Fourth Quarter 2021 Economic Summary and Outlook

The economy grew 7% in the fourth quarter of 2021 based on the Bureau of Economic Analysis revised estimate. Third quarter growth of 2.3% was closer to the trend growth rate. Much of the growth in the fourth quarter came from inventory accumulation, which often bleeds off growth in the following period. Going forward, first quarter growth is likely to be closer to 2%, due to drags from the Omicron virus and rising energy prices. In the short run, households will draw down on accumulated savings as a buffer. In the longer run, the danger of stagflation exists as inflation and a slowing economy develop in tandem, similar to the early 1980s.

The unemployment rate was 4% in January compared to 3.5% prior to the pandemic. A changing labor market makes it difficult to regain the remaining million or so lost jobs. Capacity utilization has been improving and is slowly closing in on the benchmark for full employment. Wage growth in 2021 was approximately 4%, which looks good to workers on the surface, but recognition of rising prices and lower real wages will eventually stimulate higher wage demands. While there is room for improvement, the economy may be getting close to full employment given current conditions.

In January, inflation measured by the Consumer Price Index reached 7.5% on a year-over-year basis with core inflation of 6%. At the same time the Personal Consumption Index gained 6.1% on a yearly basis while the core PCE index gained 5.2%. Inflation in 2021 is the highest since February of 1982. The Producer Price Index is also trending upward, suggesting that inflation is embedded in the system. Oil prices are rising to new levels and may well stay around $100 a barrel. Almost all goods are affected by oil prices, either as an input or as a cost of delivering goods and services. Inflation and sentiment data will be adversely affected by the invasion of Ukraine by Russia. This is especially true for European countries that are dependent on Russian oil. Global conditions could worsen as countries not affiliated with alliances like NATO may become fair game for conquest by Russia or China.

The Fed is walking a tightrope where moving too aggressively against inflation may well end the recovery. On the other hand, if inflation is not calmed a spiraling effect could lead to stagflation. The Fed is expected to increase the fed fund rate in the March meeting by as much as 50 basis points with another 150 basis points of increases in 2022. The Fed balance sheet runoff will become more aggressive after the March meeting, but conditions will remain expansionary. Even so, the federal fund rate will be well below the neutral rate estimated to be around 4%. Higher interest rates should dampen growth for the remainder of 2022. While government fiscal deficits will continue to a tune of about one trillion dollars, the stimulus effects from prior programs are waning.

Financial markets have a lot to deal with in 2022. Risks are elevated. While the level of interest rates will remain low, the markets will likely focus on changing rates. Geopolitical turmoil will clearly dampen investor expectations and portfolios will tilt more toward defensive investments. Cash instruments suffer the most with inflation. Longer term fixed income instruments also lose when rates rise with inflation. Many investors may prefer either asset-based investments, precious metals, or short maturity interest sensitive investments that can be rolled over at higher rates in the future. Normally, the yield curve will get steeper as expected inflation increases.

Survey of Professional Forecasters

Near Term Growth Estimates

The February 2022 Survey of Professional Forecasters conducted by the Philadelphia Federal Reserve Bank downgraded estimates of growth for the first quarter of 2022. The median forecast for first quarter growth declined to 1.8% from the 3.9% forecast provided in November of 2021. The unemployment rate forecast for the first quarter of 2022 was 3.9% with a 3.4% unemployment rate forecast for the first quarter of 2023. A summary of quarterly forecasts appears in the Table below.

Table 1. Medium -Term Quarterly Forecasts of Growth, Unemployment, and Payrolls

	Real GDP (%)		Unemployment Rate (%)		Payroll (000s/month)	
Quarter	**Prior**	**Current**	**Prior**	**Current**	**Prior**	**Current**
2022:Q1	3.9	1.8	4.3	**3.9**	407.8	436.1
2022:Q2	4.0	**4.2**	4.1	**3.7**	310.9	357.0
2022:Q3	3.1	3.0	3.9	**3.6**	321.5	257.0
2022:Q4	3.1	2.9	3.9	**3.5**	306.2	225.4
2023:Q1	N.A.	2.8	N.A.	**3.4**	N.A.	144.8

https://www.philadelphiafed.org/surveys-and-data/real-time-data-research/spf-q1-2022

Note: Green represents improvement in the forecast while red represents less favorable changes in the forecasts.

Forecaster project growth of 2.7% for 2023 and 2.3% for 2024. Longer term annual forecasts for real GDP, unemployment rate, and payroll additions appear in Table 2. Overall, while short term forecasts have been revised lower, longer term forecasts remain relatively stable. Forecasters appear to be confident that oil shortages, inflation, and geopolitical conflicts will not last.

Table 2. Annual Forecasts of Growth, Unemployment, and Payrolls

	Real GDP (%)		Unemployment Rate (%)		Payroll (000s/month)	
Year	**Current**	**Prior**	**Current**	**Prior**	**Current**	**Prior**
2022	3.9	3.7	4.1	**3.7**	439.7	430.9
2023	2.6	**2.7**	3.6	**3.4**	N.A.	N.A.
2024	2.3	2.3	3.7	**3.6**	N.A.	N.A.
2025	N.A.	2.3	N.A.	3.7	N.A.	N.A.

https://www.philadelphiafed.org/surveys-and-data/real-time-data-research/spf-q1-2022

Higher Near-Term Inflation

The forecasters predict current-quarter headline CPI inflation to average 5.5%, up from the forecast of 3.0% in the last survey. The headline PCE inflation projection for the current quarter is 4.7 %, up from the previous forecast of 3.0%. Projections for headline and core CPI and PCE inflation in 2022 have been revised upward, compared with the projections in the survey from three months ago (see Table 3). Forecasters must be assuming that the Fed eventually tamp down inflation.

Table 3. Quarterly Projections for Inflation (Annual Percentage Points)

	Headline CPI (%)		Core CPI (%)		Headline PCE (%)		Core PCE (%)	
Quarter	Prior	Current	Prior	Current	Prior	Current	Prior	Current
2022:Q1	3.0	5.5	2.8	5.1	3.0	4.7	2.5	4.3
2022:Q2	2.6	3.8	2.6	3.6	2.5	3.1	2.4	3.1
2022:Q3	2.5	2.7	2.6	3.1	2.3	2.6	2.3	2.5
2022:Q4	2.4	2.7	2.4	2.6	2.2	2.4	2.1	2.3
2023:Q1	N.A.	2.5	N.A.	2.5	N.A.	2.3	N.A.	2.3

Source: https://www.philadelphiafed.org/surveys-and-data/real-time-data-research/spf-q1-2022

Over the next 10 years, 2022 to 2031, forecasters predict headline CPI inflation to average 2.5% at an annual rate. The corresponding estimate for 10-year annual-average PCE inflation is 2.2% percent. These 10-year projections are slightly below those of the previous survey in November.

