WELLS FARGO

Weekly — February 25, 2022

Weekly Economic & Financial Commentary

United States: **Russia-Ukraine Conflict May Push Up Prices, but Inflation Has Yet to Slow Spending**

- The Russian invasion of Ukraine dominated news headlines this week, and we cover the economic and financial implications of the conflict in a number of sections. One of the initial implications of the Russia-Ukraine conflict domestically is that higher oil prices will likely keep inflation higher for longer. That said, while consumers continue to contend with higher prices we haven't yet seen inflation meaningfully weigh on spending.
- Next week: ISM Manufacturing (Tue), ISM Services (Thur), Nonfarm Payrolls (Fri)

International: **Risk Assets Came Under Pressure This Week**

- The military conflict sent risk-assets prices, particularly within the emerging markets, sharply lower. Sovereign bond yields jumped, while Russian credit default swap spreads spiked to the highest on record. Other risk-sensitive currencies and asset prices within the emerging markets fell sharply lower as well.
- Next week: India GDP (Mon), Bank of Canada Rate Decision (Wed), Brazil GDP (Fri)

Interest Rate Watch: **Russia Roils the Rates Market**

- Russia's invasion of Ukraine this week rocked financial markets and added additional uncertainty to the interest rate outlook. Initially, Treasury yields plunged across the entire curve, but yields have shaken off the initial shock.

Credit Market Insights: **Small Businesses Are on the Mend, but Full Recovery May Be a Marathon**

- *Small Business Credit Survey* data show small businesses' circumstances improved last year, but there remains a long road to pre-pandemic standards. But future growth expectations rose, and signal there's ample runway for small businesses' recovery to take off.

Topic of the Week: **Some Economic Implications of the War Between Russia and Ukraine**

- Parsing out the precise economic implications of the war is essentially impossible, but we lay out some data and scenarios in our column and report. While we are not necessarily forecasting that oil prices will remain well above recent averages, we use a macroeconometric model to analyze the potential economic implications of higher oil prices as a result of the recent hostilities.

Wells Fargo U.S. Economic Forecast

	Actual				Forecast				Actual		Forecast	
	2021				2022				2020	2021	2022	2023
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q				
Real Gross Domestic Product [1]	6.3	6.7	2.3	7.0	2.1	2.7	3.7	3.6	-3.4	5.7	3.7	2.9
Personal Consumption	11.4	12.0	2.0	3.1	2.8	2.0	2.7	2.6	-3.8	7.9	3.1	2.3
Consumer Price Index [2]	1.9	4.8	5.3	6.7	7.6	6.7	5.9	4.7	1.2	4.7	6.2	2.6
"Core" Consumer Price Index [2]	1.4	3.7	4.1	5.0	6.3	5.6	5.4	4.9	1.7	3.6	5.5	2.9
Quarter-End Interest Rates [3]												
Federal Funds Target Rate	0.25	0.25	0.25	0.25	0.50	1.00	1.25	1.50	0.50	0.25	1.06	2.06
Conventional Mortgage Rate	3.08	2.98	2.87	3.10	3.80	3.90	3.95	4.00	3.12	2.95	3.91	4.13
10 Year Note	1.74	1.45	1.52	1.52	1.95	2.05	2.15	2.20	0.89	1.45	2.09	2.33

Forecast as of: February 25, 2022

[1] Compound Annual Growth Rate Quarter-over-Quarter [2] Year-over-Year Percentage Change [3] Annual Numbers Represent Average

Source: U.S. Dept. of Commerce, U.S. Dept. of Labor, Federal Reserve Board and Wells Fargo Economics

Please see our full U.S. Economic Forecast and our updated Consumer Dashboard and Pressure Gauge.

U.S. Review

Russia-Ukraine Conflict May Push Up Prices, but Inflation Has Yet to Slow Spending

The Russian invasion of Ukraine dominated news headlines this week, as Russian President Putin moved forward with a full-blown military offensive into Ukraine on Thursday. We cover the economic and financial implications of the conflict in a number of sections this week. In International Review, we discuss the initial actions of Russia's invasion and the impact on emerging markets. Our Interest Rate Watch section details the effect on interest rates, and finally in this week's Topic of the Week, we detail some potential economic implications of the conflict.

The United States moved with its allies to roll out new sanctions against Russia on Thursday. Specifically, the United States implemented new sanctions on Russia's largest financial institutions, which, according to the government, cover 80% of the banking sector. The United States also restricted more exports to Russia of key technological goods. The sanctions are unprecedented and should limit Russia's access to the global financial system and defense equipment, but as President Biden acknowledged in a press conference Thursday, it will take some time for Moscow to feel the full effects of these actions.

From an economic standpoint, the United States has a fairly minimal amount of exposure to the initial effects of the conflict. While we find meaningful rises in oil prices and declines in equity prices as a result of the conflict would exert some headwinds on real GDP growth, it would not be enough to send the U.S. economy into recession (see Topic of the Week). Obviously, there are many other implications of the conflict, and as the responses of the combatants and other parties evolve in the coming weeks and months, we'll continue to refine the implications for the economy.

That said, we did increase our inflation forecasts amid the rise in commodity prices. The crisis in Ukraine has fueled concerns about disruptions to the global supply of oil, given that Russia accounts for about 10% of global production. Furthermore, with U.S. consumers not fully insulated from the recent surge in natural gas prices in overseas markets, prices for energy services as measured by the U.S. CPI are expected to remain strong over the near to medium term. We've thus increased our inflation forecasts by a few tenths in the near term and now look for the annual rate of headline CPI to remain north of 7% through April (chart). Our upwardly adjusted inflation forecast also extends beyond the more recent expectation of higher commodity prices and reflects broad momentum in the January inflation data.

