

THE REAL ECONOMY

VOLUME 84

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LOOKING AHEAD TO THE 2022 ECONOMY

BY JOSEPH BRUSUELAS

NEARLY TWO YEARS into the pandemic, there are signs that the worst of a once-in-a-century shock to the global economy is beginning to fade.

As the economy approaches a full reopening, we expect that growth in 2022 will exceed 4%, the unemployment rate will fall to 3.5% and job growth will average roughly 230,000 per month.

All of this will happen as inflation slowly recedes from what we think will be a peak near 7% in 2021 to roughly 3% at the end of 2022, setting the stage for tighter monetary policy and a path back toward 2.5% growth in 2023.

While there is likely a wide range of possible outcomes linked to the omicron variant, we do not see a need to alter our growth forecast of 7.2% in the fourth quarter nor the rate for 2022.

The current risk matrix related to growth, employment, interest rates and monetary policy will not alter our expectation that the Federal Reserve will increase the pace of its tapering operations to \$30 billion per month, from \$15 billion, at its December meeting.

Other major wildcards in the forecast remain the direction of fiscal policy and the fate of the Biden administration's proposed Build Back Better social spending program, which was still being negotiated in November.

NEXT YEAR WILL BE ONE OF TRANSITION TOWARD A HYPERCOMPETITIVE ECONOMY THAT FEATURES TIGHTER MONETARY POLICY AND IMPROVING CAPITAL EXPENDITURES THAT WILL SUPPORT RISING PRODUCTIVITY.

MIDDLE MARKET INSIGHT

As the economy approaches a full reopening, we expect that growth in 2022 will exceed 4%, the unemployment rate will fall to 3.5% and job growth will average roughly 230,000 per month.

Accommodative monetary policy and robust fiscal support, which blunted the downturn and continue to bolster growth, are likely to fade in 2022.

The current bout of inflation around the world poses another major risk to growth, and central banks are setting the stage to end their support in 2022. We expect that the nexus around growth, employment, inflation and policy will revolve around central bank policy actions in 2022.

Let us be clear: We do not think this is a time to become complacent about the pandemic, vaccinations, boosters and public health risks linked to COVID-19. Rather, we think the economy is transitioning from being at the mercy of a pandemic to one that is learning to live with an endemic—a disease that remains but can be managed. This next phase does not represent an outsized risk to overall economic activity. Should we be wrong on the evolution of the virus, it would result in a slower and more uneven pace of growth next year.

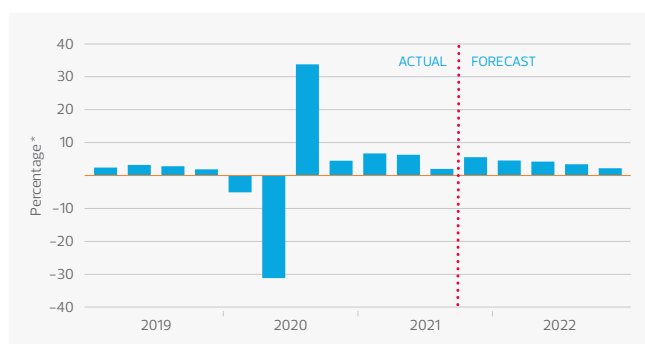
We think next year will be one of transition toward a hypercompetitive economy that features tighter monetary policy and improving capital expenditures that will support rising productivity and a transformation of the American workforce to one characterized by higher wages, flexibility and the rise of millennials into management.

Base case and the U.S. economy

Our fundamental base case is that the American economy will expand near 4.2% on the year with risks of a slower pace of growth if shocks to the global supply chain persist and inflation proves stickier with rising rents pushing up costs.

These risks to what is an otherwise optimistic outlook could be compounded if the Federal Reserve misses the mark on the pace of its tapering operations and the start of the inevitable rate-hike campaign that we anticipate will take place December 2022.

Pandemic-era U.S. GDP



Source: Bloomberg; RSM US LLP

*Seasonally annual adjusted rate

Growth will be fueled by the release of pent-up demand among households, which are flush with more than \$2.5 trillion in excess cash, and by fixed business investment, which continues to soar late into the pandemic. Unless the Build Back Better proposal is passed and signed into law, the fiscal support that propped up the economy during the pandemic will continue to fade.

We expect that tighter monetary policy and fading fiscal boost will result in growth decelerating to 2.5% in 2023.

One of the more interesting aspects of government transfers, wage subsidies and other policies aimed at supporting households during the pandemic is the change in the composition of household savings.

According to Bloomberg Economics, roughly three-quarters of the close to \$2.6 trillion in excess savings built up during the pandemic are concentrated in households other than the top income quintile—a striking change from past business cycles.

OUR FUNDAMENTAL BASE CASE IS THAT THE AMERICAN ECONOMY WILL EXPAND NEAR 4.2% DURING THE YEAR WITH RISKS OF A SLOWER PACE OF GROWTH IF SHOCKS TO THE GLOBAL SUPPLY CHAIN PERSIST AND INFLATION PROVES STICKIER.

MIDDLE MARKET INSIGHT

We expect that tighter monetary policy and fading fiscal boost will result in growth decelerating to 2.5% in 2023.

That implies the median household has sufficient cash to absorb higher prices—however sour that might be—and it will support a pace of household consumption near 3.5% in 2022 with upside risk, should inflation fade faster than we anticipate.

Finally, private investment should moderate from what we expect will be a torrid 8% pace in 2021 to a still hot 4.2% in 2022. Not only will productivity-enhancing fixed business investment continue to soar, but we expect that demand for housing will exceed 1.6 million at an annualized pace during the year.

Inflation: A major risk

While most economists expected inflation to climb well above target because of base-year effects, or comparisons to the low levels of a year ago, in energy, transportation and lodging, few predicted [a move well above 6% in the consumer price index](#) and near 4% in the Fed's core policy variable.

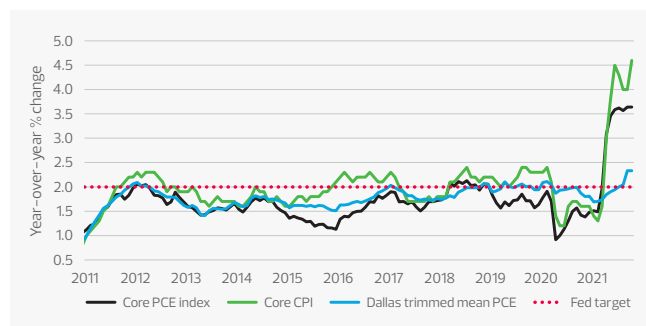
Yet that is exactly what has happened, resulting in inflation becoming the major risk—outside of a resurgence in the pandemic—to the economic outlook for the first time in three decades. And this is why U.S. central bankers may accelerate the pace of tapering operations and pull the first rate hike into the latter part of 2022.