Table 4. Annual Projections for Inflation (Annual Percentage Points)

	Headline CPI (%)		Core CPI (%)		Headline PCE (%)		Core PCE (%)	
Quarter	Prior	Current	Prior	Current	Prior	Current	Prior	Current
2022	2.7	3.8	2.6	3.6	2.4	3.1	2.3	3.1
2023	2.4	2.4	2.4	2.5	2.2	2.2	2.1	2.2
2024	N.A.	2.3	N.A.	2.4	N.A.	2.2	N.A.	2.2

Source: https//www.philadelphiafed.org/surveys-and-data/real-time-data-research/spf-q1-2022

Professional Forecasters' Housing Price Growth Estimates for the Next Two Years

Of the 36 panelists in the Survey of Professional Forecasters, 15 provided estimates for growth in housing prices in the latest survey. Forecasters believe the growth in home prices will slow in 2022 from the torrid pace in 2021 and continue to fall in 2023. Overall, the median estimates for increases in six different house price indices ranged from 7% to 8.5% in 2022 and from 3.9% to 6% in 2023. One caveat is that the number of forecast responses for each index is low. Table 5 summarizes the results from the home price survey.

Table 5. Estimates of Growth in Home Price Indices (Q4/Q4 % Change)

	2022 Q4/Q4 % Change		2023 Q3/Q4 % Change	
Index	Number of Forecasters	Mean Forecast	Number of Forecasters	Mean Forecast
S&P CoreLogic Case-Shiller: U.S. National	8	7.0	8	3.8
S&P CoreLogic Case-Shiller: Composite 10	1	8.1	1	4.6
S&P CoreLogic Case-Shiller: Composite 20	4	8.6	4	4.9
FHFA: Purchase Only (U.S. Total)	7	9.4	7	5.6

Source: https://www.philadelphiafed.org/surveys-and-data/real-time-data-research/spf-q1-2022

U. S. Labor Market – The Great Worker Resignation

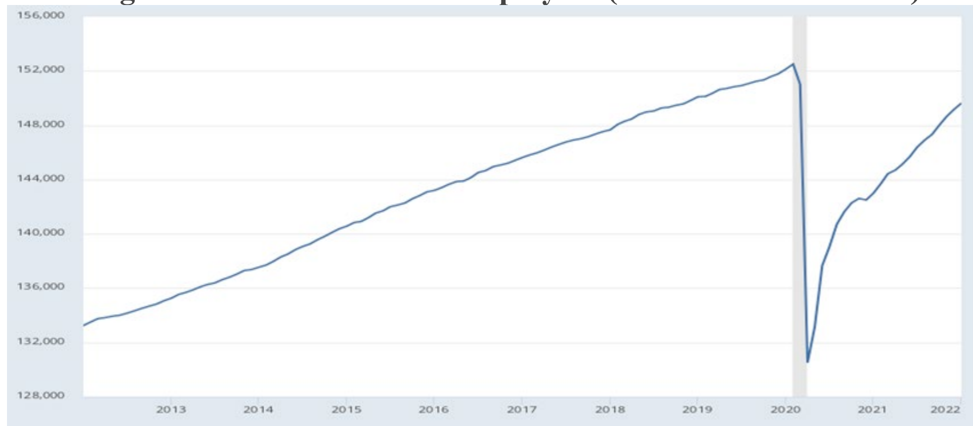
The U. S. labor market is following highly unusual patterns. Rising nominal wages with falling real wages, high quit rates, and severe labor shortages persist, even though around one million jobs are yet to be replaced from the 2020 shutdown. The unemployment rate fell from a high of 13% at the start of the shutdown to 4% by the end of 2021 (see Figure 1).

Figure 1. U. S. Headline Unemployment Rate (%)

Source: Source: Bureau of Labor Statistics, St. Louis Federal Reserve - FRED

On one hand, the demand for workers boomed as the economy opened, but millions of eligible workers either retired or simply left the workforce. Unlike other post-recession labor markets characterized by too few jobs, this recovery is held back by too few workers. Job growth has been good, as expected when the economy opened, but employment has not yet reached the pre-pandemic level (see Figure 2). The recovery remains fragile and both monetary and fiscal policy will be expansionary throughout 2022, although monetary expansion will be slower.

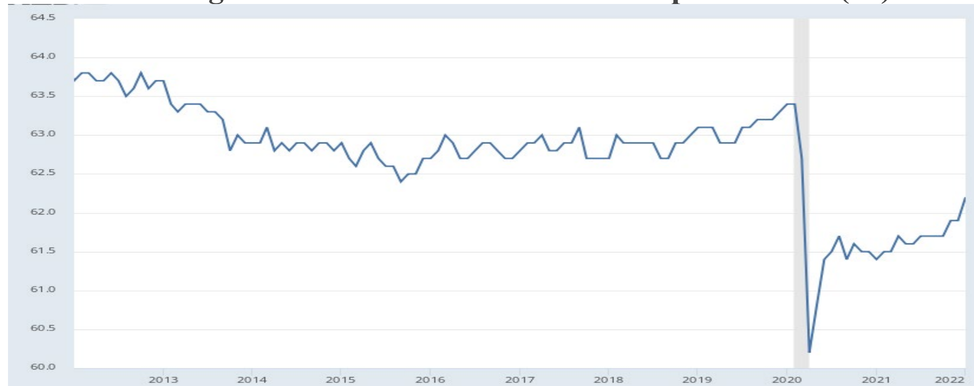
Figure 2. Total Nonfarm Employees (thousands of workers)



Source: Source: Bureau of Labor Statistics, St. Louis Federal Reserve – FRED

The COVID pandemic may have changed the way people view work. Normally, the dramatic loss of jobs in a recession is followed by an equally large increase in workers seeking jobs in the recovery. Currently, workers actively seeking employment have leverage, which creates a type of speculative job search leading to higher quit rates. The potential labor force has been reduced to the point where the unemployment rate will need to go much lower than 4% to recapture the remaining 2 million jobs lost in the pandemic. Figure 3 shows the decline in the labor force participation rate following the COVID shutdown.