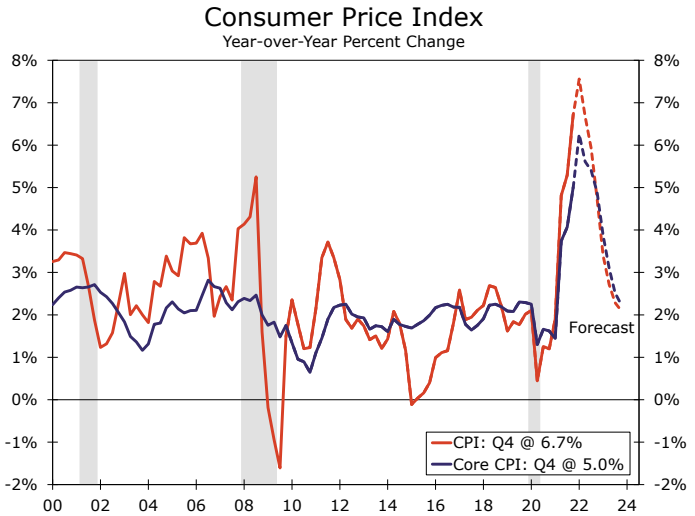
Indeed, the PCE deflator rose a solid 0.6% in January and price growth in December was also revised higher. The gains in prices were broad-based with goods prices continuing to march higher and services inflation gaining momentum. The 0.4% gain in services prices lifted the year-ago rate to its highest in over 30 years.

But even in the face of higher prices, households continued to spend at a steady pace in January with real personal consumption expenditures rising a solid 1.5% during the month. This outturn was better than we had anticipated for real spending in January, and as such, we have upwardly revised our Q1 PCE forecast to 2.8% from 1.0% previously. Our overall thinking remains more or less the same, with services spending driving much of the increase in consumption this year, and this forecast adjustment merely reflects factoring in the actual reported data and our updated price expectations.

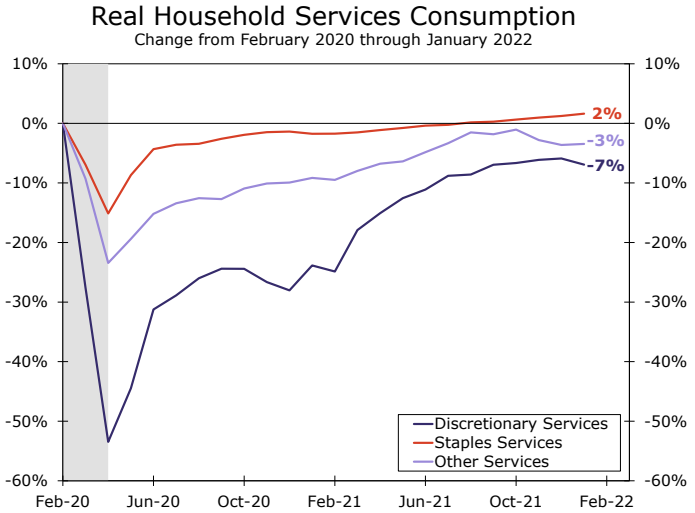
The previously released retail sales data foreshadowed the solid outturn in goods spending. But real services spending also rose 0.1% in January. Although only a modest gain, this pickup in services activity came during the height of the Omicron variant in the United States. Beneath the headline increase, however, services activity was driven by less discretionary categories of spending or "staples," like housing, healthcare and financial services. Discretionary spending categories tied to leisure spending like transportation, recreation and food services actually declined 1.1% during the month. This marked the first decline in "discretionary" services spending in nearly a year (chart) and was likely a result of the worse virus situation. We still think the overall spending dynamics suggest household behavior will continue to gradually return to normal as they seek out in-person activity.

In addition to rapidly rising prices, consumers are faced with weaker income growth prospects this year. January marked the first month in nearly two years without fiscal transfers making their way to households, and admittedly, we thought we'd see more of an income cliff in the data as a result. Total personal income was flat in January and disposable personal income rose a modest 0.1%. That said, adjusting for inflation real disposable personal income, or a more accurate reflection of consumers' purchasing power, fell 0.5%. Higher wages and salaries continue to be a source of income

for households that we believe will help support consumer spending this year amid the tight labor market.



Source: U.S. Department of Labor and Wells Fargo Economics



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

Even as the virus situation improves and activity gradually shifts from goods to services, demand for goods should remain strong this year. Scant levels of inventory mean businesses need to replenish inventory. Durable goods orders held up reasonably well in January, rising a solid 1.6%. This not only beat the consensus expectation for a 1.0% increase, but the prior month's gain was also revised up to a 1.2% gain from a previous reported decline of 0.7%, emphasizing heightened momentum in orders. In total, this puts the level of new orders up 2.7% since November and at the highest level since mid-2014.

Stripping away transportation essentially cuts the monthly gain in half to 0.7%, as a 15.6% rise in nondefense aircraft boosted monthly orders. But the underlying trend in orders was still solid with core capital goods orders up a sizable 0.9% last month, marking the largest monthly gain since September. Other supporting line items included a 2.3% rise over the month in machinery orders as well as more modest 0.2% and 0.1% increases in primary metals and fabricated metals, respectively. Electrical equipment orders stumbled as they declined 0.7%, while vehicles and parts also weakened last month as orders declined 0.4%, the first negative print in three months.

Despite manufacturers still facing difficulties procuring inputs, shipments rose 1.2% in January, ringing in the fifth consecutive month of gains. Core capital goods shipments (including aircraft) rose an impressive 2.1% over the month, which marks the largest monthly gain in 10 months and positions equipment spending to be solid in the first quarter. Inventories continue to struggle to keep up with surging demand, only rising 0.4% over the month, while unfilled orders climbed another 0.9%. The inventories-to-shipments ratio declined to 1.77, its lowest since last July, when booming demand exacerbated supply chain issues and left manufacturers strapped to fill orders.

