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# Wells Fargo Economics *Monthly Macro Manual*

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

June 09, 2020

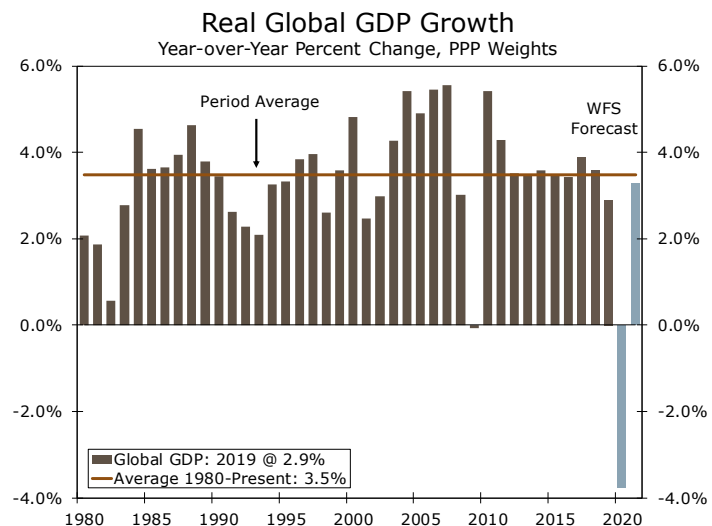
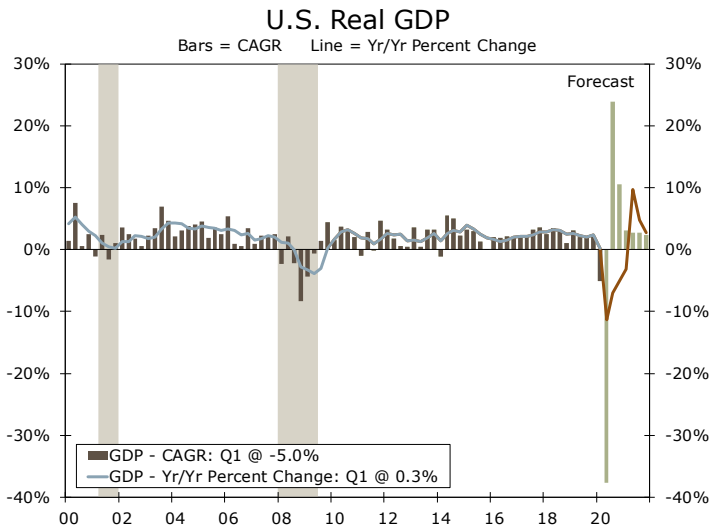
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# Key Takeaways

## Developments since our May Monthly Economic Outlook

- **We have downwardly revised our Q2-2020 real GDP growth forecast and are now looking for a 37.6% annualized contraction.** However, this downward revision has been more than offset by upward revisions to our forecast for real GDP growth in the second half of the year.
- **Through the noise, our labor market forecast remains largely unchanged: Great Depression-level unemployment will not persist, but the unemployment rate will not return to 4% in the next couple years.** We still expect the unemployment rate to be around 6% by year-end 2021.
- We continue to expect relatively weak core inflation readings of sub-1% in H2-2020.
- **We look for the FOMC to keep the fed funds rate at current levels through at least the end of 2021.** Our year-end 2020 forecast for the 10-year Treasury yield has declined slightly to 1.15%.
- **We still expect the global economy to contract 3.7% in 2020.** This is the first time since February we have not revised our 2020 global outlook lower. Much of our stabilizing 2020 global growth outlook, stems from what appears to be a robust rebound in China.



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

# Monthly Macro Calendar: June 8-July 3

Monday	Tuesday	Wednesday	Thursday	Friday
<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
	<b>JOLTS Job Openings</b> Mar 6,191K; Apr 5,750K (C) <b>China Consumer Price Index (YoY)</b> Apr 3.3%; May 2.7% (C)	<b>Consumer Price Index (YoY)</b> Apr 0.3%; May 0.3% (W) <b>FOMC Rate Decision</b> Previous 0.25%; Jun 0.25% (W)	<b>Initial Jobless Claims</b> May 301,877K; Jun 61,550K (C) <b>PPI Final Demand (YoY)</b> Apr -1.2%; May -1.1% (W)	<b>Import Price Index</b> Apr -6.8%; May -6.3% (W) <b>Household Change in Net Worth</b> Q4 \$3,148B
<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>
<b>Kaplan* (Dallas Fed)</b> Speaks to the Money Marketeers	<b>Retail Sales (MoM)</b> Apr -16.4% <b>Industrial Production (MoM)</b> Apr -11.2% <b>Powell* (Fed Chair)</b> Semi-Annual Policy Report to Senate Panel	<b>Housing Starts (SAAR)</b> Apr 891K <b>U.K. Consumer Price Index (YoY)</b> Apr 0.8% <b>Canada Consumer Price Index (YoY)</b> Apr -0.2%	<b>Japan Consumer Price Index (YoY)</b> Apr 0.1% <b>Bank of England Rate Decision</b> Previous 0.10%; Jun 0.10% (W)	<b>Powell* (Fed Chair) &amp; Mester (Cleveland)</b> Youngstown Community Event
<b>22</b>	<b>23</b>	<b>24</b>	<b>25</b>	<b>26</b>
<b>Existing Home Sales (SAAR)</b> Apr 4.33M	<b>New Home Sales (SAAR)</b> Apr 623K	<b>Evans (Chicago Fed)</b> Virtual Discussion on Economy	<b>Durable Goods Orders (MoM)</b> Apr -17.7% <b>Bank of Mexico Policy Decision</b> Previous 5.50%	<b>Personal Income &amp; Spending (MoM)</b> Apr 10.5%; -13.6%
<b>29</b>	<b>30</b>	<b>1</b>	<b>2</b>	<b>3</b>
	<b>Consumer Confidence Index</b> May 86.6 <b>Eurozone Consumer Price Index (YoY)</b> May 0.1%	<b>ISM Manufacturing Index</b> May 43.1 <b>FOMC Meeting Minutes</b>	<b>Nonfarm Payrolls</b> May 2,509K <b>Trade Balance</b> Apr -\$49.4B	<b>U.S. Independence Day Observed</b> [U.S. Bond & Equity Markets Closed]
			[Early U.S. Bond Market Close]	