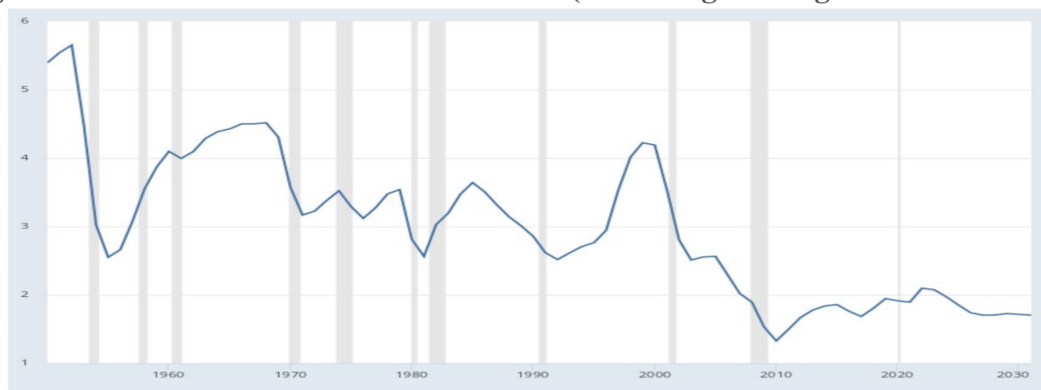
Figure 3. U. S. Labor Force Participation Rate (%)



Sources: Bureau of Labor Statistics, https://fred.stlouisfed.org/series/CIVPART

Disruptions in the labor market during the pandemic are symptomatic of a longer run problem facing almost all global economies. Growth in population and the potential labor force is slower than growth in productivity. Economic growth slows unless the labor force participation rate increases to make up the difference in slower population growth or unless technology provides a boost to labor productivity. Figure 4 provides the Congressional Budget Office (CBO) estimates of the real potential GDP growth over time. The pattern of lower potential GDP growth estimates reflects the combined impact of lower population growth and lower labor productivity. The CBO's estimate of the potential growth rate has been below 2% since the 2009 recession.

Figure 4. Real Potential GDP Growth Rate (Percentage Change from Year to Year)



Sources: Congressional Budget Office, St. Louis Federal Reserve - FRED

Inflation, Recessions, and Interest Rates

Measuring Inflation

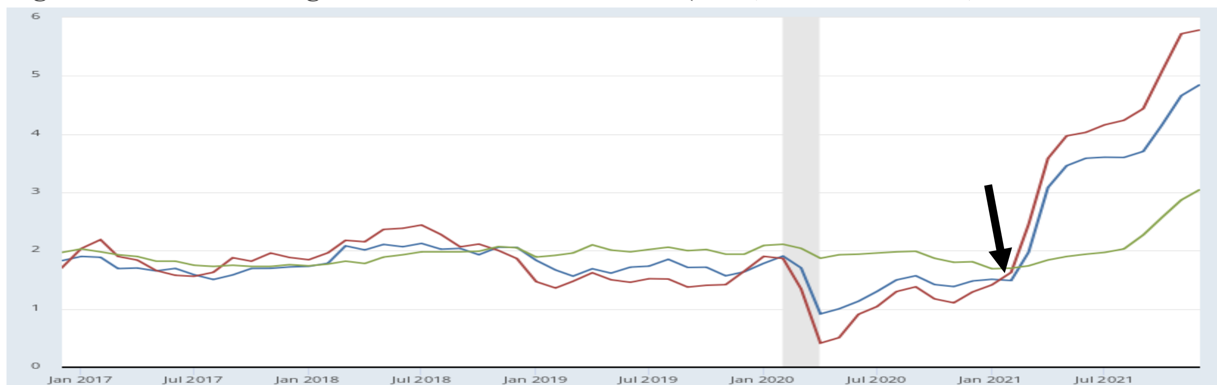
Inflation is generally defined as an overall increase in the price level for goods and services. Alternatively, inflation is defined as a percentage decline in the purchasing power of a currency over a given time period. The two most common measures of inflation are the Consumer Price Index (CPI), released by the Bureau of Labor Statistics, and the Personal Consumption Expenditure Index (PCE), released by the Bureau of Economic Analysis. Both measures shape market rates, income, and policy. The CPI is used to adjust social security payments and cost of living allowances. The CPI is also a reference rate for Treasury Inflation Protected Securities (TIPS) and inflation swaps. The PCE is the Fed's preferred measure of inflation. The current target is 2%, but the Fed now calls for 2% "on average" to allow for fluctuations.

The CPI is based on a survey of what households are buying while the PCE is based on surveys of what businesses are selling. The CPI uses a narrowly defined "typical" basket of goods consumed by households. The PCE uses a much wider set of goods and services to measure price changes. As a practical matter, both indexes tend to provide similar inflation rates over longer periods with the CPI providing slightly higher rates. Some components of price indexes, such as food and energy, are more volatile and are excluded to get the "core" inflation rate. The core rate is a better indicator of where inflation is trending while the headline measure offers a better representation of household expenses. Normally, the headline measure is higher.

The Federal Reserve Bank of Dallas uses an inflation formula designed to capture underlying inflationary pressure. The "trimmed mean" measure uses changes in prices of individual goods and services that make up the price index after dropping items with exceptionally large or exceptionally small price changes. The end result is a measure that captures a trend without extreme volatility. The chart below illustrates movement in the headline, core, and trimmed mean inflation rates over the last year.

The patterns in Figure 5 show that much of the inflation in the headline and core PCE measures are not in the trimmed mean measure. This suggests that much of the increase in the CPI and PCE are due to spikes that are eliminated in the trimmed mean. The relationships in Figure 5 might explain why the Fed has been slow to respond to inflation, to the extent that the Fed considers the trimmed mean measure. On the other hand, rather than a spike, energy prices may now be on a more permanent upward trend with a rising mean due to policies that reduce the development and supply of U. S. fossil fuels and consequences of Russian oil imports. A deeper understanding of inflation may evolve as we the patterns in Figure 5 develops in 2022.

Figure 5. Percent Change in PCE Inflation Measures (Core, Trimmed Mean, and Chain Indexes)



Sources: Bureau of Economic Analysis, Dallas Federal Reserve Bank, Federal Reserve Bank of St. Louis -FRED
Personal Consumption Index Excluding Food and Energy Chain-type Index
Personal Consumption Index Chain-type Index
Trimmed Mean Inflation Index

Winners and Losers

Once inflation takes hold it is difficult to reverse price pressures and distortions on economic activity. In the early stages, expectations of inflation tend to be too low. As expectations begin to spiral they become self-fulfilling. For example, consumers increase purchases today thinking prices will rise in the future, causing excess demand and upward price pressures. Rising prices feed into cost of living allowances and higher wage demands, fueling more inflation. Also, lenders

build expected inflation into borrowing rates. When inflation exceeds expectations, lenders suffer lower real rates of return and compensate by raising expectations and rates. This spiral of inflation and interest rates encourages more borrowing, since borrowers benefit from locking in lower rates today. Sequential changes in purchasing power and prices continues until expectations of higher inflation are broken, which requires contractionary policies at a time when leverage is high. This was a painful lesson learned in the late 1970s and early 1980s.