Rising inflation has primarily been the result of stressed supply chains and surging consumer demand, and not because of rising wages.

Roughly 62% of the factors driving inflation higher is clustered in about 30% of the consumer price index. The idea that much of what is driving inflation will ease in early 2022, especially during the March to June period, remains our core base case.

We see the top-line CPI easing back toward 3% near the end of the year and the central bank's policy variable ending the year at 2.5%, both with risk of more elevated rates of inflation.

Core inflation metrics



Source: BLS; Dallas Fed; Bloomberg; RSM US LLP

The first half of the year will almost certainly feature stubborn inflation, and its decline will depend on the evolution of the pandemic, the return to work of the labor force around the world and an easing of supply chain bottlenecks. But a tightening labor market may result in a pivot in rising wages, driving up business costs and prices. This dynamic is why we anticipate the Fed's policy variable, the year-over-year [core personal consumption expenditures price index](#), will increase by 2.5% in 2022.

While we are growing more optimistic about improved industrial production in the North American economic bloc in general and in automobile production in particular, it is premature to call a bottom in the global supply chain crisis or to ignore top-line inflation data. Stress is still quite evident inside our proprietary [RSM US Supply Chain Index](#).

WE SEE THE TOP-LINE CONSUMER PRICE INDEX EASING BACK TOWARD 3% NEAR THE END OF 2022.

Labor: A return to full employment

The U.S. economy is experiencing something of a revolution in the workplace accelerated by the pandemic. A broad array of demands by labor, including higher wages and more flexibility, has resulted in the [transformation of the American workforce](#). We expect those changes to accelerate in 2022 amid a tight labor market and a return to full employment.

Even after months of recovery, the domestic labor market in November was short roughly 4.6 million workers compared to pre-pandemic levels. Through the first 10 months of the year, the economy generated roughly 5.81 million jobs or an average of 582,000 per month. We expect that torrid pace to slow to a much more sustainable 230,000 per month or roughly 2.76 million on the year.

That suggests that the [4.6% unemployment rate in October](#) will fall to near 3.5% by the end of 2022. But the risk of the economy running hot accompanied by rising wages will weigh heavily on policymakers at the Fed in 2022.

The Fed and fiscal policy

The major policy shift of 2022 will be the Fed's withdrawal of monetary accommodations during the first half of the year and then what we expect will be a rate hike campaign starting in June with the chance of a quicker start in March.

We expect the policy rate to float between 50 and 75 basis points at the end of 2022 with the possibility of a slightly higher rate should the Fed turn hawkish in the face of stubborn inflation. Under our alternative scenario, the Fed would hike rates three times in 2022, lifting the policy rate to a range of 75 basis points and 1%.

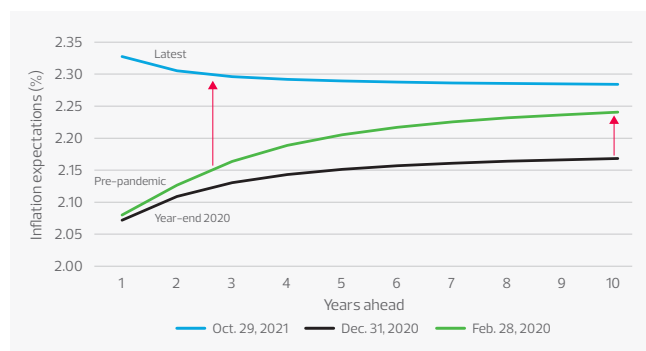
Given the fact that we think inflation may peak near 7% this year, the Fed may choose to accelerate the pace of its tapering operations, which in November was set

at \$15 billion per month, with a target of March 2022 to wrap up operations. We expect this to be announced at the Fed's December meeting.

The year ahead will mark an unusual event: The Fed hikes rates before the midterm elections in November and it may map out alternatives like changing its balance sheet policy—letting the balance sheet begin to naturally decline—which would certainly dampen inflation expectations.

Fiscal policy and our economic outlook for 2022 are inextricably linked to the Biden administration's Build Back Better social spending plan. We do not assume that this legislation will become law, but if it does in the closing days of 2021 or early 2022, then we will have to upgrade our growth forecast and adjust our rate expectations.

Inflation expectations during the recovery from the pandemic*



Source: Federal Reserve Bank of Philadelphia; RSM US LLP

*Aruba term structure of inflation expectations (ATSIX) for 1-10 years ahead as of February 2020, December 2020 and October 2021

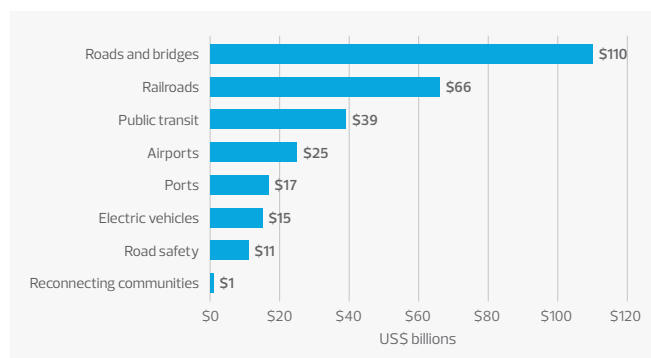
For now, the only real fiscal boost that the economy will receive in 2022 will be through the \$1.2 trillion infrastructure package. That initiative, though, is not front-loaded with spending with only about \$16 billion coming in 2022.

THE RISK OF THE ECONOMY RUNNING HOT ACCOMPANIED BY RISING WAGES WILL WEIGH HEAVILY ON POLICYMAKERS AT THE FED IN 2022.

But the design of the legislation, which was crafted to support an increase in productivity and growth, will likely do exactly that over the decadelong window in which it will be in effect.

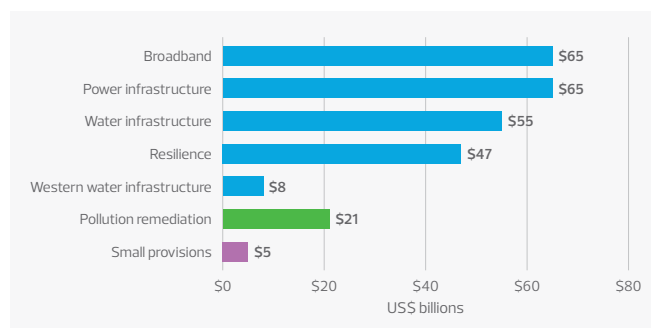
Academic work conducted over the past three decades implies that for each 10% increase in infrastructure investment, national output grew by 0.8% in the near term and by 1.2% over the long term, with almost all of that growth occurring through the productivity channel.

Infrastructure spending on transportation



Source: Washington Post; RSM US LLP

Infrastructure spending on utilities, pollution remediation, and small provisions



Source: Washington Post; RSM US LLP

Similar scholarly work implies that a 1% increase in public capital investment in hard infrastructure results in a 0.24% increase in productivity. With real yields

still negative, once one accounts for state and local government-sponsored infrastructure investment, the economy should experience roughly \$2.2 trillion in total infrastructure investment over the next decade.

