U.S. Economic Comment

• The virus vs. the vaccine: early thoughts on growth and interest rate implications

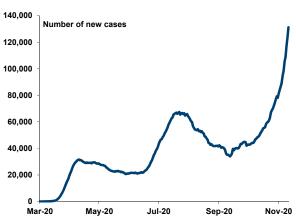
Michael Moran Daiwa Capital Markets America 212-612-6392 michael.moran@us.daiwacm.com

A Surging Virus, but Vaccine Progress

The United States is facing an interesting combination of contrasting pandemic-related developments: the spread of the coronavirus has accelerated dramatically (charts), while at the same time drug companies have noted substantial progress in developing a vaccine. The development that dominates over the next few months will have a profound influence on the performance of global economies and financial markets. At this point, we favor an optimistic view on the likely outcome. Our favorable view largely reflects prospects for a vaccine, but it also has been influenced by the recent performance of the economy, which seems to be holding up reasonably well despite the surge in the number of new Covid cases.

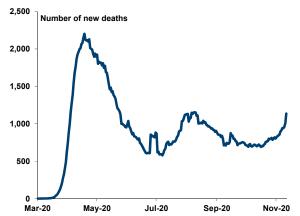
So-called high-frequency economic indicators, those available on a daily or weekly basis, offer real-time insights into the performance of the economy, and these measures have held up well. For example, the number of seatings at restaurants and the number of individuals passing through security checkpoints at airports have stayed on trend in recent weeks. Dining out and traveling by air are risky activities when a virus is spreading rapidly, and the steady performance when new Covid cases have almost more than tripled since mid-October suggests resiliency.

Two other interesting indicators lead to a similar conclusion. The mobility and engagement index constructed by the Federal Reserve Bank of Dallas provides information on the degree to which individuals are out and about. Like the indicators on restaurant dining and air travel, this measure is holding its own (chart, next page, left). The degree of mobility is lower than it was before the onset of the pandemic, but it has not lost ground with the acceleration in the spread of the virus. Similarly, statistics on spending by debit and credit cards has held steady in recent weeks, supporting the view that individuals have not altered their behavior (chart, next page, right).



New Covid-19 Cases in the U.S.*

New Covid-Related Deaths in the U.S.*



^{*} Seven-day moving average. The last observation is for November 11, 2020. Source: Johns Hopkins University and Medicine Coronavirus Resource Center via Bloomberg

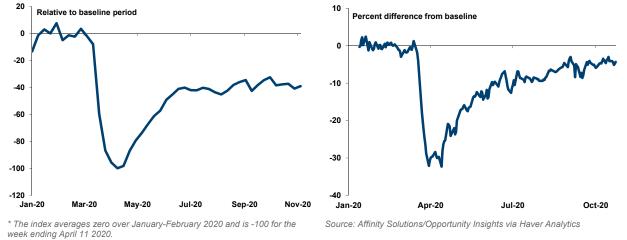
* Seven-day moving average. The last observation is for November 11, 2020. Source: Johns Hopkins University and Medicine Coronavirus Resource Center via Bloomberg

This report is issued by Daiwa Securities Group Inc. through its relevant group companies. Daiwa Securities Group Inc. is the global brand name of Daiwa Securities Co. Ltd., Tokyo ("Daiwa Securities") and its subsidiaries worldwide that are authorized to do business within their respective jurisdictions. These include: Daiwa Capital Markets Hong Kong Ltd. (Hong Kong), regulated by the Hong Kong Securities and Futures Commission, Daiwa Capital Markets Europe Limited (London), regulated by the Financial Conduct Authority and a member of the London Stock Exchange, and Daiwa Capital Markets America Inc. (New York), a U.S. brokerdealer registered with the U.S. Securities and Exchange Commission, a futures commission merchant regulated by the U.S. Commodity Futures Trading Commission, and a primary dealer in U.S. government securities. The data contained in this report were taken from statistical services, reports in our possession, and from other sources believed to be reliable. The opinions and estimates expressed are our own, and we make no representation or guarantee either as to accuracy, completeness or as to the existence of other facts or interpretations that might be significant.