Neoclassical economists point to inflation and distortions it causes in relative prices as a major cause of recessions. Even Keynesians recognize the need for a contraction to stem inflationary spirals. Yet, not everyone favors low inflation. For example, individuals with tangible assets prefer to see inflation that raises the prices of their assets. Debtors with fixed rate loans also prefer inflation, since repayments are in dollars that are worth less than the dollars borrowed. Ironically, the largest debtor to benefit from inflation is the U. S. government. World history is full of examples where governments promoted inflation as a way of dealing with a debt crisis. Unfortunately, inflation places a disproportionate burden on lower income households who struggle to keep wages rising with inflation while spending most of their income on higher priced goods. Lower income households also tend to hold assets, such as cash or savings deposits, that fall in real value with inflation. Older people are also hurt because they often live on fixed income.

While inflation poses a disproportionate burden on low income households, lenders, and the elderly, everyone is hurt by inflation in less visible ways. Inflation encourages speculation, leverage, and an overall uncertainty about the future. Since not all prices rise in a way to maintain relative market price differences, false market signals lead to a misallocation of resources and lower overall growth. Prices are market signals of information that deviate from fundamentals in inflation periods. Economic behaviors based on guesses of where prices are going are often wrong, leading to inefficiencies and added risks. When the inevitable contraction occurs, either due to a conscious policy to fight inflation or to a more natural cyclical adjustment, the trough is deeper and steeper due to the higher risk profile.

Inflation Target, Neutral Rate of Interest, and Fed Funds

The Federal Reserve Bank has a dual objective of maintaining price stability and full employment in the labor market. Going into the self-imposed recession, added stimulation from fiscal policy was designed to maintain consumer demand and added expansion of the money supply provided ample liquidity at low rates. With little inflation pressure at that time, the Fed was all-in on achieving full employment. Inflation pressures grew from increased fiscal deficits, accelerated money supply growth, supply chain glitches, and self-imposed reductions in the domestic energy supply. As the economy fully opened, consumer pent up demand and record levels of accumulated savings supplemented with record consumer debt led to strong aggregate demand. It is no surprise that inflation reached 7.5% on a year-ago basis in January, prompting a change in direction by the Fed for 2022. The rate of expansion in the money supply will slow while the federal fund rate rises.

The Fed has powerful tools but it can't just immediately lower prices of goods and services. A common rule of thumb based on history is to expect about a two-year lag between tight monetary policy and lower inflation. A higher federal fund rate target is the first move as open market operations reduce bond purchasing programs while also slowing sales of securities from the Fed's balance sheet. These moves begin to soak up bank reserves and have a contractionary multiplier

effect on the money supply. The immediate concern is about how far and how fast the Fed will raise interest rates with this policy. Some of the Federal Reserve Governors are open to a 50 basis point increase at the March 15-16 meetings, although the Fed normally follows a gradual increase of only 25 basis points. Nevertheless, a consensus is building for the view that the Fed will increase the rate at least four times in 2022. Even so, the federal fund rate would be in the 150 to 175 basis point range by the end of the year. While the markets may react to the change in rates, rather than the level of rates, the Fed will still be in an expansionary position for the remainder of the year.

The current massive expansionary role played by the Fed in recent years must first be undone slowly to reach a point of neutrality. A neutral rate, in theory, supports the economy at full employment and maximum output while keeping inflation constant. The neutral rate is not observed directly, but the most basic rule is given below.

Neutral Rate = (Trend Growth Rate of the Economy) + (Inflation Target for Stable Prices)

Currently, the inflation target is 2% and the Congressional Budget Office estimates the trend growth rate of the economy to be 2%, resulting in a 4% neutral rate. This anchor for the federal fund rate is certain to be well above the rate achieved at the end of 2022. The Fed will continue to be expansionary even while the economy is recovering. The implication is that inflation pressures from macroeconomic policies will persist into 2023.

Summary of Recent Economic Data

Gross Domestic Product (GDP) – *The Bureau of Economic Analysis reported a 7% GDP growth rate in the fourth quarter. The strong fourth quarter followed a more modest growth rate of 2.3% in the third quarter. Fourth quarter growth included a large increase in inventory investment, which is a more transitory component of growth. A spike in Omicron COVID cases early in January, higher prices of energy, and the recent invasion of Ukraine by Russia will likely hamper growth in the first quarter. Higher interest rates driven by Fed policy and higher expected inflation will hamper growth for the remainder of 2022. The potential for major disruptions in the supply of global energy exists, presenting a major obstacle to global growth going forward.*

- The Bureau of Economic Analysis's estimated fourth quarter GDP growth of 7% in the latest revised report. The robust growth in the fourth quarter followed modest growth of 2.3% in the third quarter. Fourth quarter growth is likely to be overstated. About 70% of the growth came from inventory accumulation, included in the fourth quarter's investment data.

- The spike in the Omicron virus took place too late to affect fourth quarter growth, but it should dampen first quarter growth.

- Fourth quarter growth picked up largely due to an acceleration in inventory investment, an upturn in exports, and strong consumer spending. Government spending was a drag as various assistance payments and social benefits to households expired or tapered off. The increase in imports also presented a significant drag of growth. Table 6 summarizes the percentage change in GDP and its components.

Table 6. GDP and GDP Components - Percentage Change from Previous Period

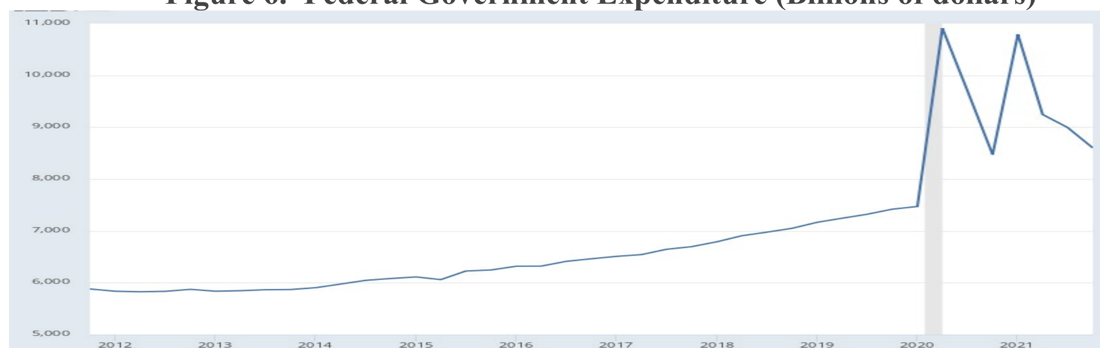
				2020				2021			
	2019	2020	2021	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
GDP	2.3	-3.4	5.7	-5.1	-31.2	33.8	4.5	6.3	6.7	2.3	***7.0***
Consumption	2.2	-3.8	7.9	-6.9	-33.4	41.4	3.4	11.4	12.0	2.0	***3.1***
Gross Investment	3.4	-5.5	9.6	-5.3	-48.8	82.1	24.7	-2.3	-3.9	12.4	***33.5***
Government	2.2	2.5	0.5	3.7	3.9	-2.1	-0.5	4.2	-2.0	0.9	***-2.6***
Exports	-0.1	-13.6	4.6	-16.3	-59.9	54.5	22.5	-2.9	7.6	-5.3	***23.6***
Imports	1.2	-8.9	14.0	-13.1	-53.1	89.2	31.3	9.3	7.1	4.7	***17.6***

Source: Bureau of Economic Analysis, https://www.bea.gov/data/gdp/gross-domestic-product

- Government spending spiked with new programs and transfer payments during the early part of the pandemic, permanently adding to the approximately thirty trillion national debt. The impacts of these spending programs are dwindling and the economy now needs to make it without adding to the growth of fiscal spending. Deficits will likely reach one trillion dollars in 2022, if there are no significant changes in the budget.