We think there is the possibility of improved growth and productivity compared to baseline studies that occurred during a very different economic and rate environment.

U.S. rate outlook

We expect that the yield on the 10-year U.S. government security will finish 2021 near 1.8% and is likely to arrive at 2.25% at the close of 2022.

The increase in long-term rates, while low by historical standards and negative on an inflation-adjusted basis, will rise because of the shift in monetary policy and robust economic growth in 2022.

A look at market-based forwards in a year implies a modestly steeper yield curve with the front end anchored by the federal funds rate at or between 0.25 and 0.50 basis points, with the 10-year yield sitting at 1.84%. Our expectation of a 2.25% rate to end 2022 is somewhat bearish for bonds and bullish on the economy.

Given that we do not anticipate the Fed's core policy variable, the personal consumption expenditures deflator, to return to the Fed's 2% inflation target until 2023, we think that forward markets are moderately mispriced given the risks around inflation.

Currently, the [RSM US Financial Conditions Index](#) stands more than one standard deviation above neutral, which implies that sentiment remains skewed toward risk assets as bond prices fall and yields rise.

The takeaway

The American economy next year will be a story of transition: from an economy adapting to the shock of the pandemic to one characterized by tighter monetary policy, less fiscal support, robust growth and a hyper-competitive landscape for businesses. ■



RSM US FINANCIAL CONDITIONS INDEX: SETTING THE STAGE FOR SUSTAINED GROWTH

BY JOSEPH BRUSUELAS

MANUFACTURERS ARE expecting increased activity in the coming months, surveys by the regional Federal Reserve banks suggest. But perhaps more important in terms of productivity and global competitiveness, those manufacturers say they plan to increase capital expenditures and spending on technology.

Those investments and the strong outlook on the economy [will help push growth above 4% next year](#). But the emergence of the omicron variant of the coronavirus could pose a threat to that outlook.

The strength in manufacturing builds on [the continued recovery](#) from the depths of the pandemic, when real capital expenditures declined by roughly 11%. Now, American businesses have a greater appetite for risk, and their willingness to invest in improved productivity underscores our expectations that real nonresidential fixed investment will advance by 5% next year.

This accommodative climate for investment is a byproduct of the evolution of monetary policy over the past half-century and is a direct result of confidence in the monetary authorities and their efforts to maintain stability in the financial markets, despite the recent uptick in inflation.

MIDDLE MARKET INSIGHT

The RSM US Financial Conditions Index indicates a level of accommodation that shows the economy is poised for sustained growth.

Because of the quick monetary response by central banks after the financial market collapsed in 2008 and 2020, the economies of the world did not fall into depression (as was the case in the 1930s).

Instead, commerce was able to resume. And in an environment of low interest rates, the cost of rebuilding has been drastically reduced, while confidence in the monetary authorities' commitment to stable financial conditions has increased the private sector's propensity to borrow and lend.

This can be seen in the RSM US Financial Conditions Index, which is a composite measure of the degree of risk (or accommodation) priced into financial assets in the money, bond and equity markets.

AMERICAN BUSINESSES HAVE A GREATER APPETITE FOR RISK, AND THEIR WILLINGNESS TO INVEST IN IMPROVED PRODUCTIVITY UNDERSCORES OUR EXPECTATIONS THAT REAL NONRESIDENTIAL FIXED INVESTMENT WILL ADVANCE BY 5% NEXT YEAR.

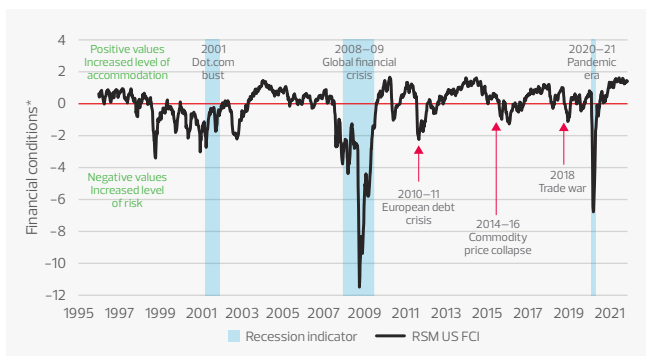
MIDDLE MARKET INSIGHT

Money market spreads widened slightly during October and November as investors weighed the perceived threats of runaway inflation and a government default on its debt.

In its current reading, the index indicates a level of accommodation that is more than 1.4 standard deviations above normal.

By comparison, the index was six standard deviations below normal at the height of the pandemic shutdown—a highly abnormal level of risk priced into financial assets.

RSM US Financial Conditions Index



Source: Bloomberg; RSM US LLP calculations

*Z-score

Central bankers now accept that monetary policy is transmitted to the economy through financial conditions. For that reason, their missions now include a commitment to maintaining a stable and accommodative investment climate in addition to their traditional roles of price stability and full employment.

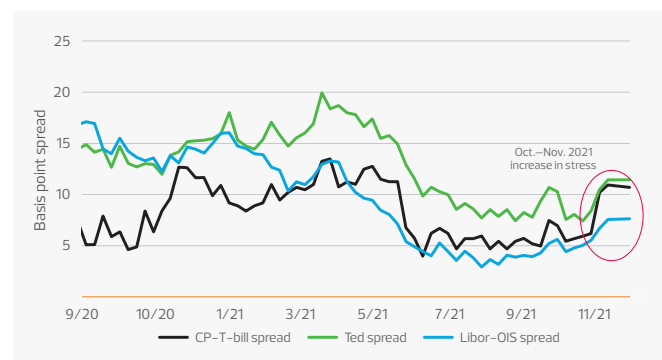
In the sections that follow, we'll look at recent developments in the major asset markets.

Money markets

Money market spreads widened slightly during October and November as investors weighed the perceived threats of runaway inflation and a government default on its debt.

This slight widening comes after the freeze-up of commercial lending at the depths of the pandemic that was followed by an 18-month decline in the spread between interest rates of short-term commercial debt and risk-free government securities.

U.S. money market spreads during 2020-21 recovery



Source: Bloomberg; RSM US LLP calculations

Is this uptick a sign of impending distress in commercial lending activity? Probably not, but it is, nevertheless, a symptom of stress in an economy still reeling from the pandemic.

First, money market spreads remain below normal levels of risk, and it is likely that the Federal Reserve would quickly respond to a reckless increase in money market rates just as it did during the initial stages of the pandemic. In addition, the monetary authorities have already anticipated possible distortions that might affect the money markets.

WITH VOLATILITY CONTINUING TO DECLINE, THE STOCK MARKET HAS BECOME A VIRTUAL GIFT FOR INVESTORS SEARCHING FOR YIELD.