Supply challenges continue to extend beyond manufacturing and are crimping home sales. New home sales fell 4.5% to a 801K-unit pace in January, which puts sales nearly 20% lower than the blazing-hot pace experienced during January 2021. But this moderation in sales is largely due to low inventories and shortages of building materials and laborers, which have brought on long delays and uncertain completion dates. There were 106K homes for sale in January where construction has not yet started, the highest ever. Such scant levels of inventory continue to push up prices, which in combination with rising mortgage rates may weigh on housing activity in coming months. (Return to Summary)

U.S. Outlook

Weekly Domestic Indicator Forecasts

Date	Indicator	Period	Consensus	Wells Fargo	Prior
1-Mar	ISM Manufacturing Index	Feb	57.9	58.0	57.6
1-Mar	Construction Spending (MoM)	Jan	-0.4%	0.2%	0.2%
3-Mar	ISM Services Index	Feb	61.0	60.7	59.9
4-Mar	Nonfarm Payrolls	Feb	400K	450K	467K
4-Mar	Unemployment Rate	Feb	3.9%	3.9%	4.0%
4-Mar	Average Hourly Earnings (MoM)	Feb	0.5%	0.5%	0.7%

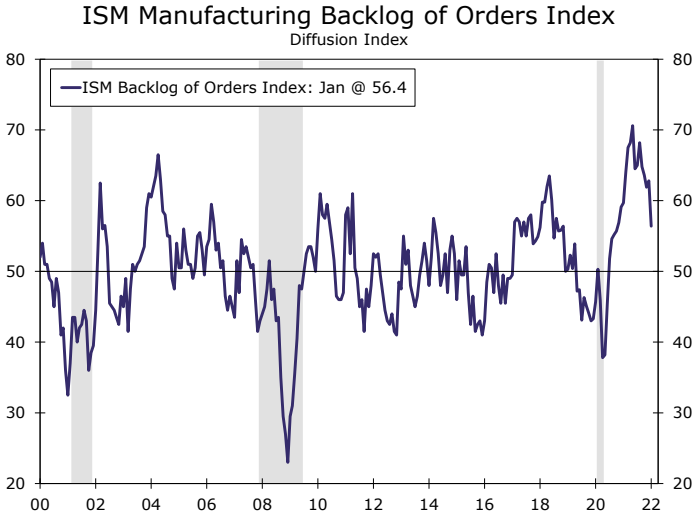
Forecast as of February 25, 2022

Source: Bloomberg Finance L.P. and Wells Fargo Economics

ISM Manufacturing Index • Tuesday

The Omicron wave weighed on manufacturing activity in January amid a pullback in demand and increased absences in the workplace. However, the ISM manufacturing index remained firmly in expansionary territory despite Omicron headwinds, and there continued to be incremental signs of thawing in supply chains. The "backlog of orders" subcomponent dropped 6.4 points in January. This was the biggest decline since April 2020 and supports the notion that supply chain problems are somewhat easing. Supplier delivery times, while still slow in an absolute sense, also improved slightly in January, the third consecutive month of improvements.

Much lower COVID case counts in February should be supportive of current production and employment. More interesting in our view will be the subcomponents most directly related to global supply chains, such as backlog of orders, supplier delivery times and customer inventories. Additional incremental progress in February would be an encouraging sign that normalizing supply chains can help offset the inflationary pressure emanating from rising commodity prices.

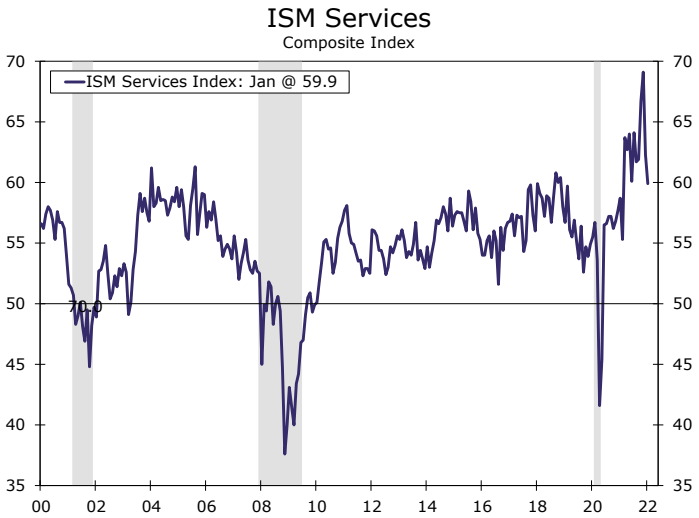


Source: Institute for Supply Management and Wells Fargo Economics

ISM Services Index • Thursday

COVID disruptions were more evident in the January reading of the ISM services index. The drop in the ISM services index to its lowest level in 11 months reflects how a lack of available workers and persistent supply shortages are weighing on firms' ability to keep up with activity in the service sector despite what is still a strong, if somewhat moderating, demand environment.

February should see some improvement as worker absences recede and labor force participation shows continued signs of ticking higher. Like the manufacturing sector, supplier deliveries will be one area to watch closely. Decreased lead times in December and January relative to the fall were an encouraging sign, but whether this progress will continue in February and beyond remains an open question. Bigger picture, economic activity in the first quarter still appears to be limited most by COVID and supply chain disruptions rather than weak aggregate demand.