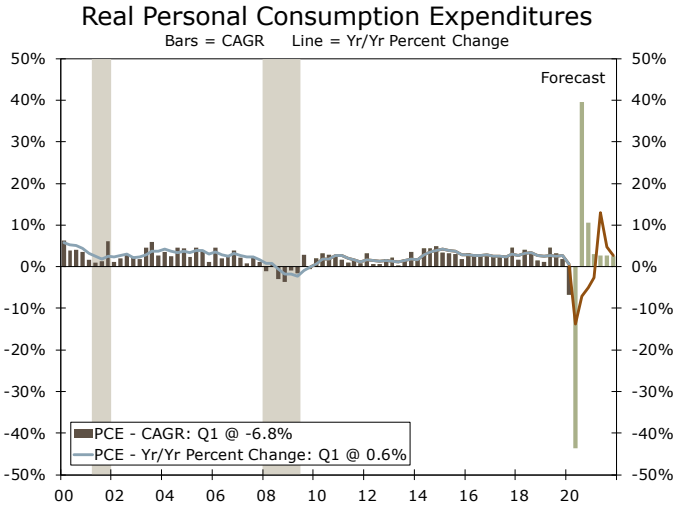
Note: (W) = Wells Fargo Estimate, (C) = Consensus Estimate, \* = voting FOMC member in 2020, Red = Market Moving Releases

Source: Bloomberg LP and Wells Fargo Securities

# U.S. Growth Outlook

Real GDP growth forecast for Q2-2020: -37.6% (seasonally adjusted annualized rate)

- **Change since last forecast: -12.9 percentage points**
- **We have downwardly revised our Q2 GDP growth forecast** on the basis of our expectation for weaker PCE growth. Since our last update, April personal spending was reported to have declined a record 13.6%, and **we now forecast PCE to contract in excess of a 40% annualized rate this quarter**. The significant share of GDP that PCE commands caused our **overall GDP growth projection to fall to a -37.6% annualized pace in Q2**. Other revisions to our U.S. forecast included a more-negative reading for government spending, due in large part to an ongoing reduction in education output.
- Real GDP growth forecast for full-year 2020: -5.8% (year-over-year percent change)
  - **Change since last forecast: -1.2 percentage points**
  - **The U.S. economy is bottoming**, and activity is starting to pick up off a very low base. As a result, **we have upwardly revised our growth forecast for H2-2020 and beyond**. On net, **our June revisions leave the level of GDP at the end of 2020 higher than it was in our May forecast**, even though we now expect an even more negative GDP reading in the second quarter. **That said, we still believe the economy is unlikely to recoup all of the lost output by year-end 2021.**



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

## Key Themes and Upside/Downside Scenarios

- **Upside scenario:** The COVID-19 outbreak subsides and economic activity begins to rapidly ramp up. Hiring comes back amid the pick up in activity, monetary and fiscal policy responses create the backdrop for a robust second half of the year and the global economy experiences a sharp but brief recession.
- **Downside scenario:** As countries begin to re-open, COVID-19 case growth jumps, leading to more shutdowns and crimping economic growth domestically and abroad. Monetary and fiscal policy responses are not as effective/forthcoming the second time around, and the sharp recession we currently project drags on over several quarters, leading to more structural damage and a much less robust recovery.

## Inflation Forecast

- **We have not made any material changes to our inflation forecast.** We look for YoY CPI inflation to dip to 0.3% by year-end, and for core CPI inflation to recede to 0.8% due to generalized weakness in pricing power.

## Labor Market Forecast

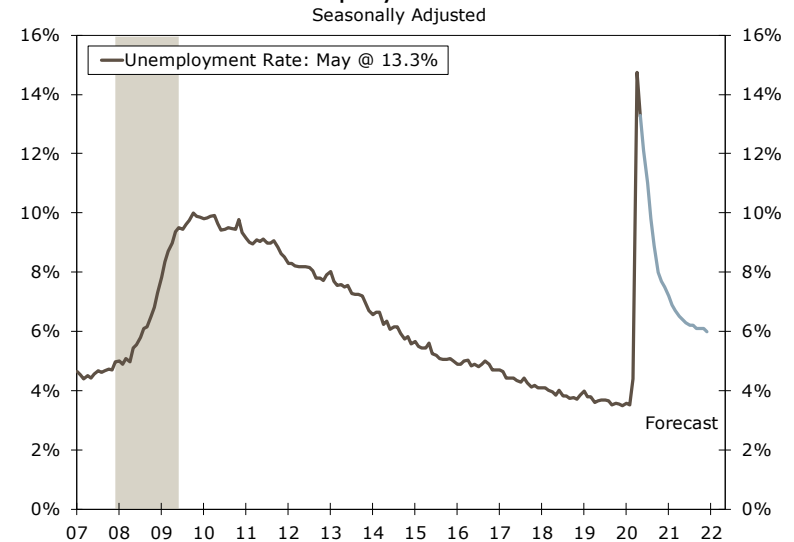
- **The U.S. labor market added 2.5 million jobs in May** as the re-opening of many parts of the economy led to an immediate pick-up in hiring. The better-than-expected May employment outcome led us to be moderately more optimistic regarding the near-term outlook for job growth. Still, **we do not expect the labor market to return to its pre-virus position for quite some time: our forecast has the unemployment rate still around 6% at the end of 2021.**

## Fed Funds Outlook

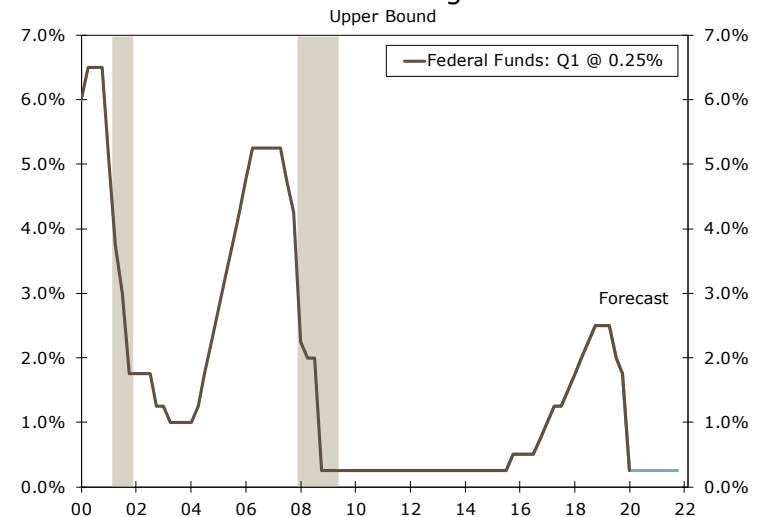
### Fed Funds Forecast for 2020 & 2021

- **We still expect the FOMC to keep the fed funds target range unchanged at 0%-0.25% for the foreseeable future.**
- The Fed has restarted quantitative easing and dusted off some of its crisis-era playbook—increasing swap lines with other central banks, reopening facilities for buying commercial paper, lending to primary dealers, etc. In addition, some of the Fed’s newest programs are just getting up and running, so the full effect of Fed policy action to date is yet to be felt. **These programs will likely be in effect until at least the end of 2020, in our view.**