MIDDLE MARKET INSIGHT

The safe-haven demand for U.S. securities should continue to dampen the increase in Treasury yields once the Fed begins normalizing interest rates.

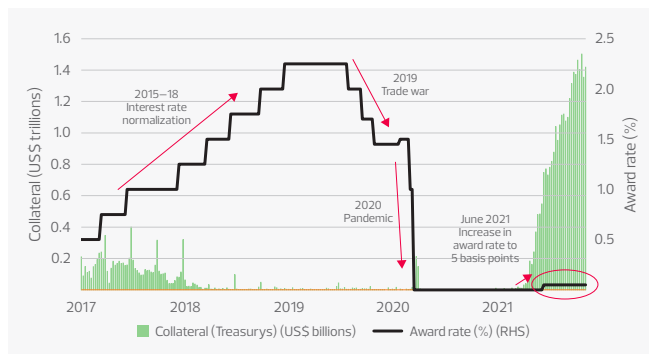
For instance, the circumstances of government income support and the lack of investment alternatives have resulted in an excess of cash sloshing around the financial markets.

Start with the \$1.3 trillion of household savings, much of it precautionary and \$5.5 trillion of Treasury securities now on the Federal Reserve's balance sheet. That money needs to be parked somewhere safe.

After the financial crisis, the Federal Reserve presciently created a facility to mop up all that cash each night, using Treasury securities as collateral and now paying an "award fee" of a mere 5 basis points (0.05%) to hold that debt.

By the second half of November, the Fed's repo and reverse repo operations reached upward of \$1.5 trillion, indicating increased demand even at near-zero rates of return.

U.S. Federal Reserve repo and reverse repo operations and award rate



Source: U.S. Federal Reserve; Bloomberg; RSM US LLP

Equity markets

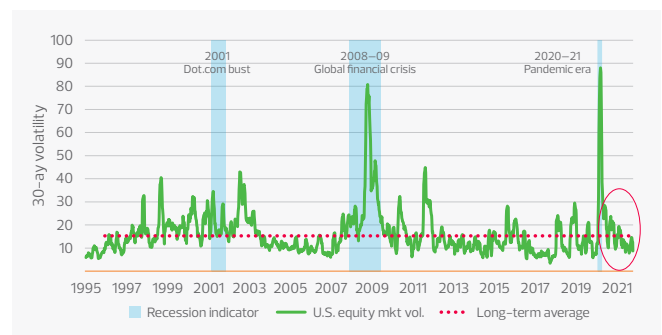
A buy-and-hold strategy on the S&P 500 equity index would have returned 32% for the year ending late November. And with volatility continuing to decline, the stock market has become a virtual gift for investors searching for yield.

And retail investors, lured by commission-free trading, have followed. [A recent paper](#) by the economists Zhi Da, Vivian W. Fang and Wenwei Lin found an increase in at-home trading during the pandemic that was abetted by stimulus checks.

And there have been other innovations, beyond the elimination of fees. Fractional trading now allows retail investors to buy a slice of a share with as little as a penny, eliminating barriers to high-priced stocks.

But this all comes at a price. With interest rates at low levels for such a long time, the guaranteed 5% return on fixed-income investments has gone the way of the hula hoop. So investors pour more money into equities and run the risk of being overexposed when the next crisis arrives.

U.S. equity market volatility during recessions and recoveries*



Source: Bloomberg; RSM US LLP calculations

*30-day volatility of the S&P 500

SPREADS IN THE CORPORATE BOND MARKET HAVE CONTINUED TO FALL SINCE THE HEIGHT OF THE PANDEMIC, SIGNALING REDUCED PERCEPTIONS OF THE RISK OF CORPORATE DEFAULT.

But until that happens, the increased return and low volatility of the equity markets have helped swell the balance sheets in many households, and as a result, account for a substantial share of financial accommodations.

Bond markets

Because the threat of runaway inflation had been taken off the table in the developed economies for so long, interest rates became compressed with a notable reduction in volatility during the 2010–19 recovery.

This would argue for the increased attractiveness and safety of investments in Treasury bonds. One theme in the bond market in the year ahead is that central banks' credibility could become eroded even if top-line inflation falls toward our end-of-year 3% forecast.

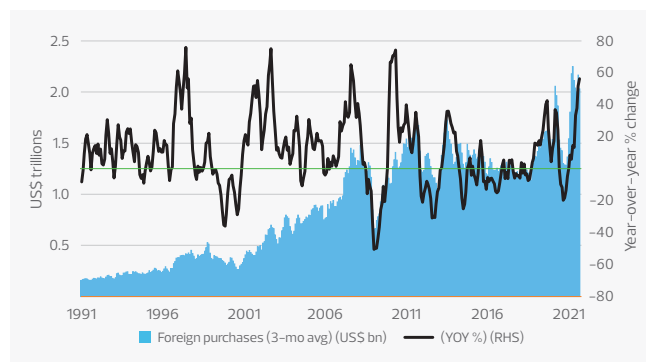
While domestic investors might find the equity markets to be more profitable, our trading partners are parking U.S. transactions in Treasurys. Liquidity is guaranteed, and the economy's strength should minimize currency risk and add to securities' total return for foreign investors.

The growth of foreign holdings of Treasury bonds since 2001 serves both as a measure of the globalization of the U.S. supply chain and the attractiveness of holding those bonds.

All in all, the safe-haven demand for U.S. securities should continue to dampen the increase in Treasury yields once the Fed begins normalizing interest rates.

And if the 2010–19 recovery provides the template for this cycle, we can expect the Fed to maintain its balance sheet holdings of securities and then allow for gradual attrition of those holdings as they reach maturity, with the limited supply of bonds applying downward pressure on yield levels at the margins.

Foreign purchases of U.S. Treasurys



Source: U.S. Treasury; Bloomberg; RSM US LLP

Domestically, spreads in the corporate bond market have continued to fall since the height of the pandemic, signaling reduced perceptions of the risk of corporate default within a strengthening economy.

We would expect Treasury yields to increase all along the curve as the market anticipates the Fed allowing short-term rates to move higher and while sustained economic growth supports higher rates of return on longer-term bonds. In the end, that supports our year-end call for the U.S. 10-year Treasury yield to rise to 2.25%. ■

INTRODUCING THE RSM US SUPPLY CHAIN INDEX: SUSTAINED GROWTH DEPENDS ON RETOOLING

BY JOSEPH BRUSUELAS AND TUAN NGUYEN



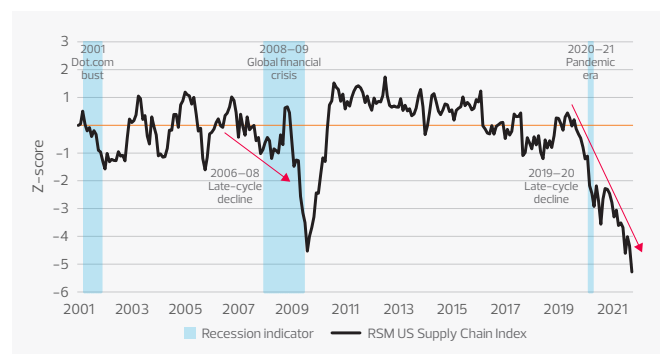
THE INFRASTRUCTURE that supports the domestic and global economies has experienced a significant stress test over the past few years. The twin policy shocks caused by the 2017–20 trade war and the decision to effectively shut down elements of the global economy during the pandemic have resulted in an effective simulation of what deglobalization looks like.