Mobility & Engagement Index*

Credit/Debit Card Spending



Source: Federal Reserve Bank of Dallas and SafeGraph via Haver Analytics

We can offer another indicator to solidify the case for a resilient economy. The Weekly Economic Index published by the Federal Reserve Bank of New York, while still in negative territory, is continuing to trend upward (chart, below). This index draws on 10 high-frequency indicators to gauge the growth of real GDP over the latest four quarters. With the economy falling at an annual rate of 4.6 percent in the first three quarters of the year, the current reading of -2.7 percent in the WEI implies growth of approximately 12 percent in the current quarter. We doubt that the performance in Q4 will be this strong, but the results bolster our confidence in the view that the economy is expanding at a decent pace.

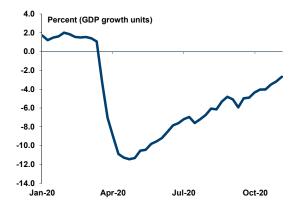
We could also note that initial claims for unemployment insurance are moving lower (although slowly) and that continuing unemployment claims (the number of individuals receiving jobless benefits) are trending sharply downward. The marked improvement in continuing claims is especially notable, as it indicates that individuals are being recalled to their previous jobs or are finding other work.

Growth and Interest Rate Implications

Even in the absence of a vaccine, the economy is performing reasonably well. If recent reports on the vaccines are close to accurate, their availability next year most likely would give the economy a jolt and pave the way for potentially brisk growth. We hesitate to make a precise forecast because the availability and efficacy of potential vaccines are not clear. In addition, history does not provide much guidance on the influence of pandemics and vaccines on the economy.

Nevertheless, our current forecast of 3.2 percent growth over the four quarters of next year, which is built on the assumption of moderate progress in combating the virus, is likely to be too slow in a world with a 90percent-effective vaccine. At the same time, we would not expect a stunning spurt, as production and distribution of the vaccine will face challenges. We are inclined to look for a gradual pickup that adds an additional percentage point to growth, say to four percent over the four quarters of next year. This pace would pull real GDP above its pre-virus level in the third quarter of next year (versus Q4 of next year with a three percent growth rate). Growth of five percent is conceivable if production and distribution proceed quickly and

Weekly Economic Index



Source: Federal Reserve Bank of New York via Haver Analytics

US



smoothly, which would push real GDP above its pre-virus level in the second guarter of next year.

Interest rates moved higher this week in response to the reports of an effective vaccine, especially for intermediate-term and long-term securities. We would expect a continuation of this pattern if an effective vaccine is distributed next year and the economy improves in response.

The increase in the short end of the maturity spectrum is likely to be modest because we do not expect a quick response from the Federal Reserve. Fed officials are likely to err on the side of policy accommodation, and thus the federal funds rate could remain within its current target range of 0.00 to 0.25 percent throughout next year. However, we doubt that officials will remain on the sideline through 2023, as the September dot plot suggests. We already had doubts about steady policy and near-zero short term rates for more than three years; we were looking for the first rate hike to occur in late 2022, but with an effective vaccine, we would pull liftoff even closer -- to the first half of 2022.

The slow response from the Fed will serve as an anchor for short-term interest rates, but intermediate and long-term interest rates will probably move in close step with the economy. Interest rates could surge if the economy were to jump, but we suspect that production and distribution of the vaccine will occur slowly, leaving a gradual acceleration in the economy and a gradual pickup in interest rates. Given the unique nature of the situation, it is difficult to assess the likely increase in rates, but our early and tentative view would put the 10-year Treasury rate in a range of 1.5 to 2.0 percent at the end of next year. By the end of 2022, we would expect the 10-year rate to return to the range in place before the onset of the pandemic (2.5 to 3.0 percent).