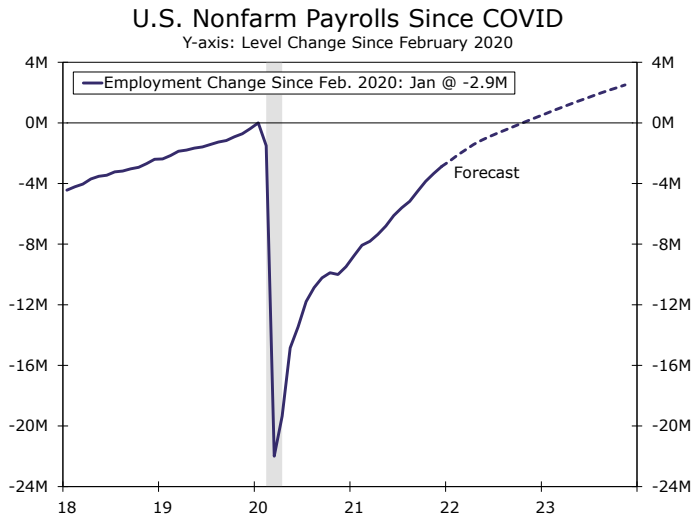


Source: Institute for Supply Management and Wells Fargo Economics

Nonfarm Payrolls • Friday

The 467K increase in nonfarm payrolls in January was surprising, given that COVID case counts peaked around the survey week for the employment report. The employment gains were broad-based, and benchmark revisions to the previous year's data suggested that the labor market is a bit closer to full employment than previously believed.

There is plenty of concerning news in the world right now, from the Russia-Ukraine conflict to sky-high inflation. But the U.S. employment recovery continues to be a bright spot amid the carnage. Total nonfarm payrolls have recovered 87% of the losses incurred during the pandemic, and we expect continued strong gains in February. Our forecast of 450K new jobs in February is predicated on lower COVID cases, robust labor demand and improving labor supply. We project that U.S. employment will recover to its pre-pandemic level by year-end, giving the Fed plenty of cover to tighten monetary policy at a steady pace this year as the central bank fights above-target inflation. (Return to Summary)

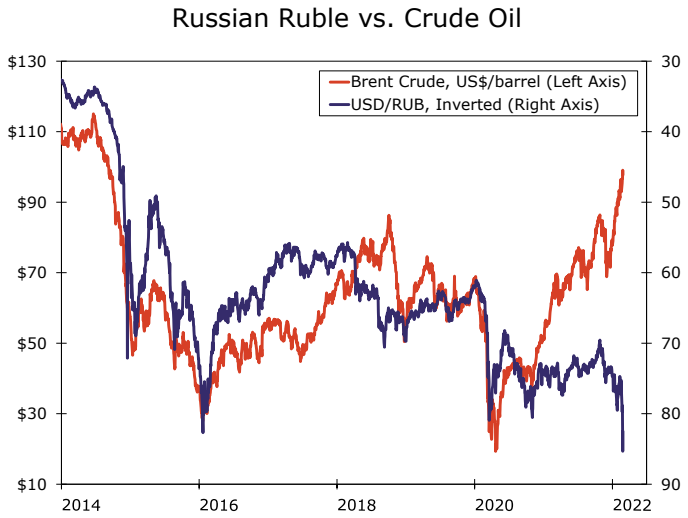


Source: U.S Department of Labor and Wells Fargo Economics

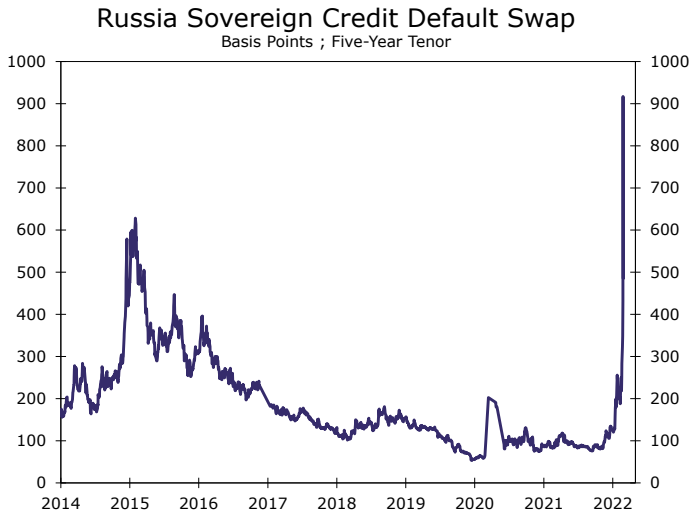
International Review

Russia-Ukraine Tensions Boil Over into Military Conflict

This week, tensions on the Ukrainian border spilled over into a full-blown military conflict. Early in the week, President Putin officially acknowledged separatist groups in the Donbas region, which many believed was the final step to an eventual invasion. Those theories proved to be true, as President Putin deployed troops and moved forward with a fully fledged military offensive into Ukraine on Thursday. Russian forces invaded from the East along the Donbas border, while also advanced from the northern and southern borders as well. Media reports suggest the Ukrainian capitol of Kyiv is the primary target of Russia's invasion. In response, the United States and Western allies have deployed additional forces to NATO-backed countries; however, U.S. and other Western governments have not entertained the possibility of deploying troops into Ukraine. Instead, the U.S., EU and U.K. governments moved forward with sanctions designed to induce behavioral changes. These sanctions include targeting state-owned financial institutions, high net-worth Russian individuals as well as Russian sovereign debt. Over time, sanctions could weigh on Russia's economy, but for the moment, may not be a strong enough deterrent to halt the Russian offensive.



Source: Bloomberg Finance L.P. and Wells Fargo Economics



Source: Bloomberg Finance L.P. and Wells Fargo Economics

Risk Assets Came Under Pressure This Week

Military conflict sent risk-assets prices, particularly within the emerging markets, sharply lower. Russian equity prices collapsed over 30% on Thursday alone and are now almost 50% lower year to date. Sovereign bond yields jumped, while Russian credit default swap spreads spiked to the highest on record. Other risk-sensitive currencies and asset prices within the emerging markets fell sharply lower as well. Eastern European currencies such as the Hungarian forint, Polish zloty and Czech koruna came under pressure, while higher-beta currencies in Latin America and Emerging Asia depreciated sharply. Gauging sentiment is difficult; however, as military conflict persists and sanctions continue to be imposed, local Russian asset prices could trade at depressed levels for longer and spill over to other emerging markets is certainly possible. Safe-haven assets such as the U.S. dollar, Japanese yen and U.S. Treasuries saw strong inflows toward the end of the week, and should the current situation persist or even escalate, these assets could see additional capital inflows.