- Figure 6. illustrates the spikes in government spending during the pandemic and the declining trend expected in the near term.

Figure 6. Federal Government Expenditure (Billions of dollars)



Sources: Bureau of Economic Analysis, St. Louis Federal Reserve - FRED

Income, Savings, and Sales *- Personal saving increased significantly during the pandemic for two reasons. First, government transfer payments and income supplement programs provided income to make up for lost jobs. Second, there were fewer opportunities to spend during the shutdown. The accumulated savings helped support spending in 2021 and will help cushion the blow of higher inflation in the first quarter of 2022. Sales of durable goods rebounded in the fourth quarter, largely driven by increased auto sales. Higher financing rates later in 2022 will likely dampen durable good sales.*

- While GDP growth in the fourth quarter was strong, inflation took a healthy bite out of household budgets. Real disposable income fell 5.6% in the fourth quarter.

- Personal income was flat from December to January following growth of 0.4% in December and 0.6% in November. Inflation-adjusted disposable income fell 0.5% in January as wage and salary income failed to keep pace with inflation.

- Real spending gained 1.5% in January following a decline of 1.3% in December and no change in November. Spending on durable goods gained 8.5% to top all spending. Nondurable spending rose only 11.9%. Overall, the trend in real spending is weak.

- The saving rate fell to 7.6% in the fourth quarter from 9.5% in the prior quarter.

- Figure 7 shows the declining saving rate as well as the spikes that occurred when government transfer payments boosted savings.

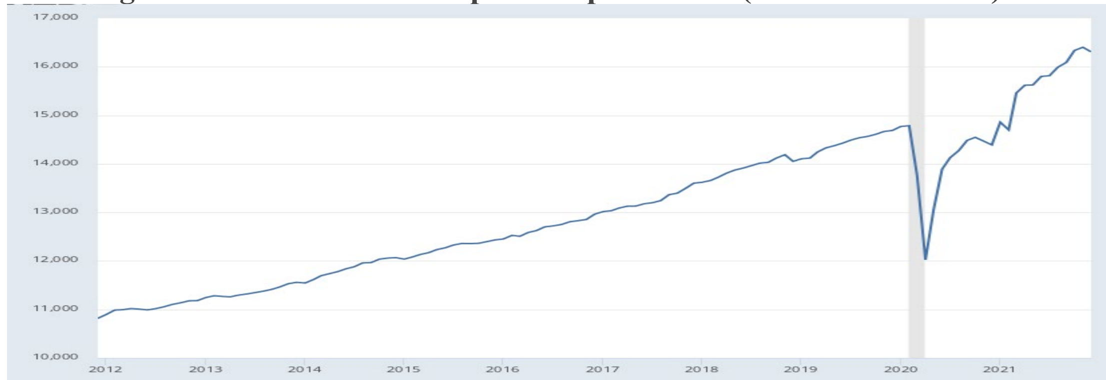
Figure 7. Personal Savings Rate (% of Disposable Income)

Source: https://fred.stlouisfed.org/series/PSAVERT, Bureau of Economic Analysis

- Retail sales soared with auto sales providing much of the improvement. Total sales improved by 3.8% in January following a reversal of 2.5% in December. Gains in sales also occurred for non-store retailers, department stores, and furniture stores. Declines were led by sporting goods stores, hobby stores, gas stations, restaurants, and drugstores.

- Consumer spending has returned to its long term path, although with more volatility. Figure 8 illustrates the deviation from trend during the pandemic and a return to trend as the economy slowly opened up again.

Figure 8. Personal Consumption Expenditures (Billions of dollars)



Sources: Bureau of Economic Analysis, St. Louis Federal Reserve - FRED

- Consumer spending is supported by pent up savings and credit purchases. The stock of consumer credit outstanding expanded by $18.9 billion in December, boosting sales. Nonrevolving credit increased by $16.8 billion in December, making up the bulk of increased consumer credit. Credit-backed spending will likely slow as interest rates rise.

Production and Manufacturing – *ISM manufacturing index fell in December and is now below the six-month average of 59.7. The index remains above a neutral level of 50 but it is not consistent with a strong recovery. Both new orders and production fell in January but the Industrial Production Index continues to strengthen in the post-pandemic period.*

- Supplier deliveries improved slightly in January. All told, manufacturing should do well this year as supply-chain issues ease and businesses replenish inventories. Potential obstacles include inflation and potential oil shortages

- U.S. industrial production gained 1.4% in January following a decline of 0.1% in December. On a year-ago basis, industrial production was up 4.1%. On a pre-pandemic basis, industrial production was 2.1% higher. Figure 9 illustrates the movement of the Industrial Production Index over the last decade.

Source: Board of Governors of the Federal reserve, fred.stlouisfed.org/series/INDPRO

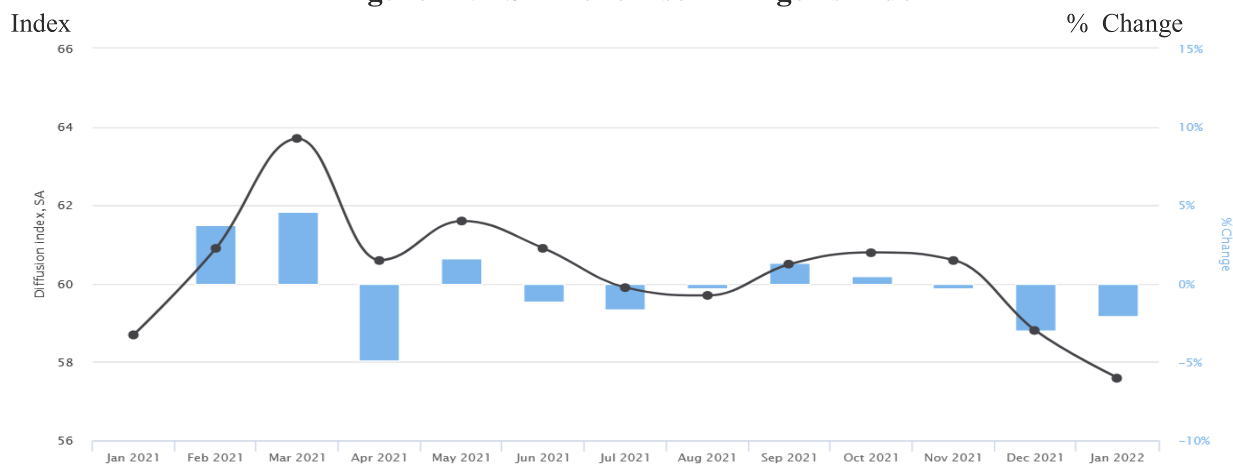
- Total industrial capacity utilization increased from 76.6% to 77.6% in January. Figure 10 provides the graph of capacity utilization over time. Capacity utilization has now increased beyond the pre-pandemic level and is edging closer to full employment.