## Unemployment Rate



## Federal Funds Target Rate



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

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

	Forecast															
	Actual								Forecast							
	2018				2019				2020				2021			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Quarter End Interest Rates																
Federal Funds Target Rate	1.75	2.00	2.25	2.50	2.50	2.50	2.00	1.75	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
3 Month LIBOR	2.31	2.34	2.40	2.81	2.60	2.32	2.09	1.91	1.45	0.30	0.30	0.30	0.35	0.30	0.30	0.30
Prime Rate	4.75	5.00	5.25	5.50	5.50	5.50	5.00	4.75	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25
Conventional Mortgage Rate	4.44	4.57	4.63	4.64	4.28	3.80	3.61	3.72	3.45	3.00	2.95	2.95	3.00	3.00	3.10	3.20
3 Month Bill	1.73	1.93	2.19	2.45	2.40	2.12	1.88	1.55	0.11	0.15	0.15	0.15	0.20	0.15	0.15	0.15
6 Month Bill	1.93	2.11	2.36	2.56	2.44	2.09	1.83	1.60	0.15	0.15	0.15	0.15	0.20	0.15	0.20	0.20
1 Year Bill	2.09	2.33	2.59	2.63	2.40	1.92	1.75	1.59	0.17	0.20	0.20	0.20	0.20	0.25	0.25	0.30
2 Year Note	2.27	2.52	2.81	2.48	2.27	1.75	1.63	1.58	0.23	0.20	0.20	0.25	0.30	0.40	0.50	0.65
5 Year Note	2.56	2.73	2.94	2.51	2.23	1.76	1.55	1.69	0.37	0.50	0.60	0.65	0.75	0.85	0.95	1.00
10 Year Note	2.74	2.85	3.05	2.69	2.41	2.00	1.68	1.92	0.70	0.90	1.05	1.15	1.25	1.30	1.40	1.50
30 Year Bond	2.97	2.98	3.19	3.02	2.81	2.52	2.12	2.39	1.35	1.65	1.80	1.85	1.90	1.95	2.05	2.10

Forecast as of: June 09, 2020

Source: Federal Reserve Board and Wells Fargo Securities

## What Are We Watching in the Month Ahead?

- Ongoing economic recovery leading to moderately higher yields
  - The 10-year Treasury yield has risen more than 20 bps since our last published forecast on May 13. This is in line with our projection that economic activity is bottoming, and that an economic rebound would be accompanied by higher yields and a steeper curve.
- What is the medium term outlook for the fed funds rate?
  - The steeper curve aligns with our belief that the fed funds rate will remain at zero for the next couple years, but that rates will not be at zero indefinitely. Overnight index swap rates suggest that the move higher in Treasury yields has been broadly driven by expectations of a higher fed funds rate by the middle of the decade.
- Negative rates unlikely, but the first dot plot since December could be important
  - We remain of the view that a negative fed funds rate is highly unlikely anytime soon. We believe it is more likely the Fed will use the dot plot at its June meeting to signal that rate hikes will not occur through at least 2022.
  - Perhaps most important will be any changes to the longer-run dot. If the median projection for the longer-run fed funds rate falls precipitously (>50 bps in our view), this could be a more material form of forward guidance.

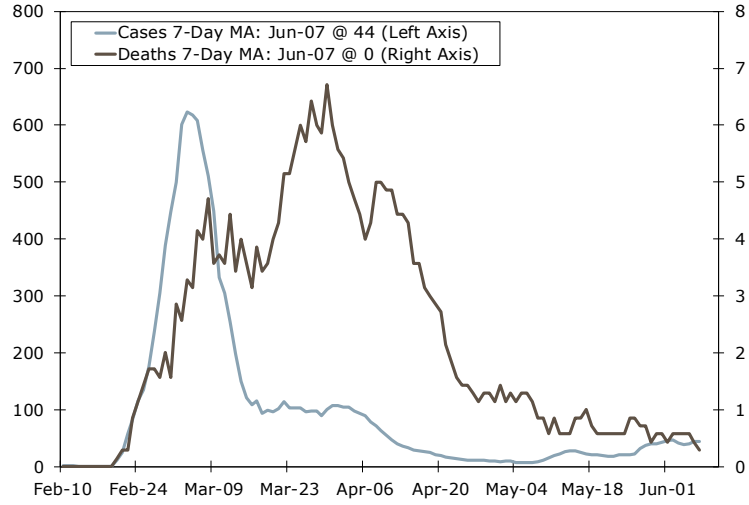
## South Korea Has COVID-19 Under Control

- **South Korea was one of the first countries to experience a COVID-19 outbreak outside of China, but it quickly managed to get the spread of the virus in check.** The less severe outbreak largely allowed the country to avoid the most severe lockdowns put in place in other parts of the world.
- **Against that backdrop, the South Korean economy has held up reasonably well, at least on a relative basis.** Real retail sales were down just 2.2% year-over-year in April. Similarly, industrial production in South Korea was down 1.7% year-over-over in April, compared to 15.0% in the United States.