Treasury Funding

The pattern suggested above, modest increases in short-term rates and larger shifts in the intermediate and long-term maturity sectors, suggests a steepening in the yield curve. Such a development is not surprising, as it is the normal pattern in the early stages of a business expansion. In the current instance, we suspect that funding by the Treasury and a shift in the Fed's quantitative easing program will reinforce the normal yield curve steepening.

In one sense, the Treasury seems to be in a good position to meet funding needs in the current fiscal year. The Congressional Budget Office expects the underlying deficit in fiscal year 2021 to total \$1.8 trillion, and we would add an additional amount to cover funding needs outside the deficit (such as student loans). We expect Congress to provide additional fiscal support at some point, and the federal government will probably pickup the tab for a good portion of the production and distribution of the vaccine. The amount of additional stimulus is highly uncertain, but \$1.0 trillion represents a reasonable place holder (and is the amount assumed by the Treasury Department in its announcement of the mid-quarter refunding; table).

Cash needs of \$2.9 trillion can be easily covered by the funds raised under the current schedule of auctions for coupon securities (at the sizes announced at the mid-quarter refunding) and by drawing down the government's elevated cash balance. The Treasury Department currently has a cash balance of approximately \$1.6 trillion, far above the pre-virus norm of \$300 to \$400 billion (excess buildup of cash for emergency/precautionary purposes during the pandemic). The

Treasury Funding

	\$ trillions
Borrowing Requirements	
Underlying Deficit*	1.9
Additional Stimulus	1.0?
Total	2.9
Funding Sources**	
Coupon Issuance	2.7
Cash Balance Drain***	1.2
Uncertainties	
Cash Management Bills	1.8
Fed Purchases****	2.7
Total Fed Holdings	6.6

* CBO projection of the budget deficit plus other borrowing not related to the deficit, such as funding for student loans.

** The Treasury could also raise funds in the bill market, but in recent weeks the Treasury has been only refunding outstanding issues and not raising new cash.

*** The cash balance drain is equal to the current cash balance of \$1.6 trillion less a presumed normal holding of approximately \$400 billion.

**** Fed purchases of Treasuries and mortgage-backed securities since mid-March

Source: Daiwa Capital Markets America



Treasury also could raise funds in the bill market, although it is currently raising only a modest amount of new cash in this market and will probably continue to emphasize the coupon market to raise new funds.

While the Treasury Department will not have difficulties in covering deficit and other needs, there are some challenges that could leave the funding market a bit less friendly. The fiscal stimulus provided by the four legislative measures in the spring was financed to a large degree by cash management bills (ad hoc Treasury bills to cover temporary or unexpected funding needs). At some point in the not too distant future, these short term securities will have to be refunded in the coupon security market. The paydown of the CMBs would tend to put downward pressure on short-term interest rates while additional supply in the intermediate and long segments of the maturity spectrum could nudge rates higher than they would be otherwise. This funding shift will reinforce the steepening of the yield curve that often occurs in the early stages of a business expansion.

We also wonder about the Federal Reserve's quantitative easing program. The Fed purchased aggressively in the early stages of the current effort, and it remains active with purchases of \$80 billion of Treasuries per month. The Fed also is buying \$40 billion of new mortgage-backed securities every month, which could be helping to contain rate pressure in the fixed income market. At some point, the Fed will stop buying securities, which could alter the tone in the fixed-income market. The situation will be even more challenging if the Fed begins to redeem the securities it has acquired in current and previous QE programs. The Fed's absence in the intermediate and long ends of the market, not to mention its potential redemption of securities, also points to higher interest rates.