To capture this shift, we have created the RSM US Supply Chain Index, which provides a near real-time and forward look of the elements of transportation, manufacturing, sales and labor that underscore the manufacturing and service sectors.

Using a linear regression model, we found that our index is statistically correlated at a 99% confidence level with multiple major inflation indicators: The [consumer price index](#), core CPI, [personal consumption expenditures](#) and

core PCE. The result is a confirmation that supply chain disruptions are largely behind the recent surge in inflation.

RSM US Supply Chain Index



Source: Bloomberg; RSM US LLP calculations

THE INDEX PROVIDES A NEAR REAL-TIME AND FORWARD LOOK OF THE ELEMENTS OF TRANSPORTATION, MANUFACTURING, SALES AND LABOR THAT UNDERSCORE THE MANUFACTURING AND SERVICE SECTORS.

Our composite index incorporates different measurements of the economy:

- **Delivery times, prices paid and inventories** in the manufacturing and services sectors
- **Inventories held** by retailers, wholesalers and manufacturers
- **The inventory-to-sales ratio**
- **Intermodal freight traffic**, which measures freight moved in trailers and containers after they are unloaded from the ships
- **The job openings-to-vacancies ratio**

An index value of zero is defined as a normal, nonrecessionary level of supply chain efficiency. Positive values of the index suggest adequate levels of supply chain efficiency; negative levels suggest deficiencies.

We expect to update the index to capture the changing dynamics of the economy as it emerges from the pandemic and the changing risks associated with the nascent omicron variant of the coronavirus.

[Disruptions to global and domestic supply chains](#) have resulted in reduced availability and choice for producers and consumers, and those disruptions are the primary catalyst for rising prices not only in the United States, but also across the world.

The bottlenecks are about more than ships waiting to be unloaded at the Southern California seaports. The shock to the system began with the trade war in 2017 and then accelerated during the pandemic. If anything, it has exposed how the aging condition of the U.S. supply chain, which has been deteriorating for years, has profoundly hampered the U.S. economy.

Fixing the supply chains

While fixing the supply chains will require spending on railroads, roads and bridges included in the infrastructure package, it also points to the need for realistic trade policies.

Let's begin with the initial problem of an economy that was slowing before the 2020 pandemic shutdown. Already, [the global manufacturing sector was in recession](#) because of the trade war, with delivery times and prices paid increasing, as reported by the ISM survey of manufacturers.

MIDDLE MARKET INSIGHT

Disruptions to global and domestic supply chains have resulted in reduced availability and choice for producers and consumers, and those disruptions are the primary catalyst for rising prices.

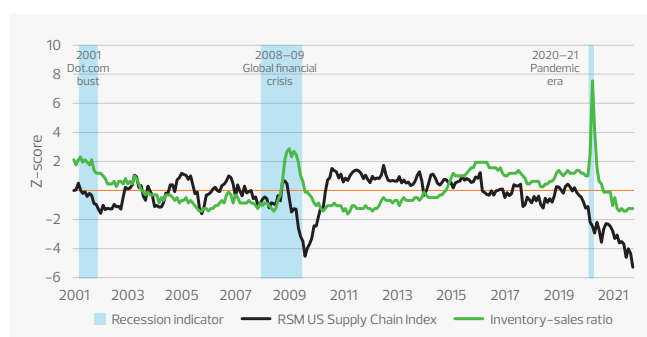
This implied a dwindling inventory of intermediate goods in an economy already in the latter stages of a business cycle and then hobbled by a trade war. Our supply chain index peaked in early 2019 and began its descent into the pandemic.

And though it could be argued that the 2019 decrease in the inventory-to-sales ratio was more a function of the ability of the supply chain to facilitate just-in-time ordering than it was the inability to acquire adequate inventories, that declining trend reemerged in the months after the initial shock of the pandemic.

But while the composite index has remained underwater ever since, the source of the problems has changed. The inability to restock inventories for some goods is now because of production disruptions among U.S. trading partners still suffering from COVID-19 outbreaks. This comes on top of a supply chain infrastructure ill-equipped to handle a once-in-a-century surge in demand.

While the inventory-to-sales ratio exploded during the 2020 economic shutdown as consumers suddenly stopped buying and production came to a halt, that shock was over by November 2020.

RSM US Supply Chain Index and inventory-to-sales ratio*



Source: U.S. Census; Bloomberg; RSM US LLP calculations

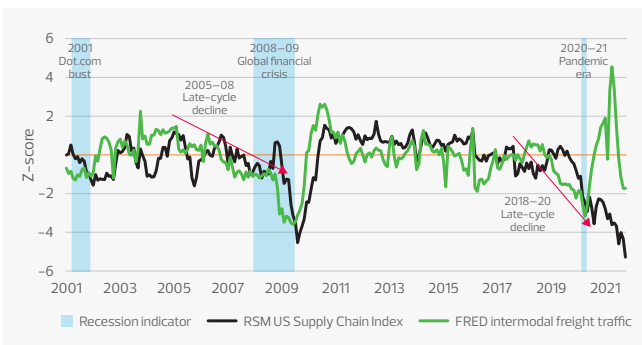
*Standardized values

THE BOTTLENECKS HAVE EXPOSED HOW THE AGING CONDITION OF THE U.S. SUPPLY CHAIN, WHICH HAS BEEN DETERIORATING FOR YEARS, HAS PROFOUNDLY HAMPERED THE U.S. ECONOMY.

The presence of ships waiting in San Pedro Bay might lead to the conclusion that production stoppages among U.S. suppliers in Asia are not so much the overriding issue as are the problems of moving the freight once it hits the ground.

There are reports of [capacity limits](#) on the rail lines, a shortage of warehouses near the Los Angeles ports and shortages of truck drivers to move the goods across the country.

RSM US Supply Chain Index and intermodal freight traffic



The limits of public policy

Can public policy play a role in fixing supply chain problems? Will the disruptions unwind once the public finishes its pre-holiday shopping spree? Or has the pandemic uncovered yet another flaw in the way the economy works?