## But Some Sectors Are Still Struggling

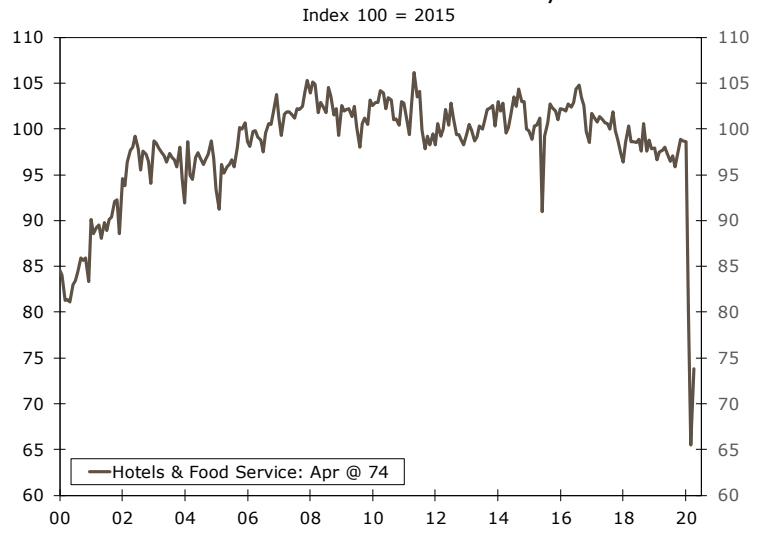
- That said, the budding recovery has been uneven across different parts of the economy. **Tourism from international arrivals was still essentially nonexistent in April, and an index of air travel activity was at its lowest point on record in April.** At 14.5, the index was still down nearly 90% from its January level. And although the hotel and food industry has begun to rebound, activity remains significantly depressed. This suggests that solving these industries' woes in other economies will not be as simple as just allowing businesses to re-open, even if this is an important first step.

South Korea Covid-19 New Cases & Deaths



Source: Bloomberg LP and Wells Fargo Securities

South Korea Hotel & Food Industry Index



## 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%	April 2020 <i>Announced \$2.3T in loans to support the economy via the Main Street Lending Program, the Municipal Liquidity Facility, and the expansion of the Primary and Secondary Market Corporate Credit Facilities</i>	No change through Q4-2021
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>	No change through Q4-2021
United Kingdom (BoE)	0.10%	March 2020 <i>Cumulative 65 bps of rate cuts during March, plan to increase its holdings of U.K. government and corporate bonds by 200 billion pounds</i>	Raise its asset purchase target by a further £200B in June
Japan (BoJ)	-0.10%	April 2020 <i>Raised its purchase target for corporate bonds and commercial paper to ¥20T</i>	No change through Q4-2021
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 Q4-2021

Forecast as of: June 09, 2020

Source: Bloomberg LP and Wells Fargo Securities

## What Are We Watching in the Month Ahead?

### European Central Bank

- At this point in time, we do not anticipate any further easing from the ECB. Policymakers have thus far eschewed a deeper foray into negative rates, and we believe the magnitude and pace of asset purchases is sufficient at this time.

### Bank of Japan

- At this point in time, we do not anticipate any further easing from the BoJ, though we see the risks as clearly skewed towards some type of more accommodative policy.

### Bank of England

- We think the BoE is done cutting its policy rate, but we look for a £200 billion increase in asset purchases at the June 18 meeting.

### Bank of Canada

- At this point in time, we do not anticipate any further easing from the BoC.



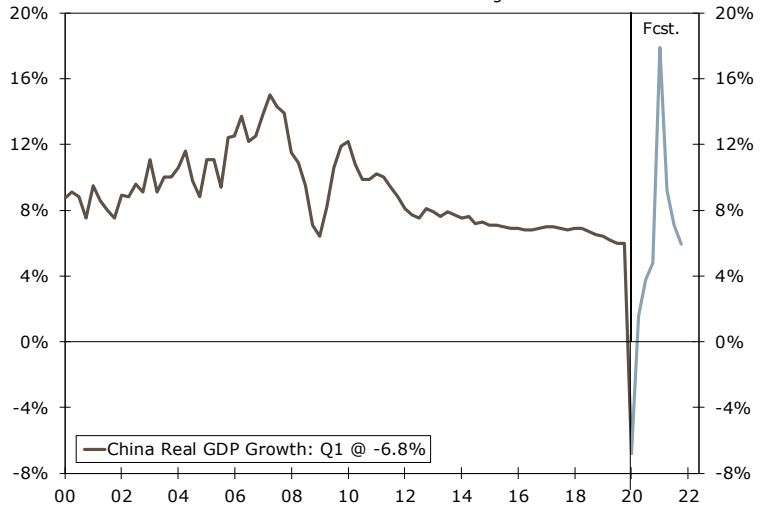
## Global Growth Forecast Stabilizing

- We expect the global economy to contract 3.7% in 2020, the first time since February we have not revised our 2020 outlook lower. Much of our stabilizing 2020 global growth outlook, stems from what appears to be a robust rebound in China. Manufacturing and services PMIs have recovered above the breakeven 50 level and activity data have also improved.
- We now expect Chinese Q2 GDP to recoup most of its Q1 decline, and for full-year 2020 we expect positive growth of 1.2%

## Latin American Recovery Likely to Lag

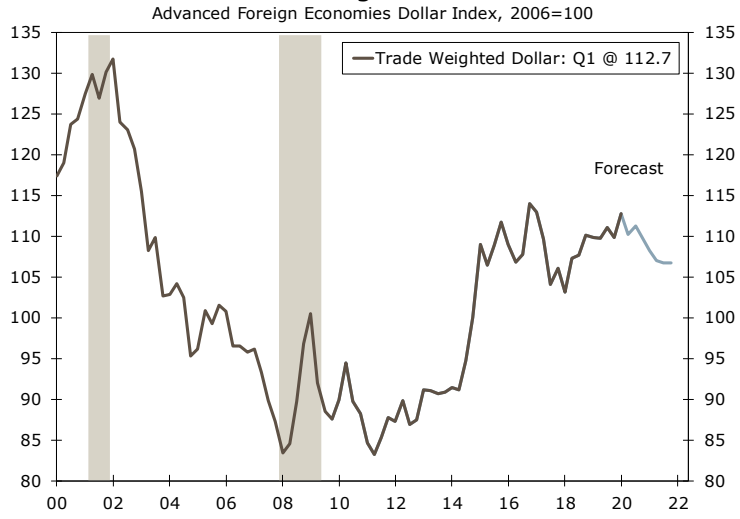
- Whereas COVID-19 hit China's economy hard and early, in recent weeks COVID-19 case numbers have picked up markedly in several other emerging economies, especially Brazil and Russia. As a region, we anticipate any economic recovery in Latin America to lag other parts of the world.
- Finally, the signs of economic hope appear to be reducing support for safe haven currencies, and we now expect commodity-sensitive and emerging currencies to strengthen earlier and by more than we previously anticipated.

