst	<a href="mailto:nicole.cervi@wellsfargo.com">nicole.cervi@wellsfargo.com</a>
Sara Cotsakis, Economic Analyst	<a href="mailto:sara.cotsakis@wellsfargo.com">sara.cotsakis@wellsfargo.com</a>

## Administrative Assistants

Coren Burton, Administrative Assistant	<a href="mailto:coren.burton@wellsfargo.com">coren.burton@wellsfargo.com</a>
----------------------------------------	------------------------------------------------------------------------------

Wells Fargo Securities Economics Group publications are produced by Wells Fargo Securities, LLC, a U.S. broker-dealer registered with the U.S. Securities and Exchange Commission, the Financial Industry Regulatory Authority, and the Securities Investor Protection Corp. Wells Fargo Securities, LLC, distributes these publications directly and through subsidiaries including, but not limited to, Wells Fargo & Company, Wells Fargo Bank N.A., Wells Fargo Clearing Services, LLC, Wells Fargo Securities International Limited, Wells Fargo Securities Canada, Ltd., Wells Fargo Securities Asia Limited and Wells Fargo Securities (Japan) Co. Limited. Wells Fargo Securities, LLC. is registered with the Commodities Futures Trading Commission as a futures commission merchant and is a member in good standing of the National Futures Association. Wells Fargo Bank, N.A. is registered with the Commodities Futures Trading Commission as a swap dealer and is a member in good standing of the National Futures Association. Wells Fargo Securities, LLC. and Wells Fargo Bank, N.A. are generally engaged in the trading of futures and derivative products, any of which may be discussed within this publication. Wells Fargo Securities, LLC does not compensate its research analysts based on specific investment banking transactions. Wells Fargo Securities, LLC's research analysts receive compensation that is based upon and impacted by the overall profitability and revenue of the firm which includes, but is not limited to investment banking revenue. The information and opinions herein are for general information use only. Wells Fargo Securities, LLC does not guarantee their accuracy or completeness, nor does Wells Fargo Securities, LLC assume any liability for any loss that may result from the reliance by any person upon any such information or opinions. Such information and opinions are subject to change without notice, are for general information only and are not intended as an offer or solicitation with respect to the purchase or sales of any security or as personalized investment advice. Wells Fargo Securities, LLC is a separate legal entity and distinct from affiliated banks and is a wholly owned subsidiary of Wells Fargo & Company © 2020 Wells Fargo Securities, LLC.

### Important Information for Non-U.S. Recipients

For recipients in the EEA, this report is distributed by Wells Fargo Securities International Limited ("WFSIL"). WFSIL is a U.K. incorporated investment firm authorized and regulated by the Financial Conduct Authority. For the purposes of Section 21 of the UK Financial Services and Markets Act 2000 ("the Act"), the content of this report has been approved by WFSIL, an authorized person under the Act. WFSIL does not deal with retail clients as defined in the Directive 2014/65/EU ("MiFID2"). The FCA rules made under the Financial Services and Markets Act 2000 for the protection of retail clients will therefore not apply, nor will the Financial Services Compensation Scheme be available. This report is not intended for, and should not be relied upon by, retail clients.

SECURITIES: NOT FDIC-INSURED/NOT BANK-GUARANTEED/MAY LOSE VALUE