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ECONOMIC OUTLOOK UPDATE

MONTHLY

JULY 2022

About the Analysis in this Report

A well-prepared business valuation contains a thorough and relevant economic section. Revenue Ruling 59-60 requires consideration of "the economic outlook in general and the condition and outlook of the specific industry in particular." Understanding the economic outlook is fundamental to developing reasonable expectations about a subject company's prospects. In any business valuation, the general economic outlook as of the appraisal date should be considered, since the national economic outlook is often the basis of how investors perceive alternative investment opportunities at any given time. Appraisers and analysts should integrate the information presented in the Economic Outlook Update with their valuation assignment and discuss how the economic information impacts their valuation assumptions and conclusions.

In this analysis, we examine the general economic climate that existed at the end of July 2022. This summary provides an overview of some selected economic factors that prevailed at that time as well as a discussion of the factors that are crucial over an extended period. Topics addressed include general economic conditions, gross domestic product, consumer prices and inflation rates, energy prices, interest rates, unemployment, consumer spending, the stock and bond markets, construction, manufacturing, real estate markets, and the future economic outlook.

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The *Economic Outlook Update* (ISSN 1558-4062) is published monthly and quarterly by Business Valuation Resources, LLC, 111 SW Columbia Street, Suite 750, Portland, OR 97201-5814. The annual subscription price for the *Economic Outlook Update* is $369. Site licenses are available for those who wish to distribute the *EOU* throughout their firms. Contact our sales department at info@bvresources.com or 503-479-8200 ext. 2 for details. You can also reach us via email at customerservice@bvresources.com, phone at 503-479-8200, fax at 503-291-7955 or visit our website at www.BVResources.com.

ECONOMIC UPDATE AT A GLANCE (JULY 2022 SUMMARY)

The U.S. Leading Economic Index (LEI) fell 0.4% in July following a decrease of 0.7% in June. The index now stands at 116.6 points. The LEI was down 1.6% over the six-month period from January 2022 to July 2022; this is a downturn from its 1.6% growth in the previous six months. The Conference Board is now forecasting the US may avoid a recession in the third quarter of 2022 but experience a mild and short recession by the end of the fourth quarter of 2022 or in early 2023.

The Federal Open Market Committee (FOMC) met in July and voted to raise the federal funds rate to between 2.25% and 2.50%. The committee announced it will continue to reduce its holdings of Treasury securities and agency debt and agency mortgage-backed securities. Both actions are designed to restore inflation to its 2.0% objective.

The Chicago Fed's National Activity Index (CFNAI) rose in July, to +0.27 point. The figure for June was adjusted downward, from -0.19 to -0.25. All four broad categories of indicators used to construct the index made positive contributions in July, and all four categories improved from June.

The Consumer Confidence Index dropped for the third month running, by 2.7 points, from a revised June figure of 98.4 to 95.7 in July. It is at its lowest level since February 2021. The index's Present Situation Index, which measures consumers' assessment of current business and labor-market conditions, fell 6.1 points, to 141.3. The expectations component, which measures consumers' short-term outlook for income, business, and labor-market conditions, fell 0.3 point, to 65.3 points.

The Consumer Sentiment Index rose 1.5 points in July, to 51.5 points, up from the revised June score of 50.0. Consumers continue to be concerned about the current inflationary situation more than at any other time over the past 50 years aside from the recessions from 1979 to 1981 and in 2008. Following the decline, the index remains lower by 36.6% on a year-over-year basis.