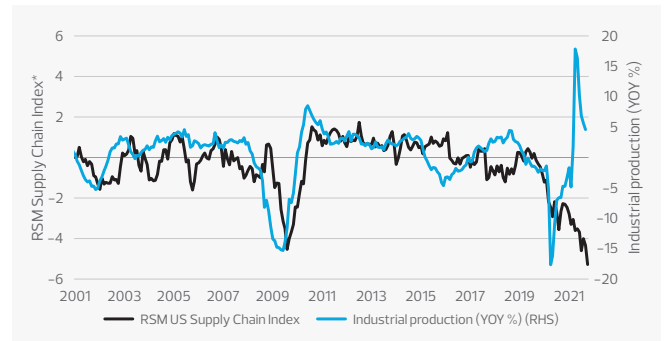
We would argue a little bit of the former and a lot of the latter.

Short of enlisting the logistics capabilities of the military or wage incentives, there are limits to government policies that might quickly increase the number of truck drivers or increase warehouse and train-yard capacity.

We expect the supply chain to continue to be a drag on economic growth and for prices to continue to remain elevated until the supply chain bottlenecks are overcome.

While there was a surge in industrial production, it was driven, in part, by the ebbs and flows of the pandemic, as well as by the robust fiscal and monetary policies. We are now in a different situation where supply shortages have begun to limit growth and industrial production is easing.

RSM US Supply Chain Index and industrial production



Lessons learned

Still, there are three lessons that we can take away from this crisis.

- **Public investment in infrastructure has been shortsighted for at least 40 years.** The \$1.2 trillion infrastructure package recently passed by Congress will in part remedy that.
- **Our mass transportation system is a relic of another time.** Our roads and bridges are scary and costly for the consumer. Our public utilities are underfunded and chronically unreliable. Our water system is unhealthy and costly. These problems will require an increased commitment to the modernization of the economy.
- **Public policy needs to spur investment in the health and education of the labor force and in research.** Initiatives like these can kick-start the next productivity boom, and are necessary for the United States to compete with the rest of the world.

The takeaway

The failings of the supply chain are just the start of the nation's economic challenges. It's understandable that the public has forgotten that much of our infrastructure was created 75 years ago, or that the national highway system was a bunch of two-lane back roads until the Eisenhower era. But those failings need to be resolved immediately. ■



INTERNATIONAL TRADE IN 2022: GLOBAL SUPPLY CHAIN CHALLENGES AND POLICY IMPLICATIONS

BY TUAN NGUYEN

NEARLY TWO YEARS after the pandemic shut down the global economy, policymakers are facing a new challenge as global supply chain bottlenecks push up inflation and hamper economic growth. How countries confront these disruptions will have a big impact on economic growth in the coming year.

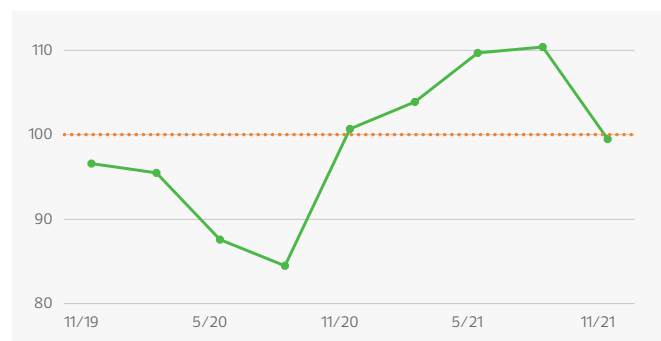
We expect that 2022 will be a year of major policy shifts in the United States toward more open policies that will aim to ease domestic inflationary pressures by unclogging the global supply chain logjams and, at the same time, fixing the remaining tariff hurdles from the 2018 U.S.–China trade war.

With the infrastructure bill signed into law and the Build Back Better plan gaining new life in Congress, the government can focus on policies that foster partnerships with key allies on trade and make global supply chains more resilient.

If pandemic eases in 2022—an open question with the recent emergence of the omicron variant of the coronavirus—we believe that global trade will reach

above its pre-pandemic trend as supply chain woes fade. The most recent indicator for global trade in the fourth quarter of 2021 from the World Trade Organization pointed to a level that is slightly below the long-term trend, even after a sharp drop from the previous quarter because of the delta variant's spread.

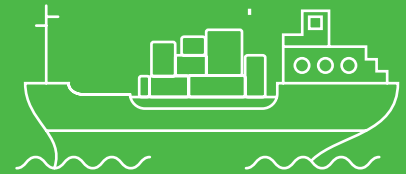
WTO goods trade barometer*



Source: WTO; RSM US LLP

*Index above 100 indicates above trend while below 100 indicates below trend

DEVELOPING NEW INTERNATIONAL TRADE AGREEMENTS AND RENEGOTIATING EXISTING ONES ON A LARGER SCALE WILL HELP REDUCE U.S. DEPENDENCY ON A SINGLE COUNTRY OR A SMALL GROUP OF COUNTRIES FOR CERTAIN PRODUCTS.



MIDDLE MARKET INSIGHT

If pandemic eases in 2022—an open question—we believe that global trade will reach above its pre-pandemic trend as supply chain woes fade.

The economic reopening in many parts of the world and a rejuvenated global trade system will help the global economy maintain an elevated growth level at around 4.5%. Still, that is quite a big if, especially given the recent lockdown in Austria and the emergence of the omicron variant, which might lead to further restrictions.

On the flip side, those international uncertainties only highlight the competitive edge that the United States has had because of its access to quality vaccines and its sharp economic rebound. We believe there will be more opportunities than challenges regarding global trade for the United States in 2022.

Rebuilding global supply linkages

It was not until the pandemic that American businesses' heavy reliance on foreign suppliers was exposed. In effect, the recent disruption is a grander version of the problem that the U.S.–China trade war created in 2018.

Looking at the [RSM US Supply Chain Index](#), we can see the negative impact of the trade war on supply efficiency, dragging the index to one standard deviation below neutral for all of 2018. Once the pandemic hit, the index dropped to its lowest level in two decades of 5.3 standard deviations below neutral.

Despite the difference between the trade war and the pandemic, there is one common denominator: the existence of trade barriers. In the case of the trade war, those barriers are tariffs, and in the case of the pandemic, the barriers are closed borders and restricted travel.

To deal with supply chain bottlenecks, the Biden administration has sought to foster a system that prioritizes domestic production of key products like semiconductors, clean energy products and personal protective equipment.

While it is well within reason to invest in those industries that have major national security implications, it should not be at all costs. There is a fine line between developing a strong domestic production backbone for such products and spending too much on inefficient and costly subsidies.

Competition through globalization was a big reason that prices came down in the last expansionary phase after the financial crisis. It would be another major risk to inflation if global trade continues to be viewed through a negative lens.

The government should walk the line with a more hybrid approach that can diversify the risks from both policy paths to maintain the right amount of domestic capacity while strengthening trade routes with not only its closest allies, but also countries that are willing to cooperate for the common goals.