China Real GDP Growth  
Year-over-Year Percent Change



Source: International Monetary Fund, Federal Reserve Board and Wells Fargo Securities

Trade Weighted Dollar

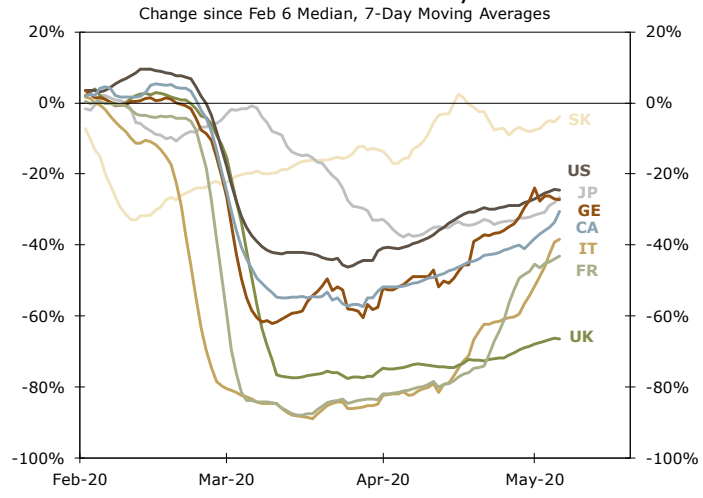


## Global Mobility Report: Key takeaways from this week

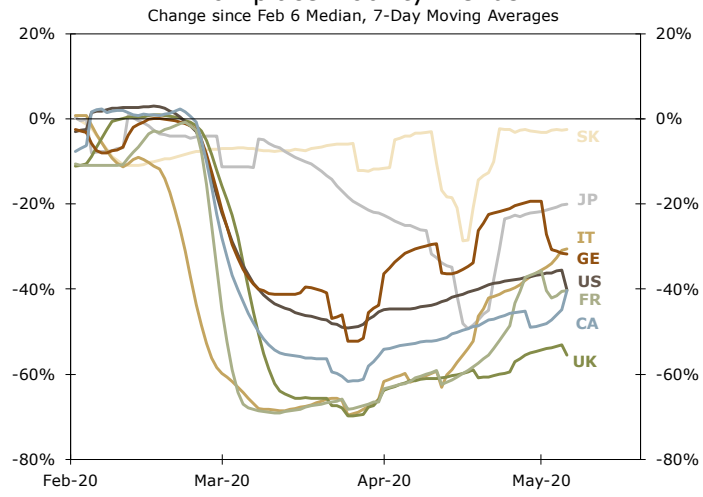
- **Most of the official economic data reflect the period from at least a month ago**, which makes assessing the rebound in activity in real time particularly challenging.
- **Some analysts, including us, have turned to high-frequency data from Apple and Google to assess the rebound.** These data track mobility to various types of destinations by different modes of transportation.
- Through May 25 (Google) and June 2 (Apple)\*, **mobility remains well-below pre-virus levels in most countries, but has started to rebound.**
- **The recovery in U.S. retail/recreation and workplace visits remains sluggish.** There is some bifurcation between Southern states that have re-opened and Northern states that remain closed or have opened less. Even in states where re-opening is advanced, visits remain 10-20% below the baseline. **Canada is in largely the same position as the U.S.**
- **The pick-up in German retail/recreation and workplace visits has slowed or stalled. France and Italy have closed the gap considerably in recent weeks,** but in most cases, activity is ~40% below the baseline.
- **In Japan, the recovery in activity has been very slow.** However, the declines in activity were also less severe due to a lack of strict lockdowns. **South Korea remains the furthest along in its recovery** in activity, close-to-or-at the baseline for most categories of visits.
- **U.K. activity has hardly recovered at all,** given the country has barely lifted any restrictions on activity. Most non-essential U.K. shops are likely to remain closed through at least June 15.
- For more detail or to see graphical representations of these data, please see [Global Mobility Report](#).

\*Data are benchmarked to January (Apple) and February (Google) and are not seasonally adjusted.