We still wish to refrain from forecasting how this scenario unfolds from here. Predicting geopolitical developments is almost impossible, and our knowledge of the situation depends on media updates and official political statements. With that said, as the situation evolves and conditions change, our forecasts of the global economy as well as currency markets could change rapidly. Now that oil prices have spiked, our international inflation forecasts have upside risk and risks around our foreign GDP forecasts are now tilted toward the downside. As far as our currency forecasts, emerging market currencies could come under more long-term pressure than we anticipate, while the U.S. dollar could be more resilient than we currently forecast. (Return to Summary)

International Outlook

Weekly International Indicator Forecasts

Date	Indicator	Period	Consensus	Wells Fargo	Prior
28-Feb	India GDP (YoY)	Q4	5.9%	--	8.4%
1-Mar	Canada Quarterly GDP Annualized	Q4	6.5%	6.2%	5.4%
2-Mar	Bank of Canada Rate Decision	2-Mar	0.50%	0.50%	0.25%
2-Mar	Eurozone CPI (YoY)	Feb	5.3%	--	5.1%
4-Mar	Brazil GDP (YoY)	Q4	1.0%	--	4.0%

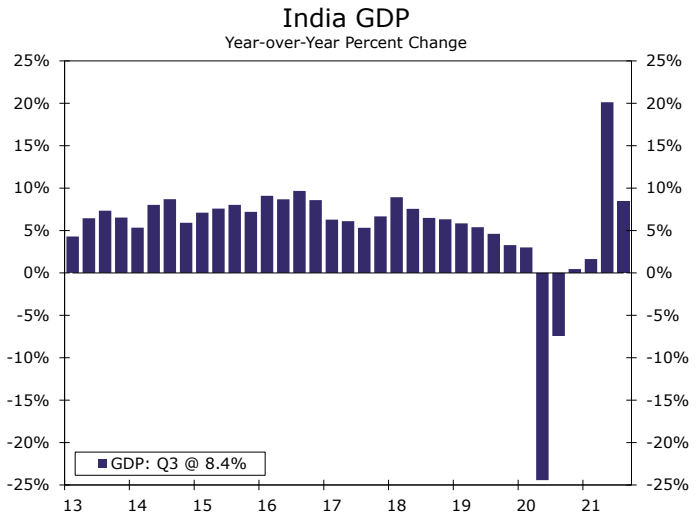
Forecast as of February 25, 2022

Source: Bloomberg Finance L.P. and Wells Fargo Economics

India GDP • Monday

Q4-2021 data will be released early next week in India, and while we expect data to indicate a slowdown relative to Q3, we still believe India's economy is in the midst of a robust recovery. India was one of the countries hardest hit by the Delta variant; however, Omicron did not have as severe of an impact on the local economy. In that sense, India was able to avoid new restrictions and consumption should be broadly supported as a result. Consensus forecasts call for India's economy to grow 5.9% year-over-year in Q4.

In 2022, we expect India's economy to achieve one of the highest growth rates in the world at over 8%. As the COVID impediments to growth recede, India's economy should be one of the key beneficiaries. In addition, the Reserve Bank of India (RBI) seems committed to keeping monetary policy accommodative for the time being. This week, minutes of the RBI February meeting revealed all policymakers opted to keep interest rates unchanged. Leading into the meeting, market participants expected the RBI to lift interest rates, so a more dovish central bank could support growth prospects going forward. Elevated oil prices could restrain growth over time; however, we are still optimistic on India's growth trajectory this year.

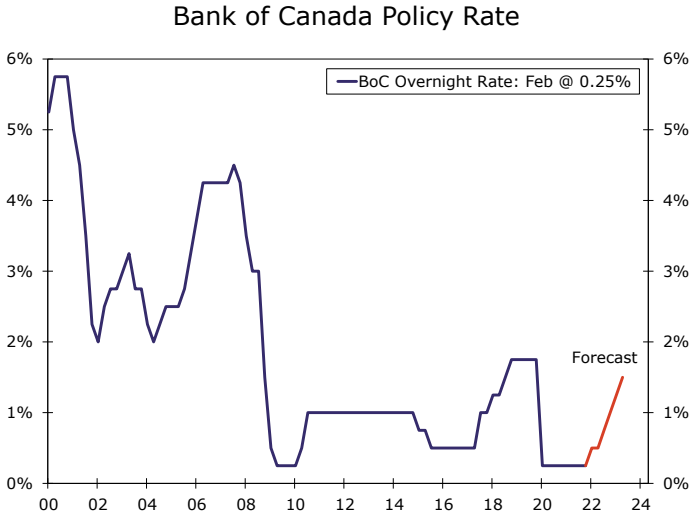


Source: Bloomberg Finance L.P. and Wells Fargo Economics

Bank of Canada • Wednesday

The Canadian economy continues to evolve in a way consistent with tighter monetary policy. Inflation continues to rise and the local labor market has shown improvement in recent months. As inflation and labor market dynamics evolve in this way, we continue to believe the Bank of Canada will look to raise interest rates. We recently adjusted our forecast and now believe BoC policymakers will raise policy rates 25 bps next week.

Bank of Canada policymakers were some of the more hawkish in the G10 during the pandemic. They were quick to end asset purchases ahead of schedule and also signaled rate hikes could be delivered earlier than expected. At its most recent meeting, however, financial markets were fully priced for a rate hike, and BoC policymakers opted to not lift interest rates. The Canadian dollar sold off in the immediate aftermath of that meeting. Now with oil prices spiking and inflation potentially moving higher as a result of Russia-Ukraine tensions, the Bank of Canada could be in a position to move earlier. We believe the BoC is still on pace for a hike next week and hikes throughout the course of 2022; however, we will be paying attention to any commentary around recent developments and their impact on monetary policy.