The National Federation of Independent Business's (NFIB) Small Business Optimism Index rose to 89.9 in July, which is below its

Economic Summary July 2022

Change from previous month unless otherwise noted

Factor	Improve/ Worsen
Leading Economic Index	↓
National Activity Index	↑
Consumer Confidence	↓
Consumer Sentiment	↑
Small Business Optimism	↑
Total Retail Sales	→
Core Retail Sales	↑
Wholesale Trade	↑
Jobs Added	↑
Unemployment Rate	↑
Labor-Force Participation	↓
Hourly Earnings	↑
Workweek	→
Manufacturing PMI	↓
Services PMI	↑
Hospital PMI	↓
Industrial Production	↑
S&P 500 (Month)	↑
S&P 500 (YTD)	↓
Housing Starts	↓
Building Permits	↓
Housing Market Index	↓
Home Sales	↓
Home Values	↑
RCI Buyer Traffic Index	↓

Note: The green arrow signifies an improvement, the red arrow signifies a worsening, and the blue arrow signifies no change.

historical average of 98.0 points for the seventh consecutive month. The report noted that 37% of small-business owners reported "inflation was their single most important problem in operating their business." This is 3.0% higher than June and the highest since the fourth quarter of 1979.

MetLife and the U.S. Chamber of Commerce published their second-quarter 2022 survey in May. It climbed to its highest level since the start of the pandemic. The second-quarter score rose 2.7 points, to 66.8 points. Despite the rise, the score remains below prepandemic levels, such as when it was 71.7 points in the first quarter of 2020.

The survey highlighted three key findings for the quarter:

1. Two-thirds of small-business decision-makers say that their business is in good health. This is a five-point increase from the prior quarter and puts this metric on par with the last prepandemic reading.
2. Eighty-eight percent of respondents are concerned about the impact inflation may have on their business, and 44% consider inflation to be their biggest challenge; and
3. Approximately one-half of small-business owners are reportedly working more hours now than they were a year ago. This is a 20% increase over 2017 when this question was first posed and is a reflection of the complexity of issues small-business owners face in recent times.

The RSM U.S. Middle Market Business Index, published in May, reversed direction and rose 4.3 points in the second quarter, to 130.6 points, and is only three months removed from its record-high 143.7 in the third quarter of 2021. Despite inflationary pressures exacerbated by continued supply-chain disruptions and labor shortages, RSM reports strong demand and productivity.

Consumer spending continued at historically high levels as total retail sales held steady in July with advance estimates of total retail sales at $682.8 billion, which is 10.3% higher than July 2021. Sales at gasoline stations fell by 1.8% and fell by 1.6% at motor vehicle and parts dealers. On a year-over-year basis, retail trade sales were 10.1% higher than they were in June 2021. Nine of the 13 retail sales categories saw an increase in July. Core retail sales increased a 0.7% in July and are up 9.3% over the past 12 months.

E-commerce retail sales increased by 2.7% in the second quarter of 2022, to $257.3 billion, when compared to the first quarter of 2022. Over the past 12 months, e-commerce sales are up 6.8%.

In July, nonfarm payrolls exceeded all expectations by adding 528,000 jobs to the economy. The report in July also included revised figures for the prior two months, with a combined gain of 28,000 jobs.

Following the strong job numbers, the unemployment rate edged down to 3.5%, its lowest rate since the onset of the pandemic. The U6 unemployment rate held at 6.7%, also its lowest rate since the onset of the pandemic.

The four-week average of initial claims for unemployment insurance in the last week of July totaled 256,000. The four-week moving average was 249,250. Initial claims remain low when compared with long-term historical claims.

Wages increased 15 cents in July, to $32.27. Real average hourly earnings, seasonally adjusted from July 2021 to July 2022, increased $1.60, or 5.2%.

The manufacturing sector slowed again in July, as the Institute for Supply Management's manufacturing index (PMI) fell 0.2 percentage point, to 52.8%. The score indicates an expansion in the manufacturing economy for the 26th consecutive month. A reading above 50% indicates that the manufacturing economy is generally expanding, while a reading below 50% indicates that it is generally contracting. Over the past 12 months, the PMI has averaged 57.6%.