Review

Week of Nov. 9, 2020	Actual	Consensus	Comments
CPI (October)	0.0% Total, 0.0% Core	0.1% Total, 0.2% Core	Consumer prices were well contained in October, as both the headline CPI and the core component were unchanged. The headline index almost rounded up to 0.1% (0.045%), as moderate increases in the prices of food (0.187%) and energy (0.142%) nearly countered the minuscule shift in the core component (0.012%). The increase in the food component followed three months of net downward movement, but that easing was only a partial offset to pandemic-related increases in prior months. Energy prices have increased for five consecutive months, but the advances have offset only a portion of declines in the spring. In the core component, some of the restraint represented slack demand because of the pandemic (apparel prices fell 1.2%, hotel fees dropped 3.7%). Other areas cooled after showing pressure in recent months (used cars). Year-over-year changes in October also were subdued: 1.2% overall, down from 2.5% in January; 1.6% excluding food and energy, down from 2.4% in February.
Federal Budget (October)	\$284.1 Billion Deficit	\$275.0 Billion Deficit	Federal revenues were light because of the virus-constrained economy in October, falling 3.2% from the same month last year. On the outlay side, pandemic-related support from the federal government is winding down, but it is still fueling expenditures to a degree. Federal spending of \$522 billion was well shy of the average of \$820 billion from April through July, but substantially larger than the total of \$380 billion in the same month last year. The deficit of \$284 billion for October was considerably wider than the typical shortfall for the first month of the fiscal year (an average of \$96 billion in the prior five Octobers).
PPI (October)	0.3% Total, 0.2% Core*	0.2% Total, 0.2% Core*	The increase in the PPI in October was a tad slower than the average advance of 0.4% in the prior five months. Food prices rose 2.4% after an increase of 1.2% in September. Despite the recent pressure, food prices at the producer level have risen less than one percent in the first 10 months of 2020. Energy prices rose 0.8%, but they are off 13.5% from the previrus peak in February. Prices excluding food and energy rose only 0.1% after an average increase of 0.37% in the prior three months. Prices were restrained on a year-over-year basis, with the headline index increasing 0.5% and prices excluding food and energy up 1.1%.
Consumer Sentiment (November)	77.0 (-4.8 Index Pts.)	82.0 (+0.2 Index Pt.)	Consumer sentiment fell 5.9% in Early November, as a resurgence in Covid cases likely weighed on attitudes. The latest decline reversed a portion of the modest rally in the previous two months and left sentiment only 7.2% above the virus-related trough of 71.8 in April (or 23.8% off the pre-virus peak of 101.0 in February).

* The core PPI excludes food, energy, and trade services. Sources: Bureau of Labor Statistics (CPI, PPI); U.S. Treasury Department (Federal Budget); University of Michigan Survey Research Center (Consumer Sentiment); Consensus forecasts are from Bloomberg



Preview

Week of Nov. 16, 2020	Projected	Comments	
Retail Sales (October) (Tuesday)	0.4% Total, 0.5% Ex-Autos	With sales of new vehicles dipping in October, the auto component of retail sales will probably ease from its elevated reading in September. Lower prices of gasoline could restrain nominal sales at service stations. Sales excluding autos and gasoline have already moved above pre-virus levels, but catchup in some lagging areas could lead to a further advance.	
Industrial Production (October) (Tuesday)	0.7%	With employment up and the workweek slightly longer, the manufacturing component of industrial production should register a sharp gain. Increases in employment and the rotary rig count point to favorable prospects in the mining sector. With temperatures close to normal in October, utility output is likely to be little changed.	
Housing Starts (October) (Wednesday)	1.500 Million (+6.0%)	With new homes selling briskly and builder sentiment at a record level, housing starts probably rose for the fifth time in the past six months, moving close to the weather-aided levels around the turn of the year (average of 1.590 million from December to February).	
Existing Home Sales (October) (Thursday)	6.30 Million (-3.7%)	Dips in pending home sales and mortgage applications for a home purchase suggest a cooling in activity after robust advances from June through September. The expected reading in October, although off from that in September, is comfortably above the pre-virus high of 5.76 million in February.	
Leading Indicators (October) (Thursday)	0.7%	With few indicators making negative contributions, and with sizeable positive contributions from ISM new orders and claims for unemployment insurance, the index of leading economic indicators is likely to register its sixth consecutive increase. If the forecast proves accurate, the index will have recouped 73% of the ground lost during the spring.	