Developing new international trade agreements and renegotiating existing ones on a larger scale will help reduce U.S. dependency on a single country or a small group of countries for certain products.

THE SINGLE GREATEST RISK TO GLOBAL TRADE
IN 2022 WILL CONTINUE TO BE POTENTIAL
COVID-19 SURGES AROUND THE WORLD.



MIDDLE MARKET INSIGHT

The economic reopening in many parts of the world and a rejuvenated global trade system will help the global economy maintain an elevated growth level at around 4.5%.

Of course, it is impossible for the government to deliberately force multinational corporations like Intel, Nike or Tesla to put their factories in a designated country or move back to the United States. But with effective trade agreements, the government can offer plenty of incentives for corporations to move to a more strategic location, without sacrificing the competitive advantages that country can offer like low labor costs or key resource availability.

On the other hand, the single greatest risk to global trade in 2022 will continue to be potential COVID-19 surges around the world. The United States should consider broadening the distribution of vaccines to major trading partners, and then extend that availability to the rest of the world.

Already, the United States has donated millions of vaccine doses to countries in the supply chain that have been hit hardest by the virus.

In the end, the donations can be an effective diplomacy tool. Access to billions of quality vaccine doses and potential COVID-19 pills will help other countries reduce the economic harm of the coronavirus, and in turn can help foster better relations, in trade and otherwise, with the United States. Not doing so would possibly invite other countries to enter a void through vaccine diplomacy.

The China factor

Even with the severe shock of the pandemic, the trade war between the United States and China has still not been resolved. Little has been done since President Biden took office in January. It all comes at a cost because tariffs lead to higher prices for imported goods, which puts more pressure on inflation.

Both Treasury Secretary Janet Yellen [in a recent interview](#) and business leaders [in a letter to Biden](#) acknowledge that easing trade tensions could help the current historically high inflation.

Unwinding such tensions while holding China accountable for fair trade standards will be a difficult but important policy point to look for in 2022 when the global economy is back online.

China's economic performance will also have major implications on the U.S. trade deficit with China—the third-largest export destination for U.S. goods.

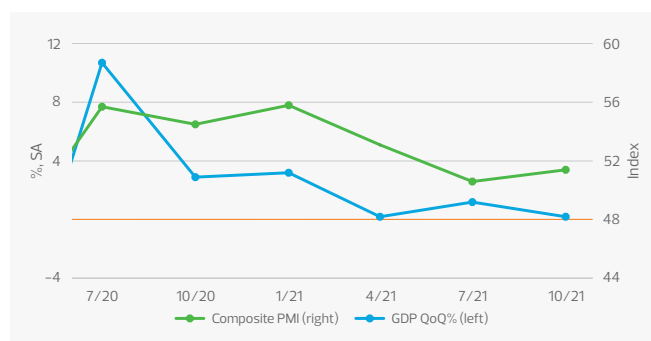
With the recent economic slowdown in China that might last well into the first half of 2022, there is an upside risk to the U.S. trade deficit that could put a dent in the U.S. economic growth.

A potential domestic economic fallout from [the debt saga of Evergrande](#), the Chinese developer, will be another risk to China's growth and production that will have a ripple effect on the world's economy in 2022, as China remains the manufacturing center of the world.

THE UNCERTAINTY AROUND THE POLITICAL LANDSCAPE IN 2022, AN ELECTION YEAR IN THE UNITED STATES, WILL POSE SUBSTANTIAL CHALLENGES TO TRADE POLICIES THAT FAVOR GLOBALIZATION.



China quarterly GDP growth and composite PMI during the pandemic



Source: Markit, National Bureau of Statistics of China, RSM US LLP

Navigating global trade in 2022

The uncertainty around the political landscape in 2022, an election year in the United States, will pose substantial challenges to trade policies that favor globalization. But if there is a lesson to be learned from the pandemic regarding trade, it must be about what deglobalization, simulated in real time by the pandemic, can mean to the U.S. economy.

Instead of retreating from globalization, the United States should capitalize on its leadership role to develop a more resilient global supply chain so that it can transfer the benefits from globalization to American citizens.

To do that, one proposed solution is the global minimum tax to crack down on multinational corporations that relocate to countries with favorable tax rates.

MIDDLE MARKET INSIGHT

Even with the severe shock of the pandemic, the trade war between the United States and China has still not been resolved.

While the proposed 15% minimum tax on corporations [gained the endorsement of G-20 leaders](#), it is still a long way from becoming reality. But if it is eventually approved, it will pose new opportunities and challenges for U.S. businesses to compete and benefit from a more level playing field.

Businesses should also lessen their exposure to global trade risks by diversifying their international sources while considering the potential impact of economic shocks.

The takeaway

A supply chain system that cannot survive under the extreme pressures of economic shocks will be reassessed both on a governmental level and on a business level. It won't be a surprise if the term "supply chain stress test"—which has quite a long history—will be more in the conversation in the post-pandemic world. ■



THE ALTERNATIVE

ALTERNATIVE ANALYSIS FOR INFORMED MIDDLE MARKET DECISION-MAKING

DESPITE ZILLOW SETBACK, iBUYERS SHOW PROMISE

BY CRYSTAL SUNBURY, NELLY MONTOYA AND MIKE COURTNEY

ZILLOW'S DECISION to [pull the plug on Zillow Offers](#), its tech-powered business of buying and selling homes, came as a surprise amid [the still-hot housing market](#) and prompted a question: Is the business model flawed?

As the third-quarter earnings reports from two of Zillow's competitors showed, it's too early to write off the business model.

Zillow Offers was one of a [new breed of real estate fintech companies](#) known as iBuyers. At its core, the business model is simple—buy a property, fix it and sell it—and it has been around as long as there has been property to sell.

Now, iBuyers have brought the deep pockets of institutional investors and high-powered algorithms to the equation, figuring they can build a national scale out of what has traditionally been a highly local business.

But when algorithms use flawed data or are not refined correctly, things can quickly go wrong. Zillow Offers is an example of this. When Zillow began, its main offering was

listing properties. Those properties listed homes at values derived from algorithms that were then compared against actual real estate transactions and vetted by real estate experts. But this process was time-consuming and costly; Zillow decided to minimize the vetting of the prices to expedite the process.

Algorithms are only as good as the data they use. Zillow's home valuations, known as Zestimates, were relatively accurate in some markets or when properties were already listed for sale. But when Zillow entered new markets or listed an off-market property, that proved to be problematic.