Figure 10. Manufacturing Capacity Utilization (% of Capacity)

Source: Source: Board of Governors of the Federal reserve, fred.stlouisfed.org/series

- The ISM manufacturing index fell from 58.8 in December to 57.6 in January. While, the ISM index remains above the neutral threshold of 50, the index is below the six-month average of 59.7, suggesting a weaker manufacturing sector. Both new orders and production fell in January. Figure 11 illustrates the weakening of the ISM index since May of 2021.

Figure 11. ISM Purchase Manager's Index



Source: https://www.economy.com/united-states/purchasing-managers-index

- U.S. factory orders fell 0.4% in December, the first decline since April. Business inventories increased by 2.1% from November to December. The total business inventory-to-sales ratio increased from 1.29 from 1.25 in November. Overall, inventories are slowly coming down. The inventory to sales ratio was 1.35 one year ago.

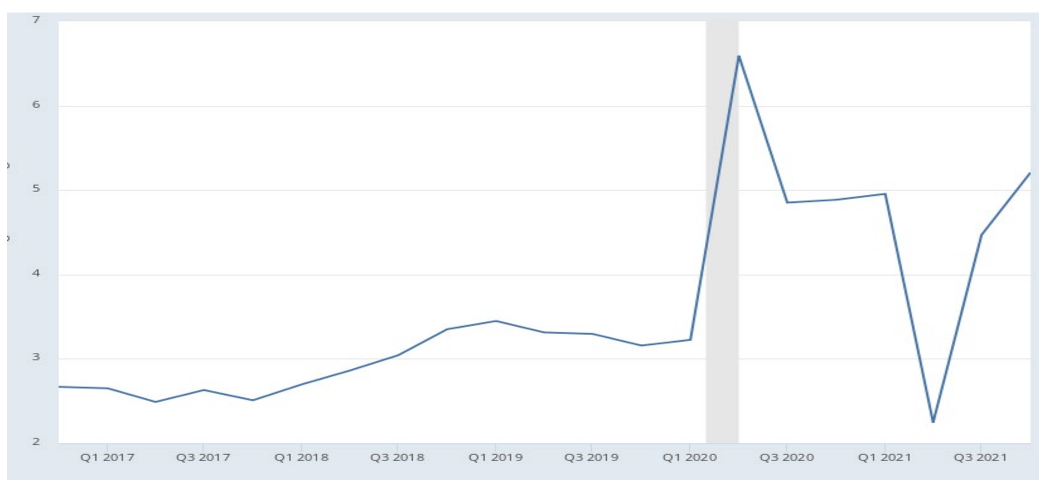
***Labor and Employment** – Overall, 2021 was a good year for employment. The unemployment rate (U2) stood at 4% in January, which represents a healthy 2.4% decline over the year. The number of unemployed declined by 3.7 million for the year. There is some room for continued improvement. The pre-pandemic unemployment rate was 3.5%.*

- The Bureau of Labor Statistics reported that the unemployment rate was 4.0% and the number of unemployed persons was 6.5 million. Both remained constant in January. For the year, the unemployment rate fell by 2.4% and the number of unemployed persons declined by 3.7 million. In comparison, prior to the coronavirus pandemic in February of 2020 the unemployment rate was 3.5%, and unemployed persons numbered 5.7 million. Figure 12 shows the progress in the unemployment rate over time.

- Total nonfarm payroll employment rose by a healthy 467,000 in January. Nonfarm productivity gained 6.6% at an annualized rate in the fourth quarter. Overall output increased 9.2%, while hours worked gained 2.6%. Unit labor costs rose slightly by only 0.3% in the fourth quarter following increases of 9.3% in the third quarter and 5.9% in the second quarter. Overall, productivity grew only 1.9% in 2021.

- Initial claims for unemployment insurance increased from 225,000 to 248,000 in the week ended February 12. This reverses some of the recent declines. The four-week moving average fell by about 10,000.

- The year over year wage gain in January was 4% according to the Federal Reserve Bank of Atlanta wage tracker. Gains in white collar jobs (finance, information systems, and professional employees) were 4.4%. Average hourly earnings were $31.25. The figure below illustrates average hourly wage gains.



Source: https://fred.stlouisfed.org/series/CES0500000003#0

Sentiment and Confidence - *U.S. consumer confidence weakened going into the first part of February of 2022, reaching a cyclical low. The survey ended prior to the Ukraine invasion, which will likely affect the index going forward. The University of Michigan Sentiment Index fell to the lowest level of consumer confidence in the past decade. Survey respondents weighed inflation, declines in personal finances, certain increases in interest rates, falling confidence in the government policies, and blustering threats from Russian and China.*

- The University of Michigan sentiment index fell to a cyclical low of 62.8 in February from 67.2 in January. The survey was conducted prior to the Ukraine invasion by Russia. The expectations component fell 6.7 points while the present conditions component declined only 3.5 points. Sentiment measured by the survey hit a cyclical low even though COVID infections are declining and overall employment conditions are strong. Median 12-month Inflation expectations inched higher to 5% from 4.9% in January. Figure 13 illustrates the history of the University of Michigan Sentiment Index.

Figure 13. University of Michigan Consumer Sentiment (Index = 100 in 1966)

Source: University of Michigan, St. Louis Federal Reserve - FRED

- The Conference Board's Consumer Sentiment Index fell from 111.1 in January to 110.5 in February. While the decline is modest, the combination of geopolitical risk, lingering COVID concerns, and rising inflation presents a drag on sentiment.

- The Conference Board Leading Economic Index edged down 0.3% following a revised 0.7% increase in December. The Conference Board's Coincident Index (present conditions) rose 0.5% in January, suggesting the economy is on track.