### Retail & Recreation Mobility Trends



### Workplace Mobility Trends



Source: Google LLC "Google COVID-19 Mobility Reports" and Wells Fargo Securities

## Wells Fargo Securities U.S. Economic Forecast

	Actual																Forecast							
	2018				2019				2020				2021				Actual		Forecast					
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	2018	2019	2020	2021				
Real Gross Domestic Product (a)	2.6	3.5	2.9	1.1	3.1	2.0	2.1	2.1	-5.0	-37.6	23.9	10.6	3.1	2.7	2.7	2.4	2.9	2.3	-5.8	3.3				
Personal Consumption	1.7	4.0	3.5	1.4	1.1	4.6	3.1	1.8	-6.8	-43.7	39.6	10.6	3.0	2.7	2.7	2.5	3.0	2.6	-6.4	4.1				
Business Fixed Investment	8.8	7.9	2.1	4.8	4.4	-1.0	-2.3	-2.4	-7.9	-28.1	-9.3	3.2	3.0	5.2	4.9	4.9	6.4	2.1	-9.5	-0.2				
Equipment	6.6	3.4	2.9	7.4	-0.1	0.8	-3.8	-4.3	-16.6	-33.4	-10.8	15.1	4.6	4.6	4.0	4.0	6.8	1.3	-12.9	1.3				
Intellectual Property Products	9.7	11.9	4.1	11.7	10.8	3.6	4.7	2.8	1.0	-12.2	-2.8	-4.4	3.7	7.4	6.9	6.7	7.4	7.5	-1.5	1.5				
Structures	12.1	11.0	-2.1	-9.0	4.0	-11.1	-9.9	-7.2	-3.9	-45.0	-19.0	-7.5	-3.0	1.5	2.5	3.0	4.1	-4.3	-16.8	-7.9				
Residential Investment	-5.3	-3.7	-4.0	-4.7	-1.0	-3.0	4.6	6.5	18.5	-35.0	6.0	2.0	3.0	5.0	6.0	6.5	-1.5	-1.5	-1.3	1.1				
Government Purchases	1.9	2.6	2.1	-0.4	2.9	4.8	1.7	2.5	0.8	-7.3	-1.6	2.6	1.5	0.7	0.2	0.0	1.7	2.3	-0.3	0.3				
Net Exports	-884.2	-850.5	-962.4	-983.0	-944.0	-980.7	-990.1	-900.7	-816.0	-805.2	-848.7	-857.0	-861.3	-865.6	-862.3	-860.9	-920.0	-953.9	-831.7	-862.5				
Pct. Point Contribution to GDP	0.0	0.7	-2.1	-0.4	0.7	-0.7	-0.1	1.5	1.3	0.2	-1.0	-0.2	-0.1	-0.1	0.1	0.0	-0.4	-0.2	0.6	-0.2				
Inventory Change	40.5	-28.0	87.2	93.0	116.0	69.4	69.4	13.1	-67.2	-80.0	-40.0	60.0	75.0	75.0	70.0	60.0	48.1	67.0	-31.8	70.0				
Pct. Point Contribution to GDP	0.1	-1.2	2.1	0.1	0.5	-0.9	0.0	-1.0	-1.4	-0.3	1.0	2.3	0.3	0.0	-0.1	-0.2	0.1	0.1	-0.5	0.6				
Nominal GDP (a)	5.0	7.1	4.8	2.9	3.9	4.7	3.8	3.5	-3.5	-39.2	25.7	11.8	4.9	4.6	4.3	3.9	5.4	4.1	-5.0	4.7				
Real Final Sales	2.4	4.8	0.8	1.0	2.6	3.0	2.1	3.1	-3.6	-36.8	22.7	8.2	2.8	2.7	2.8	2.6	2.8	2.2	-5.2	2.8				
Retail Sales (b)	4.4	5.3	5.0	3.0	2.7	3.5	4.0	4.0	1.2	-17.7	-10.5	-6.4	-1.5	20.7	10.9	6.5	4.4	3.6	-8.4	8.6				
Inflation Indicators (b)																								
PCE Deflator	1.9	2.3	2.2	1.9	1.4	1.4	1.4	1.4	1.6	0.5	0.5	0.4	0.5	1.5	1.6	1.6	2.1	1.4	0.7	1.3				
"Core" PCE Deflator	1.8	2.0	2.0	1.9	1.6	1.6	1.7	1.6	1.7	0.8	0.6	0.5	0.6	1.4	1.6	1.7	2.0	1.6	0.9	1.3				
Consumer Price Index	2.2	2.7	2.7	2.2	1.6	1.8	1.8	2.0	2.1	0.4	0.3	0.3	0.5	1.8	1.8	1.6	2.4	1.8	0.8	1.4				
"Core" Consumer Price Index	1.9	2.2	2.3	2.2	2.1	2.1	2.3	2.3	2.2	1.3	0.9	0.8	0.8	1.7	1.8	1.9	2.1	2.2	1.3	1.6				
Producer Price Index (Final Demand)	2.8	3.0	3.1	2.8	1.9	2.0	1.6	1.1	1.3	-0.9	-0.5	-0.1	0.5	2.6	2.6	2.5	2.9	1.7	0.0	2.0				
Employment Cost Index	2.7	2.8	2.8	2.9	2.8	2.7	2.8	2.7	2.8	2.4	2.0	1.8	1.5	1.8	2.0	2.1	2.8	2.7	2.2	1.8				
Real Disposable Income (b)	3.9	3.9	4.1	3.9	3.3	3.0	2.7	2.6	1.7	5.3	-2.1	-1.7	-1.2	-4.3	3.1	3.0	4.0	2.9	0.8	0.1				
Nominal Personal Income (b)	5.6	5.8	5.9	4.9	4.6	4.7	4.2	4.2	3.2	4.2	-2.4	-2.1	-1.4	-2.4	4.7	4.7	5.6	4.4	0.7	1.3				
Industrial Production (a)	2.3	4.6	5.2	3.9	-1.9	-2.3	1.1	0.4	-7.1	-46.8	-12.2	-5.1	3.0	6.3	5.7	3.6	3.9	0.9	-14.1	-4.0				
Capacity Utilization	77.9	78.5	79.1	79.4	78.6	77.8	77.6	77.2	75.6	63.3	70.4	71.1	71.4	72.5	73.5	74.2	78.7	77.8	70.1	72.9				
Corporate Profits Before Taxes (b)	2.9	2.4	4.2	4.2	-2.2	1.3	-1.2	2.2	-8.5	-15.0	-12.0	-2.0	6.0	15.0	14.0	5.0	3.4	0.0	-9.3	9.8				
Corporate Profits After Taxes	10.3	8.3	11.3	10.1	-2.9	1.3	-0.3	2.2	-8.6	-14.3	-11.9	-1.5	7.3	16.3	15.3	6.2	10.0	0.1	-9.0	11.1				
Federal Budget Balance (c)	-375	-7	-172	-319	-372	-56	-237	-357	-387	-1777	-879	-541	-658	-328	-472	-383	-779	-984	-3400	-2000				
Trade Weighted Dollar Index (d)	103.1	107.3	107.6	110.1	109.8	109.7	111.0	109.9	112.7	110.3	111.3	109.8	108.3	107.0	106.8	106.8	106.4	110.1	111.0	107.2				
Nonfarm Payroll Change (e)	234	211	153	172	139	159	203	210	-303	-5059	2000	550	280	240	225	215	193	178	-703	240				
Unemployment Rate	4.1	3.9	3.8	3.8	3.9	3.6	3.6	3.5	3.8	13.4	9.9	7.7	6.9	6.4	6.2	6.1	3.9	3.7	8.7	6.4				
Housing Starts (f)	1.31	1.26	1.24	1.18	1.20	1.26	1.29	1.43	1.49	0.96	1.18	1.22	1.22	1.23	1.24	1.24	1.25	1.29	1.21	1.23				
Light Vehicle Sales (g)	17.1	17.3	17.0	17.4	16.8	17.0	17.0	16.7	15.0	11.0	12.0	12.8	14.2	15.9	16.3	16.5	17.2	16.9	12.7	15.7				
Crude Oil - Brent - Front Contract (h)	66.9	74.6	75.8	68.6	63.8	67.6	61.5	61.7	51.0	32.0	33.0	37.0	42.0	48.0	46.0	50.0	71.5	63.6	38.3	46.5				
Quarter-End Interest Rates (i)																								
Federal Funds Target Rate	1.75	2.00	2.25	2.50	2.50	2.50	2.00	1.75	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	1.96	2.25	0.25	0.25				
3 Month LIBOR	2.31	2.34	2.40	2.81	2.60	2.32	2.09	1.91	1.45	0.30	0.30	0.30	0.35	0.30	0.30	0.30	2.31	2.33	0.59	0.31				
Prime Rate	4.75	5.00	5.25	5.50	5.50	5.50	5.00	4.75	3.25	3.25	3.25	3.25	3.25	3.25	3.25	3.25	4.96	5.25	3.25	3.25				
Conventional Mortgage Rate	4.44	4.57	4.63	4.64	4.28	3.80	3.61	3.72	3.45	3.00	2.95	2.95	3.00	3.00	3.10	3.20	4.54	3.94	3.09	3.08				
3 Month Bill	1.73	1.93	2.19	2.45	2.40	2.12	1.88	1.55	0.11	0.15	0.15	0.15	0.20	0.15	0.15	0.15	1.97	2.11	0.14	0.16				
6 Month Bill	1.93	2.11	2.36	2.56	2.44	2.09	1.83	1.60	0.15	0.15	0.15	0.15	0.20	0.15	0.20	0.20	2.14	2.11	0.15	0.19				
1 Year Bill	2.09	2.33	2.59	2.63	2.40	1.92	1.75	1.59	0.17	0.20	0.20	0.20	0.20	0.25	0.25	0.30	2.33	2.05	0.19	0.25				
2 Year Note	2.27	2.52	2.81	2.48	2.27	1.75	1.63	1.58	0.23	0.20	0.20	0.25	0.30	0.40	0.50	0.65	2.53	1.97	0.22	0.46				
5 Year Note	2.56	2.73	2.94	2.51	2.23	1.76	1.55	1.69	0.37	0.50	0.60	0.65	0.75	0.85	0.95	1.00	2.75	1.95	0.53	0.89				
10 Year Note	2.74	2.85	3.05	2.69	2.41	2.00	1.68	1.92	0.70	0.90	1.05	1.15	1.25	1.30	1.40	1.50	2.91	2.14	0.95	1.36				
30 Year Bond	2.97	2.98	3.19	3.02	2.81	2.52	2.12	2.39	1.35	1.65	1.80	1.85	1.90	1.95	2.05	2.10	3.11	2.58	1.66	2.00				