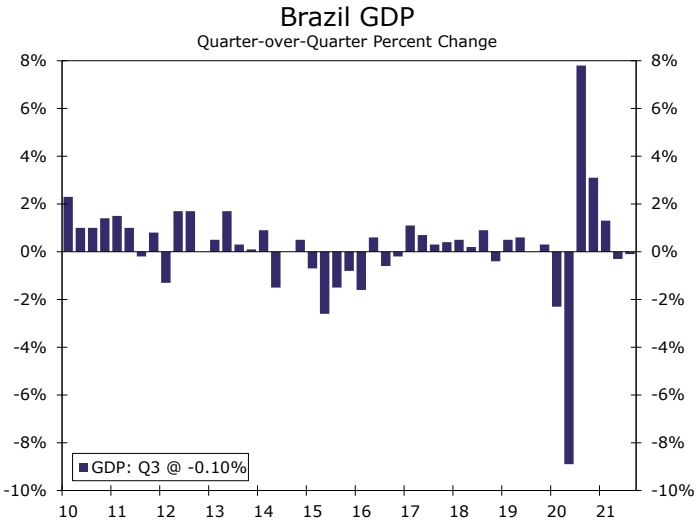


Source: Bloomberg Finance L.P. and Wells Fargo Economics

Brazil GDP • Friday

Brazil's economy fell into technical recession in Q3-2021 as the effects of aggressive monetary tightening and rising COVID cases restrained economic activity. Q4 GDP data will be released next week, and it's possible Brazil's recession extended into the fourth quarter as well. Brazil's central bank is still embarking on one of the most aggressive tightening campaigns in the world and hiked the Selic rate throughout Q4. Brazil also imposed restrictions on some parts of São Paulo to contain the spread of Omicron, which could also result in another quarterly contraction to close out the year.

Brazilian growth prospects are somewhat underwhelming in 2022. The Brazilian Central Bank is likely to keep tightening monetary policy, and despite our view that BCB policymakers will slow the pace of rate hikes this year, policy rates will likely still be taken into restrictive territory. In addition, elevated inflation and dwindling fiscal stimulus should weigh on consumer activity for most of the year. In that sense, we forecast Brazil's economy to grow around 1% this year, well below potential growth rates. (Return to Summary)



Source: Bloomberg Finance L.P. and Wells Fargo Economics

Interest Rate Watch

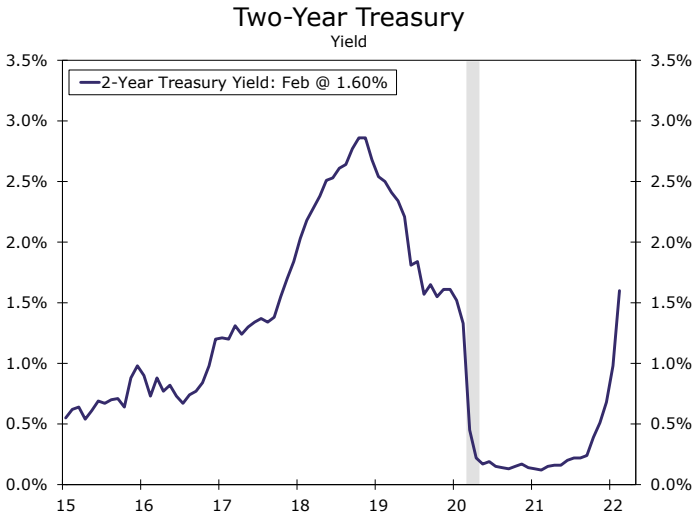
Russia Roils the Rates Market

Russia's invasion of Ukraine this week rocked financial markets and added additional uncertainty to the interest rate outlook. Initially, Treasury yields plunged across the entire curve, but yields have shaken off the initial shock. As of this writing, the yields on the two-year and 10-year Treasury notes are actually higher today than they were one week ago. Markets seem to believe that the Federal Reserve's policy tightening plans will be unperturbed by these geopolitical developments. Fed funds futures imply that markets are still priced for a bit more than six, 25 bps rate hikes in 2022, with the first hike occurring in just a few weeks on March 16.

Broadly speaking, we concur with the current market consensus. Our current forecast calls for five, 25 bps rate hikes this year. The developments in Ukraine could eventually push us to nudge our Fed call a little bit in either direction, but based on what we know now, we will probably not make sizable changes to our rates forecast. Put another way, we are not currently inclined to drop our call for five rate hikes down to one or two or up to seven or eight. The Fed is still likely to hike 25 bps on March 16 in our view, although the 50 bps hike some have suggested appears increasingly unlikely.

That said, the geopolitical developments are changing very quickly, and as we discuss in the Topic of the Week, the economic fallout from Russia's invasion remains highly uncertain. If the situation in Ukraine deteriorates markedly or spreads to other countries, this could significantly alter the economic outlook and by extension the outlook for monetary policy.

For now, we are leaving our federal funds rate forecast unchanged, and we have made only small tweaks to our forecasts for other U.S. interest rates. But we will be monitoring developments closely and will update our readers promptly if our thinking changes. (Return to Summary)



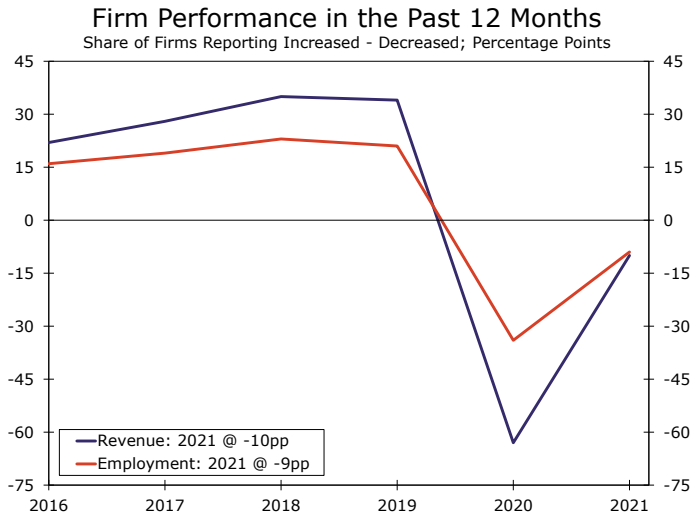
Source: Bloomberg Finance L.P., IHS Markit and Wells Fargo Economics