***Inflation** – Year-over-year measures of inflation in January reached highs not seen since 1982. Even without rising oil and food prices, inflation is trending well above the 2% PCE inflation target. The Producer Price Index (PPI) shows added pressures in the pipeline of goods that have yet reached final demand. A major concern for 2022 is the potential for spiraling inflation and a reversal of the recovery.*

- Oil prices were rising even before the Russian invasion of Ukraine as global supplies were not keeping up with global demand in recovering economies. Oil prices spiked to $105 a barrel in the initial phase of the Russian invasion but pressures are easing somewhat. Initial bluster on sanctions targeted Russia's key economic export (oil) but the concern over economic damage to other countries led to an exemption of oil from sanctions. Even so, consumers will feel the pain of higher energy prices as demand picks up in the spring and summer. Uncertainty about actions that might be taken by countries in the Middle East or Russia may also play a role in oil prices going forward.

- The figure below shows the upward trend in oil prices in the post-pandemic period. Oil prices are now higher than in the pre-pandemic period, suggesting that not all oil price movement is due to added demand from the recovery.

Figure 14. West Texas Intermediate Crude Oil Price (Dollar per Barrel)

Source: U. S. Energy Information Administration, https://fred.stlouisfed.org/series/DCOILWTICO

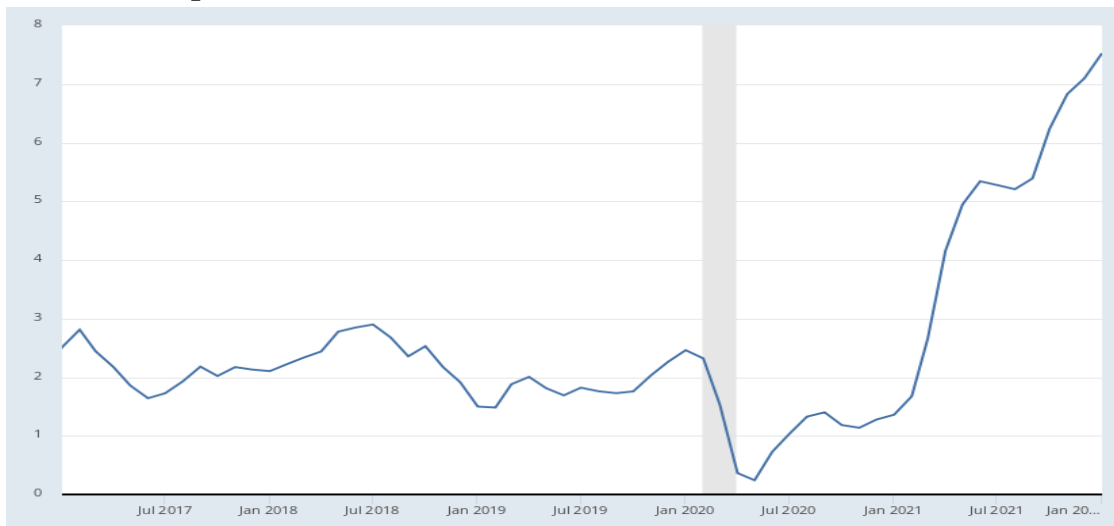
- The headline PCE deflator gained 0.6% in January. At the same time food prices increased 0.9% while energy prices were up 1.1%. The core PCE deflator Excluding food and energy, the PCE deflator increased 0.5% for the fourth consecutive month. On a year-ago basis, the headline PCE deflator increased 6.1% in January following a 5.8% gain in December. The core PCE deflator was up 5.2% on a year-ago basis in January.

- The headline CPI and the Core CPI were both 0.6% higher in January. On a year-ago basis, the headline and core CPIs were up 7.5% and 6%, respectively. This is the largest 12-

month increase since the 12-month period ending February 1982. Food prices increased 7.0% over the past year, while energy prices rose 27.0%.

- Figure 15 illustrates the rising trend in the CPI in the post-pandemic period, roughly mirroring the pattern for post-pandemic oil prices. As we learned in the stagflation period of the 1980s, oil is a key driver of almost all other prices, since products must be delivered by oil-based transportation and delivery.

Figure 15. Consumer Price Index for All Urban Consumers



Source: Bureau of Labor Statistics, https://fred.stlouisfed.org/series/CPIAUCS

- The U.S. Producer Price Index for final demand increased 1% in January after rising 4% in December. The PPI for final-demand goods increased 1.3%. Energy was up 2.5% in January while food prices increased 1.6%. Excluding food and energy, the PPI for goods still posted a solid 0.8% gain.

***Housing** - While home prices gained 18.6% in 2021, the housing market showed signs of slowing in the first part of 2022. The combined run-up in home prices and more recent increase in mortgage rates made housing less affordable as 2021 ended. In January, the National Association of Realtors home sales index reached its lowest level since April 2021.*

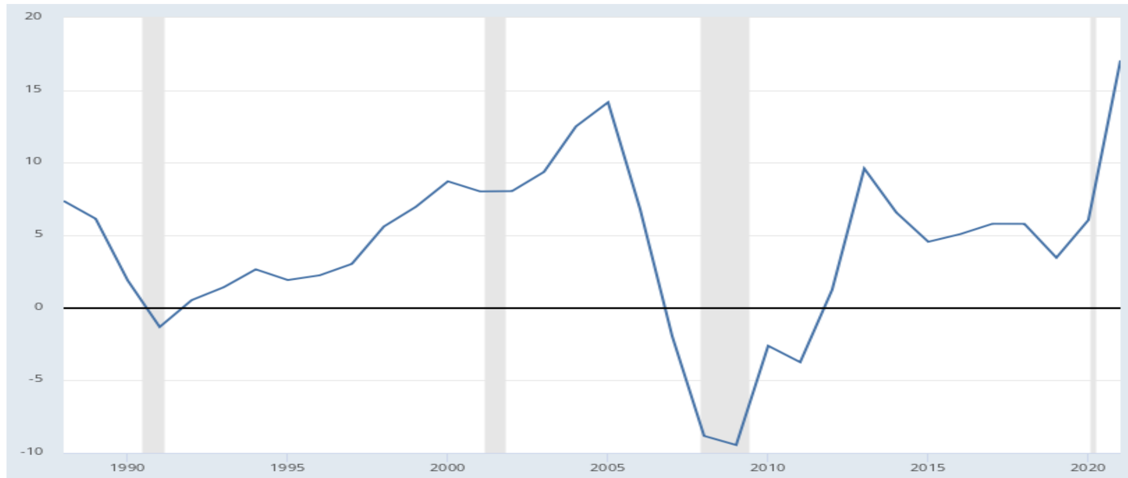
- The National Association of Realtors pending home sales index fell 5.7% in January, reaching its lowest level since April 2021. The national pending home sales index is now down 9.5% from its year-ago level.