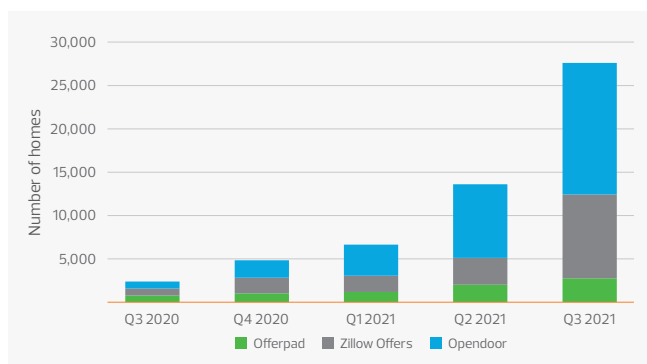
Those flaws in the algorithms, plus the rapid appreciation in home prices coupled with shortages of workers and materials to repair the homes, proved too much for Zillow. In the end, Zillow decided that scaling up Zillow Offers was too risky, too volatile and offered an insufficient return on equity, according to [its third-quarter earnings call](#) on Nov. 2.

OPENDOOR AND OFFERPAD, TWO OF THE LARGEST COMPANIES IN THE MARKET, REPORTED ENCOURAGING EARNINGS ON NOV. 10 AND SEE A BRIGHT FUTURE IN THE BUSINESS.

Strength in the business

Other iBuyers have fared better. Opendoor and Offerpad, two of the largest companies in the market, reported encouraging earnings on Nov. 10 and see a bright future in the business. Overall, iBuyer purchases increased by 89% in the third quarter.

Purchases by major iBuyers



Source: Offerpad; Opendoor; Zillow

Opendoor, which holds more than 50% of the market share, increased its purchases in the third quarter by 79%, buying more homes than all major iBuyers combined. The company cited its ability to price homes, continuously adjusting its modeling and approach.

Offerpad, now the second-largest iBuyer, also cited its ability to achieve a variance of less than 1% between its aggregate estimated prices and actual sales prices.

Offerpad also highlighted its automated weekly market report, which summarizes real-time information from individual markets that is then reviewed and used to refine the company's underwriting algorithm.

This feedback loop is important and has allowed Offerpad to decrease its risk. The company also said it had adjusted its home acquisition strategy to limit the number of

MIDDLE MARKET INSIGHT

A continuous machine learning model is needed to determine if the models have what is known as model drift, or the reduction of predictive ability.

homes purchased when certain supplies were unavailable. This adjustment, the company said, would ensure that the average time from acquisition to sale remained below its 100-day target.

This speaks to the company's ability to factor other elements like [supply chain constraints](#) into its business model. Brian Bair, chief executive and founder of Offerpad, said that his company was "as much a logistics business as it was a real estate technology company."

By the numbers

The results of both companies reflect their optimistic view of the market.

- **Offerpad** reported revenue of \$540.3 million in the third quarter, up by 190% from \$186.4 million a year earlier. The company also sold a record number of homes (1,673), up by 749 from the prior quarter. Its gross profit increased to \$53.1 million, or 169%, from \$19.8 million a year earlier. More than 99% of its inventory is owned for fewer than 180 days.
- **Opendoor** also reported favorable results, with revenue of \$2.3 billion for the third quarter compared to \$338 million a year earlier, up by 569%. Gross profit rose to \$202 million compared to \$35 million a year earlier for an increase of 465%. The company continues to expand, launching in five new markets in the third quarter to bring its total footprint to 44 markets in the United States.



BECAUSE HOUSE FLIPPING IS A LOW-MARGIN BUSINESS, BUILDING OUT ANCILLARY SERVICES THAT INCREASE THE NUMBER OF TRANSACTIONS PER CUSTOMER OFFERS AN OPPORTUNITY FOR THE COMPANIES TO INCREASE THEIR MARGINS.

Add-on services

Because house flipping is a low-margin business, building out ancillary services that increase the number of transactions per customer offers an opportunity for the companies to increase their margins.

Zillow said it plans to take write-downs of as much as \$569 million and reduce its workforce by 25% as it winds down the business in the coming months. Zillow recently [reached a deal](#) to sell about 2,000 of the homes to Pretium Partners, a New York-based investment firm.

Looking ahead

As with any business, companies operating in this segment must implement sound business practices and understand the risk. Some key considerations to keep in mind:

- **Know the market:** iBuyers have found success focusing on key markets, which gives them the ability to understand the data in the specific markets to more effectively predict sale prices.
- **Mind the algorithms:** Companies need to evaluate the rules that govern algorithms, maintain a continuous validation process, and always consider the accuracy and diversity of the data used to create the algorithms.
- **Garbage in, garbage out:** Companies need to have policies around the data inputs and have a rigorous process to evaluate how data is used. Moreover, data sources must have enough diversity to compensate for changing dynamics. Approaches like human-in-the-loop model training and testing can offset some gaps in the data inputs. This is all the more important in a low-margin business.

MIDDLE MARKET INSIGHT

Opendoor, which holds more than 50% of the market share, increased its purchases in the third quarter by 79%.

- **Test, refine, repeat:** Feedback loops are necessary. Developers of algorithms and their users are often far removed from each other, and without user feedback, it's impossible to refine an algorithm. A continuous machine learning model is needed to determine if the models have what is known as model drift, or the reduction of the model's predictive ability. That Zillow's models were not compensating for changes in the supply chain caused the models to be less accurate in their predictions.
- **Consider the life cycle:** When algorithms break or perform in unpredictable ways (for example, offering a price below what the company paid), a framework is needed to check them as often as needed.

The takeaway

While a disruptive business model that depends on technology comes with risks, when the technology is used effectively, it has the potential to expand and change the way home purchases and sales are done. ■



AS THE PANDEMIC HAS SPREAD, THE WORKPLACE HAS EVOLVED, SURVEY FINDS

THE PANDEMIC has changed the way we work, leading to a more flexible work model for many businesses, according to a new survey from RSM US LLP. Middle market businesses are increasingly allowing their employees to work remotely or accommodating a hybrid arrangement in which employees split time between the office and remote locations, the survey found. And the new arrangements do not necessarily hurt collaboration or productivity.

The proprietary survey was conducted from Oct. 4 to Oct. 21 and asked 408 senior executives of middle market companies for their opinions on business conditions and work arrangements. The findings include:

36% of organizations said they had employees working remotely who were not doing so before the onset of the pandemic in March 2020.

65% of those organizations are embracing hybrid work, allowing their employees to work in the corporate workplace part of the time and remote locations for the remainder.

But are the new work arrangements hurting collaboration and productivity?

48% of businesses with workers currently working remotely indicated that reduced collaboration was a minor issue.

22% said that reduced collaboration was not an issue.



34% said that reduced productivity was a minor issue.

43% reported reduced productivity was not an issue.

Look for the complete findings in [the next MMBI special report](#) due to be released in January 2022, and follow [our series on workplace transformation](#) in The Real Economy Blog.

REAL BUSINESS INSIGHTS FOR MIDDLE MARKET COMPANIES

Check out *The Real Economy: Industry Outlook* and get data-driven, sector-specific insights from RSM's senior industry analysts, a select group of professionals dedicated to studying economic and industry data, market trends and the emerging issues faced by middle market businesses like yours.

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- Real estate and construction
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