Source: Forecasts provided by Daiwa Capital Markets America

- 6 -



Economic Indicators

November/Dee	cember 2020			
Monday	Tuesday	Wednesday	Thursday	Friday
9	10	11	12	13
	NFIB SMALL BUSINESS OPTIMISM INDEX Aug 100.2 Sept 104.0 Oct 104.0 JOLTS DATA Openings (000) Quit Rate July 6,897 2.1% Aug 6,352 2.0% Sept 6,436 2.1%	VETERANS DAY	UNEMPLOYMENT CLAIMS Initial Continuing (Millions) Oct 17 0.797 7.823 Oct 24 0.758 7.222 Oct 31 0.757 6.786 Nov 07 0.709 N/A CPI Total Core Aug 0.4% 0.4% Sept 0.2% 0.2% Oct 0.0% 0.0% FEDERAL BUDGET 2020 2019 Aug -\$200.0B -\$200.3B Sept -\$124.6B \$82.8B Oct -\$284.1B -\$134.5B	PPI Final Demand Core* Aug 0.3% 0.3% Sept 0.4% 0.4% Oct 0.3% 0.2% CONSUMER SENTIMENT Sept 80.4 Oct 81.8 Nov Nov 77.0 77.0
16	17	18	19	20
EMPIRE MFG (8:30) Sept 17.0 Oct 10.5 Nov	RETAIL SALES (8:30) Total Ex.Autos Aug 0.6% 0.5% Sept 1.9% 1.5% Oct 0.4% 0.5% IMPORT/EXPORT PRICES (8:30) Non-petrol Nonagri. Imports Exports Aug 0.8% 0.8% Sept 0.7% 0.3% Oct - - IP Cap.Util. Aug 0.4% Aug 0.4% 72.0% Sept -0.6% 71.5% Oct 0.7% 72.2% BUSINESS INVENTORIES (10:00) Inventories Sales Jul 0.1% 3.4% Aug 0.3% 0.6% Sept 0.6% 0.8% NAHB HOUSING INDEX (10:00) Sept Sept 83 0.6% Nov - - TIC DATA (4:00) Total Net L-T July -\$89.5B \$11.3B Aug<	HOUSING STARTS (8:30) Aug 1.388 million Sept 1.415 million Oct 1.500 million	INITIAL CLAIMS (8:30) PHILLY FED INDEX (8:30) Sept 15.0 Oct 32.3 Nov EXISTING HOME SALES (10:00) Aug 5.98 million Oct 6.30 million LEADING INDICATORS (10:00) Aug 1.4% Sept 0.7% Oct 0.7%	
23	24	25	26	27
CHICAGO FED NATIONAL ACTIVITY INDEX	FHFA HOME PRICE INDEX S&P CORELOGIC CASE-SHILLER 20-CITY HOME PRICE INDEX CONSUMER CONFIDENCE	INITIAL CLAIMS U.S. INTERNATIONAL TRADE IN GOODS ADVANCE INVENTORIES REVISED Q3 GDP DURABLE GOODS ORDERS PERSONAL INCOME, CONSUMPTION, PRICES NEW HOME SALES REVISED CONSUMER SENTIMENT FOMC MINUTES	THANKSGIVING	
30	1	2	3	4
CHICAGO PURCHASING MANAGERS' INDEX	ISM MANUFACTURING INDEX CONSTRUCTION SPENDING	ADP EMPLOYMENT REPORT BEIGE BOOK	INITIAL CLAIMS ISM SERVICES INDEX	EMPLOYMENT REPORT
PENDING HOME SALES Forecasts in Bold. * The col	VEHICLE SALES re PPI excludes food, energy and			FACTORY ORDERS