Forecast as of: June 09, 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 May 13, 2020

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

	Actual								Forecast								Actual		Forecast	
	2018				2019				2020				2021				2018	2019	2020	2021
	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	0.00	0.00	-0.26	-12.88	17.21	6.22	1.07	0.42	0.39	-0.12	0.00	0.00	-1.23	2.15
Personal Consumption	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.79	-13.60	20.25	4.67	0.32	0.20	0.04	-0.34	0.00	0.00	-1.44	1.48
Business Fixed Investment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.76	-7.09	0.02	0.11	0.02	0.00	0.00	0.00	0.00	0.00	-1.38	-0.60
Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-1.41	-2.11	0.01	0.05	0.00	0.00	0.00	0.00	0.00	0.00	-0.86	-0.20
Intellectual Property Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.53	-9.73	0.00	0.01	0.00	-0.01	0.00	0.00	0.00	0.00	-1.81	-0.68
Structures	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.81	-13.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-1.89	-1.39
Residential Investment	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-2.54	1.00	18.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.96	2.50
Government Purchases	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	-8.76	-1.55	4.68	4.79	1.70	0.39	0.00	0.00	0.00	-1.57	1.68
Net Exports	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	-103.9	90.6	177.3	175.9	175.3	189.7	196.2	0.0	0.0	41.3	184.3
Pct. Point Contribution to GDP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	-2.24	4.25	1.91	-0.03	-0.01	0.31	0.14	0.00	0.00	0.22	0.78
Inventory Change	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-50.83	20.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-7.71	0.00
Pct. Point Contribution to GDP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.90	1.48	-0.41	0.02	0.00	0.00	0.00	0.00	0.00	0.00	-0.04	0.05
Nominal GDP	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.05	-12.52	18.03	5.70	0.88	0.42	0.40	-0.21	0.00	0.00	-1.15	2.08
Real Final Sales	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.61	-14.02	17.43	6.08	1.07	0.42	0.39	-0.13	0.00	0.00	-1.21	2.11
Retail Sales (b)	0.00	0.00	0.00	0.00	-0.01	0.01	0.00	0.00	0.03	1.90	11.01	11.78	12.58	13.03	-0.04	-0.83	0.00	0.00	6.24	6.57
Inflation Indicators (b)																				
PCE Deflator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.02	0.04	0.17	0.03	-0.01	-0.06	-0.19	-0.07	0.00	0.00	0.05	-0.08
"Core" PCE Deflator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.03	-0.42	-0.45	-0.59	-0.46	-0.02	0.03	0.17	0.00	0.00	-0.38	-0.07
Consumer Price Index	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.10	0.10	0.03	-0.01	-0.08	-0.08	0.00	0.00	0.06	-0.04
"Core" Consumer Price Index	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.07	-0.11	-0.11	0.01	0.16	0.19	0.19	0.00	0.00	-0.07	0.14
Producer Price Index (Final Demand)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.00	-1.30	-1.28	-1.31	-1.29	-0.02	-0.11	-0.11	0.00	0.01	-0.97	-0.39
Employment Cost Index	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.03	-0.03	-0.03	-0.03	0.00	0.00	0.00	-0.01	-0.02
Real Disposable Income (b)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.22	15.04	5.50	0.82	0.57	-15.17	-4.82	1.92	0.00	0.03	5.39	-4.23
Nominal Personal Income (b)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.18	14.44	6.77	2.98	3.11	-12.46	-4.22	1.10	0.00	0.03	6.10	-2.90
Industrial Production (a)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.44	-0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	-0.03
Capacity Utilization	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	1.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.43	0.00
Corporate Profits Before Taxes (b)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-6.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-1.58	0.06
Corporate Profits After Taxes	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-7.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-1.77	0.07
Federal Budget Balance (c)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	159.74	-159.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trade Weighted Dollar Index (d)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-5.25	-4.00	-3.50	-3.45	-3.25	-3.00	-3.00	0.00	0.00	-3.19	-3.18
Nonfarm Payroll Change (e)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-160.67	4440.67	-2250.00	-250.00	-220.00	-60.00	-5.00	85.00	0.00	0.00	445.00	-50.00
Unemployment Rate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-4.23	-2.20	-0.40	-0.20	-0.20	-0.20	-0.20	0.00	0.00	-1.71	-0.20
Housing Starts (f)	-0.01	0.00	0.01	-0.01	-0.01	0.00	0.01	-0.01	0.02	-0.26	0.28	0.12	0.01	0.01	0.02	0.01	0.00	0.00	0.04	0.01
Light Vehicle Sales (g)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	1.99	1.04	-0.54	-1.54	-0.29	-0.09	-0.13	0.00	0.00	0.63	-0.51
Crude Oil - Brent - Front Contract (h)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.00	3.00	0.00	5.00	11.00	9.00	13.00	0.00	0.00	4.25	9.50
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
3 Month LIBOR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.20	-0.05	-0.05	-0.10	-0.05	-0.05	-0.10	0.00	0.00	-0.08	-0.08
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
Conventional Mortgage Rate	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.05	0.00	0.00	-0.05	-0.05	0.00	0.00	0.00	0.04	-0.02
3 Month Bill	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	-0.05	0.00	0.00	0.00	-0.01
2 Year Note	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.15	-0.20	-0.25	-0.35	-0.35	-0.35	-0.30	0.00	0.00	-0.15	-0.06
5 Year Note	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.15	-0.15	-0.15	-0.15	-0.10	-0.10	-0.10	0.00	0.00	-0.11	-0.16
10 Year Note	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.10	-0.10	-0.10	-0.05	-0.05	-0.05	0.00	0.00	0.00	-0.07	-0.34
30 Year Bond	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.05	-0.10	-0.05	-0.05	0.00	0.00	0.00	0.00	-0.02	-0.11