Credit Market Insights

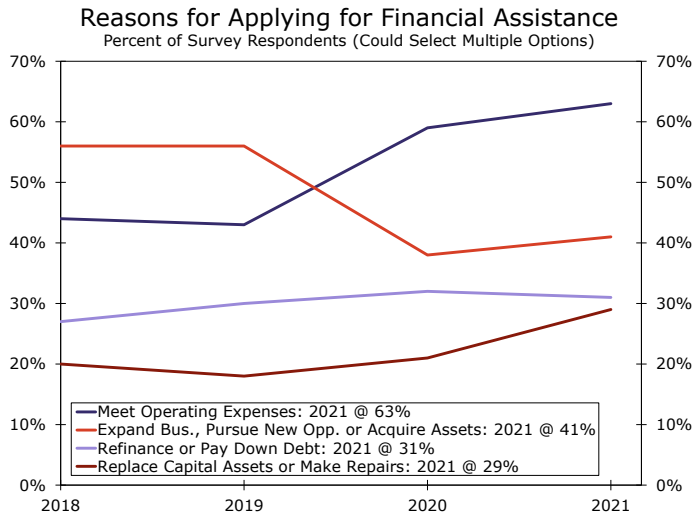
Small Businesses Are on the Mend, but Full Recovery May Be a Marathon

Fresh data dropped this week from the *Small Business Credit Survey*, a collaborative, annual report on employer firms produced by the 12 Federal Reserve branches. And while 2021 data point to somewhat improved circumstances for small businesses, it's clear there remains a long journey to pre-pandemic standards. Although a hefty 77% of firms at the time of the survey described the pandemic as having a moderate to large negative effect on their business, there were signs of a step in the right direction. Employer firms fared better in 2021 than 2020 as revenue and employment performance positively shifted, with a reduction in the share of firms reporting decreases and a rise in those reporting increases over the year (see chart). However, this was not enough to completely reverse the momentum, as even with the positive gains in 2021, both revenues and employment performance saw a larger overall share of firms reporting decreases than increases.

The progress indicates small businesses cannot be expected to recover overnight from the damage inflicted by COVID. The process is likely to take time considering the scars left by the pandemic, particularly for some of the most affected industries such as leisure & hospitality. But firms' optimism concerning the future signals that this may be just the beginning of the post-pandemic recovery. The employer firm expectation index, which is the share of firms reporting expected growth minus the share reporting expected declines, showed 42% of firms expect better revenue growth and 31% of firms see improved employment growth over the next year, marking respective 40 and 15 percentage point (pp) increases from 2020. There remains ample runway for small businesses' recovery to take off.



Source: Federal Reserve System and Wells Fargo Economics



Source: Federal Reserve System and Wells Fargo Economics

While revenues may be slowly making a rebound, where do the underlying financials of employer firms stand? More than half of firms described themselves as being in fair or poor financial condition at the time of the survey, with 85% claiming to have had financial challenges in the 12 months before. The whopping 85% share not only exhibits a nearly 20pp boost from 2019 results, but also a 4pp rise from 2020. Considering that 2020 was the first time many pandemic-related challenges were first introduced, it is hard to imagine that financially 2021 may have been even tougher for businesses.

A detailed dive suggests firms were less likely to seek financial assistance in the first place or receive sought-after aid compared to in 2020. The share of those demanding financing in 2021 was 36%, the lowest since the report began in 2016. What's more, those who did seek funding tended to do it in an effort to keep their head above water rather than for expansion plans, a stark reversal from the trend seen at the end of the prior business cycle. Only 41% of applicants indicated they needed money to explore future business opportunities, while 63% reported that they sought financing to meet operating expenses (see chart). This could present a future risk to firms as they may have to put some development plans on the back burner. However, if firms did seek a larger share of funds to repair and replace assets, it would imply a focus on maintaining pre-existing capital. The share of firms with debt outstanding fell 6pp to 74%, which is slightly above pre-pandemic levels. (Return to Summary)

Topic of the Week

Some Economic Implications of the War Between Russia and Ukraine

As is widely known, Russian forces have entered Ukraine and the situation on the ground appears to be very fluid. Parsing out the precise economic implications of the war is essentially impossible, but we lay out some data and scenarios in this report that we think are instructive when contemplating how the future may play out for different economies. For starters, Ukraine and Russia are relatively small economies. Nominal GDP in Ukraine totaled only $154 billion in 2019. Although the Russian economy is significantly larger at $1.7 trillion, it accounts for less than 2% of global GDP. Furthermore, U.S. exports to Ukraine and Russia total only $2 billion and $6 billion, respectively, which is more or less meaningless in terms of the $24 trillion American economy. The European Union has significantly more trade exposure to the two combatants, but EU exports to the two countries still total less than 1% of the bloc's GDP.

That said, the economic implications of the conflict between Russia and Ukraine go well beyond the relatively small sizes of their economies. Russian production of crude oil totals about 10 million barrels per day, which accounts for roughly 10% of global oil production. Russia is also a major supplier of natural gas to many countries in Western Europe. Brent Crude Oil and West Texas Intermediate prices rose on the news of the conflict. Natural gas prices in Europe also jumped.