- New-home sales fell from a revised 839,000 in December to 801,000 in January. The median sales price of a new home was $423,300.

- The S&P CoreLogic Case-Shiller 20-City Composite Index gained only 2.78% in the fourth quarter, well below the 5% long run average quarterly increase in home prices. For 2021, home prices increased 18.6% from December 2020.

- Figure 16 shows the annual percentage increase in the S&P/Case Shiller National Home Price Index since 1985.

Figure 16. S&P/Case Shiller U. S. National Home Price Index Annual % Change



Source: https://fred.stlouisfed.org/series/CSUSHPINSA#0

- Existing-home sales increased 6.7% in January balancing out December's loss. Sales in January 2022 reached the highest level since January 2021.

- Homebuilder confidence declined modestly in February. Despite strong demand, material bottlenecks and rising construction costs caused builder sentiment to slip. Even so, builder confidence remains well above the 50-point threshold indicating good building conditions over the coming months.

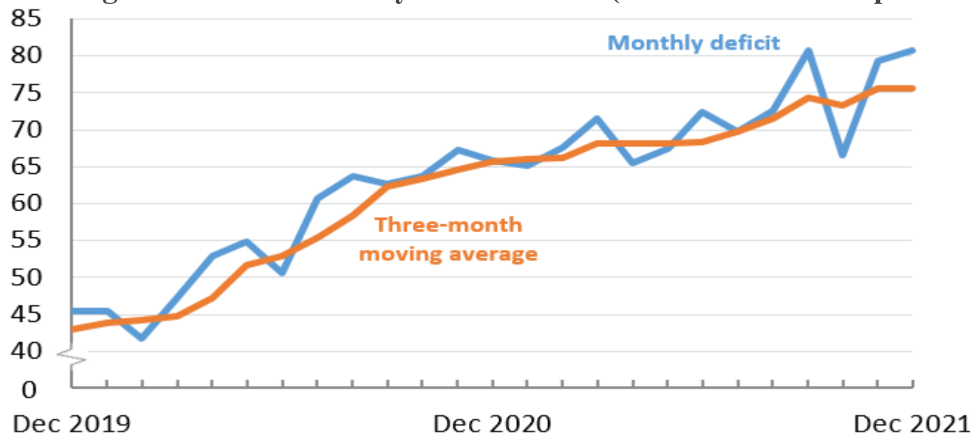
***U. S. Trade** – According to the Bureau of Economic Analysis, the U.S. trade gap in goods and services increased 27% in 2021. Imports surged, largely due to increased purchases of computers, games, and electronics. Exports also increased but did not keep up with imports. Exports were led by pharmaceuticals, aircraft engines, cars, and nonmonetary gold. China, Mexico, and Canada continue to be the leading trading partners of the U. S.*

- The U.S. trade gap expanded by 27% in 2021, an annual record. The $859 billion deficit represents a drag on GDP growth. Imports grew by $576.5 billion due to both strong demand for foreign goods and higher prices for imports. Exports increased by $394.1 billion as global demand slowly recovers.

- In December, the trade deficit increased to $80.7 billion, which is close to the record set this last September.

- Figure 17 shows the U.S. monthly trade deficit over the past three years relative the three-month moving average deficit. The U. S. trade deficit has trended up in part due to the faster recovery from COVID in the U. S. than in many other countries. Also, the U. S. is no longer energy independent due to restrictions imposed on oil production, leading to increased imports of oil.

Figure 17. U. S. Monthly Trade Deficit (Billions of Dollars per Month)



Source: Bureau of Economic Analysis, https://www.bea.gov/news/2022/us-international-trade-goods-and-services-december-2021

Global - The New World Order?

The long awaited invasion of Ukraine by Russia may well be the first step toward a new world order. Russia's motivation is both economic and political. Control in Ukraine solidifies its gains in Crimea in 2014 during the Obama/Biden administration. Russia survived the consequences of the incursion in Crimea, suggesting that an invasion of Ukraine would eventually follow suit. Russia's primary economic industry is energy, which benefits from higher prices of oil and warm water ports in the Black Sea. The costs of sanctions are not likely to be enough to offset these advantages gained from the invasion, especially since there will not be sanctions on Russian oil exports. Sino-Soviet relations are improving, visibly demonstrated by Putin's presence at the Beijing Olympics. China has already excused Russia's movement into Ukraine and is announcing new purchases of Russian oil, coal, and wheat. China alone may well provide a market that replaces some of Russia's export sanctions. The U.S. lost its energy independence with a series of moves to include cancellation of the Keystone Pipeline and higher restrictions on drilling and development of oil and natural gas. Higher energy prices benefit Russia and cripple the U. S. just as an economic recovery is already being threatened by high inflation. The longer term benefits from the invasion of Ukraine are important for the Russian economy and the short term disruptions from sanctions may be manageable. This is especially true if oil producers in the Middle East choose to take advantage of higher oil prices.

Ukraine plays a key role in Russia's long term economic and military presence in Europe. Putin clearly has a goal of returning to the Soviet Union of the cold war and wants a buffer of Russian satellites in Europe. The invasion of Ukraine provides a testing ground for the response of NATO

and provides a field exercise for the Russian military. The resolve of NATO to offer effective defense of Lithuania, Latvia, and Estonia may also be tested eventually. Russia is in a much better position to conduct military operations in these areas than a U. S. supported NATO force. China has been and will be supportive of Russia's expansion goals. China has similar goals in Southeast Asia with Taiwan as the likely first target. There has been little response from the Western countries for the way China violated the "one country but two separate systems" principle in Hong Kong or the massive human rights violations in China, especially for Muslims. A cooperative alliance of Russia and China will threaten the U. S. position in global politics and economics. Such an alliance would be the beginning of a "new world order."

It was expected that Russia, China, or North Korea would test Biden in the early years of his administration. The long period leading up to the Ukraine invasion allowed for moves in anticipation of the reaction of the U.S. and Europe. Russia clearly "gamed" the situation well in advance of the invasion and measured the resolve of the U.S. to be involved in foreign conflicts. The poorly planned and disastrous exit from Afghanistan signaled the U. S. leadership's distaste for foreign involvement and lack of intelligence for situations on the ground. The weakened state of the U.S. economy from COVID, inflation, lack of political unity, dependence on foreign energy and financing, and perceived passive leadership with respect to China and Russia all played a role in the invasion of Ukraine. When we add Putin's goals for changing the geopolitical landscape of the world and his personal profile as a bully, the current situation is an expected outcome.

The best case scenario would be for the Ukraine resistance to be so costly to Russia that the oligarchs behind the scene in Russia move to replace Putin. This would be a loss of face that is hard to swallow for Russians. The resolve of Ukrainians is likely to make for a difficult position for Russia even if and when they set up a puppet government in Ukraine.

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