Forecast as of: June 09, 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

## Wells Fargo Securities International Economic Forecast

(Year-over-Year Percent Change)

	GDP				CPI			
	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
Global (PPP Weights)	3.6%	2.9%	-3.7%	4.4%	3.6%	3.4%	3.0%	3.0%
Advanced Economies <sup>1</sup>	2.2%	1.9%	-6.6%	3.0%	2.0%	1.6%	0.5%	1.3%
United States	2.9%	2.3%	-5.8%	3.3%	2.4%	1.8%	0.8%	1.4%
Eurozone	1.9%	1.2%	-8.9%	2.7%	1.8%	1.2%	0.3%	1.2%
United Kingdom	1.3%	1.4%	-7.6%	4.3%	2.5%	1.8%	0.8%	1.4%
Japan	0.3%	0.7%	-5.8%	-0.2%	1.0%	0.5%	0.0%	0.2%
Canada	2.0%	1.7%	-7.4%	3.5%	2.3%	1.9%	0.4%	1.5%
Developing Economies <sup>1</sup>	4.5%	3.7%	-1.8%	5.4%	4.8%	4.8%	4.7%	4.1%
China	6.7%	6.1%	1.2%	9.5%	2.1%	2.9%	2.7%	1.8%
India	6.8%	4.9%	-1.6%	3.6%	3.9%	3.7%	4.7%	3.6%
Mexico	2.2%	-0.3%	-8.3%	-1.3%	4.9%	3.6%	2.8%	3.2%

Forecast as of: June 09, 2020

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

Source: International Monetary Fund and Wells Fargo Securities

## Changes to the Wells Fargo International Economic Forecast

(Year-over-Year Percent Change)

	GDP				CPI			
	2018	2019	2020	2021	2018	2019	2020	2021
Global (PPP Weights)	0.00%	-0.06%	0.03%	1.10%	0.00%	0.00%	0.19%	-0.03%
Advanced Economies <sup>1</sup>	0.00%	0.00%	-0.85%	1.07%	0.00%	0.00%	0.05%	-0.18%
United States	0.00%	0.00%	-1.23%	2.15%	0.00%	0.00%	0.10%	-0.13%
Eurozone	0.00%	0.00%	-0.88%	0.55%	0.00%	0.00%	0.01%	-0.15%
United Kingdom	0.00%	0.00%	0.49%	0.00%	0.00%	0.00%	0.05%	0.16%
Japan	-0.05%	0.01%	-0.17%	-0.27%	0.00%	0.00%	0.11%	-0.54%
Canada	0.00%	0.02%	-1.05%	0.04%	0.00%	0.00%	-0.36%	-0.27%
Developing Economies <sup>1</sup>	0.00%	-0.11%	0.66%	1.13%	0.00%	0.00%	0.28%	0.08%
China	0.00%	0.00%	2.38%	1.98%	0.00%	0.00%	0.47%	0.35%
India	-0.18%	-0.46%	0.04%	-0.02%	0.00%	0.00%	0.52%	-0.27%
Mexico	0.07%	-0.16%	-0.04%	0.00%	0.00%	0.00%	0.09%	-0.07%

Forecast as of: June 09, 2020

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

## Wells Fargo Securities International Interest Rate Forecast

(End of Quarter Rates)

	Central Bank Key Policy Rate					
	2020			2021		
	Q2	Q3	Q4	Q1	Q2	Q3
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		
	Q2	Q3	Q4	Q1	Q2	Q3
United States	0.20%	0.20%	0.25%	0.30%	0.40%	0.50%
Eurozone <sup>2</sup>	-0.60%	-0.55%	-0.50%	-0.40%	-0.30%	-0.15%
United Kingdom	0.05%	0.15%	0.25%	0.35%	0.45%	0.55%
Japan	-0.15%	-0.15%	-0.10%	0.00%	0.05%	0.05%
Canada	0.40%	0.40%	0.45%	0.45%	0.50%	0.60%
	10-Year Note					
	2020			2021		
	Q2	Q3	Q4	Q1	Q2	Q3
United States	0.90%	1.05%	1.15%	1.25%	1.30%	1.40%
Eurozone <sup>2</sup>	-0.30%	-0.20%	-0.10%	0.00%	0.10%	0.20%
United Kingdom	0.35%	0.50%	0.65%	0.70%	0.75%	0.80%
Japan	0.00%	0.05%	0.10%	0.10%	0.15%	0.15%
Canada	0.75%	0.85%	0.95%	1.00%	1.05%	1.10%

Forecast as of: June 09, 2020

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

Source: International Monetary Fund and Wells Fargo Securities

## Change in Wells Fargo International Interest Rate Forecast

(End of Quarter Rates)

	Central Bank Key Policy Rate					
	2020			2021		
	Q2	Q3	Q4	Q1	Q2	Q3
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		
	Q2	Q3	Q4	Q1	Q2	Q3
United States	-0.15%	-0.20%	-0.25%	-0.35%	-0.35%	-0.35%
Eurozone <sup>2</sup>	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%
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	-0.10%	-0.15%	-0.15%	-0.30%	-0.40%	-0.40%
	10-Year Note					
	2020			2021		
	Q2	Q3	Q4	Q1	Q2	Q3
United States	-0.10%	-0.10%	-0.10%	-0.05%	-0.05%	-0.05%
Eurozone <sup>2</sup>	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%
United Kingdom	-0.05%	-0.05%	-0.05%	-0.05%	-0.05%	-0.05%
Japan	0.00%	0.00%	0.00%	-0.05%	0.00%	-0.05%
Canada	-0.05%	-0.05%	-0.10%	-0.15%	-0.20%	-0.25%

Forecast as of: June 09, 2020

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

Source: International Monetary Fund and Wells Fargo Securities



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