While we are not necessarily forecasting that oil prices will remain well above recent averages, we use a macroeconometric model to analyze the potential economic implications of higher oil prices as a result of the recent hostilities. Assuming the price of Brent Crude Oil remains elevated (about $25 per barrel higher than its average price in Q4-2021) over the next two years, then U.S. real GDP growth will be 0.3% weaker in 2022 and 0.1% weaker in 2023 than otherwise. The rise in oil prices would raise the CPI inflation rate by a full percentage point in 2022, although the effect would essentially die out next year because oil prices would no longer be rising under this scenario. The core rate of inflation would be boosted by 0.3 percentage points this year, and the effect would linger into next year with a 0.2 percentage point increase in the core inflation rate relative to baseline.

The model does not explicitly contain economic variables for the European Union, so we use Germany as a proxy for the EU Similar to the United States, the oil price shock imparts a mild stagflationary effect on the German economy, with slightly slower GDP growth and modestly higher inflation. But we should note that the results of this scenario are likely conservative, especially as it relates to Germany (and the European Union, more broadly). That is, if natural gas prices remain elevated, then German inflation likely would turn out to be higher and German GDP growth weaker than implied by these results. Because natural gas does not really trade in a global market as oil does, prices of natural gas in the United States are not likely to rise to the same extent as they have in Europe.

Source: International Monetary Fund and Wells Fargo Economics

Energy prices are not the only financial market variable that has responded to the invasion. The conflict has brought heightened volatility to U.S. equity prices and stock markets in most European countries. To simulate the effects of lower equity prices, we reduced the S&P 500 index by 20% relative to baseline between Q1-2022 and the end of 2023. Under a scenario in which the S&P 500 falls 20% below its baseline value, and oil prices return to their baseline values, U.S. real GDP growth in 2022 would turn out to be 0.5 percentage points lower than otherwise. That is, we would trim our real GDP forecast from 3.4% to 2.9%, everything else equal, meaning this hypothetical decline in share prices would not be enough to send the U.S. economy into recession.

We combine both scenarios in our third simulation. That is, we raise oil prices by $25 per barrel and reduce equity prices by 20% between now and the end of 2023. As seems reasonable, the combination of higher oil prices and lower equity prices has a larger effect on U.S. real GDP growth than either of the scenarios in isolation. Specifically, higher oil prices and lower equity prices shave 0.7 percentage points off of real GDP growth in 2022 and 0.2 percentage points off of the growth rate next year. The overall rate of CPI inflation in the United States is also lifted by roughly one percentage point in

2022. Economic growth in Germany downshifts in 2022 and 2023, and the rate of German inflation is boosted by nearly one percentage point. But as noted previously, the stagflationary effects in Germany could be more meaningful if natural gas prices also remain elevated.

The results that were presented above are not meant to be definite forecast changes resulting from the beginning of hostilities between Russia and Ukraine. The war and the responses of the combatants and other parties (e.g., NATO countries) are likely to evolve in untold way in the coming weeks and months. In short, meaningful rises in oil prices and declines in equity prices would exert some headwinds on real GDP growth in the United States and Germany, which we use as a proxy for the European Union. But they would likely not be enough to send either economy into recession. (Return to Summary)

Market Data • Mid-Day Friday

U.S. Interest Rates

	Friday 2/25/2022	1 Week Ago	1 Year Ago
SOFR	0.05	0.05	0.02
3-Month LIBOR	0.50	0.49	0.19
3-Month T-Bill	0.30	0.32	0.03
1-Year Treasury	1.15	1.05	0.03
2-Year Treasury	1.60	1.47	0.17
5-Year Treasury	1.89	1.82	0.82
10-Year Treasury	1.99	1.93	1.52
30-Year Treasury	2.30	2.24	2.27
Bond Buyer Index	2.51	2.54	2.44

Foreign Exchange Rates

	Friday 2/25/2022	1 Week Ago	1 Year Ago
Euro ($/€)	1.125	1.132	1.218
British Pound ($/£)	1.339	1.359	1.402
British Pound (£/€)	0.840	0.833	0.869
Japanese Yen (¥/$)	115.540	115.010	106.210
Canadian Dollar (C$/$)	1.278	1.275	1.260
Swiss Franc (CHF/$)	0.927	0.922	0.905
Australian Dollar (US$/A$)	0.723	0.718	0.787
Mexican Peso (MXN/$)	20.441	20.292	20.853
Chinese Yuan (CNY/$)	6.315	6.326	6.455
Indian Rupee (INR/$)	75.293	74.663	72.426
Brazilian Real (BRL/$)	5.130	5.139	5.521
U.S. Dollar Index	96.810	95.800	90.134

Source: Bloomberg Finance L.P. and Wells Fargo Economics

Foreign Interest Rates

	Friday 2/25/2022	1 Week Ago	1 Year Ago
3-Month Euro LIBOR	-0.58	-0.59	-0.57
3-Month Sterling LIBOR	0.88	0.87	0.06
3-Month Canada Banker's Acceptance	0.93	0.88	0.44
3-Month Yen LIBOR	-0.02	-0.02	-0.08
2-Year German	-0.38	-0.48	-0.65
2-Year U.K.	1.20	1.27	0.11
2-Year Canadian	1.56	1.49	0.33
2-Year Japanese	-0.02	-0.02	-0.09
10-Year German	0.23	0.19	-0.23
10-Year U.K.	1.46	1.38	0.78
10-Year Canadian	1.94	1.88	1.46
10-Year Japanese	0.21	0.22	0.15

Commodity Prices

	Friday 2/25/2022	1 Week Ago	1 Year Ago
WTI Crude ($/Barrel)	92.00	91.76	63.53
Brent Crude ($/Barrel)	97.46	93.54	66.88
Gold ($/Ounce)	1890.66	1898.43	1770.56
Hot-Rolled Steel ($/S.Ton)	995.00	960.00	1260.00
Copper (¢/Pound)	447.30	452.30	426.60
Soybeans ($/Bushel)	16.46	15.87	14.26
Natural Gas ($/MMBTU)	4.52	4.49	2.78
Nickel ($/Metric Ton)	25,233	24,254	19,661
CRB Spot Inds.	653.11	646.45	562.84

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