Treasury Financing

US

November/December 2020

Monday	Tuesday	Wednesday	Thursday	Friday
9	10	11	12	13
AUCTION RESULTS: Rate Cover 13-week bills 0.100% 2.65 26-week bills 0.110% 2.98 3-year notes 0.250% 2.40 42-day CMB 0.095% 3.31 119-day CMB 0.100% 3.77	AUCTION RESULTS: Rate Cover 10-yr notes 0.960% 2.32 ANNOUNCE: \$30 billion 4-week bills for auction on November 12 \$35 billion 8-week bills for auction on November 12 \$25 billion 105-day CMBs for auction on November 12 \$30 billion 154-day CMBs for auction on November 12 SETTLE: \$30 billion 8-week bills \$35 billion 8-week bills \$35 billion 105-day CMBs \$30 billion 154-day CMBs	VETERANS DAY	AUCTION RESULTS: Rate Cover 4-week bills 0.085% 3.40 8-week bills 0.090% 3.25 30-yr bonds 1.680% 2.29 105-day CMB 0.095% 3.78 154-day CMB 0.005% 3.78 154-day CMB 0.100% 3.38 ANNOUNCE: \$105 billion 13-,26-week bills for auction on November 18 \$12 billion 10-year TIPS for auction on November 18 \$12 billion 10-year TIPS for auction on November 18 \$12 billion 42-day CMBs for auction on November 17 \$30 billion 419-day CMBs for auction on November 17 SETTLE: \$105 billion 13-,26-week bills \$30 billion 13-,26-week bills \$30 billion 119-day CMBs	
16	17	18	19	20
AUCTION: \$105 billion 13-,26-week bills SETTLE: \$54 billion 3-year notes \$41 billion 10-year notes \$27 billion 30-year bonds	AUCTION: \$30 billion 42-day CMBs \$30 billion 14-day CMBs ANNOUNCE: \$30 billion* 4-week bills for auction on November 19 \$35 billion* 8-week bills auction on November 19 SETTLE: \$30 billion 4-week bills \$35 billion 8-week bills \$35 billion 105-day CMBs \$30 billion 154-day CMBs	AUCTION: \$27 billion 20-year bonds	AUCTION: \$30 billion* 4-week bills \$35 billion* 8-week bills \$12 billion 10-year TIPS ANNOUNCE: \$105 billion* 13-,26-week bills for auction on November 23 \$24 billion* 2-year FRNs for auction on November 24 \$56 billion* 2-year notes for auction on November 23 \$56 billion* 5-year notes for auction on November 23 \$56 billion* 7-year notes for auction on November 24 SETLE: \$105 billion 13-,26-week bills \$30 billion 42-day CMBs \$30 billion 119-day CMBs	
23	24	25	26	27
AUCTION: \$105 billion* 13-,26-week bills \$56 billion* 2-year notes \$57 billion* 5-year notes	AUCTION: \$24 billion* 2-year FRNs \$56 billion* 7-year notes ANNOUNCE: \$30 billion* 4-week bills for auction on November 25 \$35 billion* 8-week bills for auction on November 25 SETTLE: \$30 billion* 4-week bills \$35 billion* 8-week bills	AUCTION: \$30 billion* 4-week bills \$35 billion* 8-week bills ANNOUNCE: \$105 billion* 13-,26-week bills for auction on November 30 \$34 billion* 52-week bills for auction on December 1	THANKSGIVING	SETTLE: \$105 billion* 13-,26-week bills \$24 billion* 2-year FRNs
30	1	2	3	4
AUCTION: \$105 billion* 13-,26-week bills SETTLE: \$27 billion 20-year bonds \$12 billion 10-year TIPS \$56 billion* 2-year notes \$57 billion* 5-year notes \$56 billion* 7-year notes	AUCTION: \$34 billion* 52-week bills ANNOUNCE: \$30 billion* 4-week bills for auction on December 3 \$35 billion* 8-week bills for auction on December 3 SETTLE: \$30 billion* 4-week bills \$35 billion* 8-week bills		AUCTION: \$30 billion* 4-week bills \$35 billion* 8-week bills ANNOUNCE: \$105 billion* 13-,26-week bills for auction on December 7 \$56 billion* 3-year notes for auction on December 8 \$38 billion* 10-year notes for auction on December 9 \$24 billion* 30-year bonds for auction on December 10 SETTLE: \$105 billion* 13-,26-week bills \$34 billion* 52-week bills	

*Estimate