The Institute for Supply Management's Services PMI index, formerly referred to as NMI, improved in July, gaining 1.4 percentage points from its June 2022 score. Its score for July 2022, 56.7%, represented growth for the 26th consecutive month and remains at a strong level. Despite recent declines in this index, the Services PMI has remained in growth territory since the start of the coronavirus pandemic in March 2020 and April 2020, the only two periods of contraction in the last 150 months. Over the past 12 months, the Services PMI has averaged 60.2%. Thirteen of 18 nonmanufacturing sectors surveyed in July reported growth during the month.

US equities ended July in positive territory after a sharp downturn in June. The S&P 500 added 9.2%; the Dow Jones Industrial Average rose, by 6.8%; and the Nasdaq Composite grew 12.4% in July when compared to June. The Russell MidCap rose 9.9% in July and has fallen 13.8% year to date, and the Russell 2000 Index increased 10.4% in July and has fallen 15.4% year to date. Volatility eased in July, but the Chicago Board Options Exchange Volatility Index continued heightened levels in 2022. In July, the index ranged from 21.2 to 29.8, for a monthly average of 24.9, lower than the annual average of 26.2 for the first time in many months.

Consumer prices, as measured by the Consumer Price Index, were essentially flat in July after rising 1.3% in June. Following the monthly results, the annual rate rose 8.5%. The gasoline index fell 7.7% in July, which offset an increase in the food index, which rose 1.1% over the month. The food index has risen 10.9% over the last 12 months. Core CPI, which excludes food, energy, and trade prices, increased 0.3% in July, slightly less than the 0.4% rate for June. Core CPI is up 5.9% over the past 12 months, which is near its largest annual increase since August 1982.

In July, producer prices fell 0.5% after rising an adjusted 1.0% in June. Annually, PPI has increased 9.8%. Core PPI, which excludes highly volatile food and energy prices, rose 0.2% in July and is up 5.8% over the past 12 months.

Residential construction dropped 9.6% when compared to the adjusted June figure. A seasonally adjusted rate of 1.446 million units were started in July, which is 8.1% below one year ago. Single-family starts fell 10.1%. Multifamily starts added 514,000 buildings, 10% less when compared to the prior month. The number of building permits authorized, which measures how much construction is in the pipeline, fell 1.3% in July. On a year-over-year basis, the figure is up 1.1%. The number of building permits authorized dropped 4.3% for single-family homes. The number of multifamily buildings that were permitted in June was 693,000, an increase of 2.5% from June, and 26.2% more than a year ago.

Existing-home sales declined for the sixth consecutive month, after falling 5.9% in July. Prospective buyers continued to face rising interest rates and rising home prices in most markets. On a year-over-year basis, home sales fell 20.2%. The number of distressed home sales was less than 1.0% of sales in July. The NAHB/Wells Fargo Housing Marking Index (HMI) decreased 12.0 points, to 55.0 points. The report attributed the decline to the rising prices for materials and higher interest rates.

The National Association of Realtors' most recent "Commercial Market Insights," which analyzed the commercial real estate market in May, reported that the recovery in the commercial real estate market that started in the second half of 2021 and continued into the first quarter of 2022 is now mixed. All core commercial sectors, including the multifamily, office, industrial, and retail sectors, experienced net positive absorption during the last four months through May. Rents rose year over year by 9.7%, after rising at a double-digit pace in the second half of 2021. The commercial real estate market remains positive even amid rising interest rates and inflation.

All core commercial sectors—the multifamily, office, industrial, and retail—experienced net positive absorption during the last five months through May. As such, rents and property valuations continue to increase across the four core property markets. The apartment vacancy rate remains low, at 5.3%. Office occupancy continues to rise. The retail vacancy rate remained at 4.4%. Rising inflation and a slowing economy have taken some wind out of the recovery in the hotel sector. Hotel occupancy declined slightly in May 2022, to 65.1% from an adjusted 65.5% for April 2022.

INDEX OF LEADING INDICATORS

The Conference Board's Leading Economic Index (LEI) decreased by 0.4% in July following a decrease of 0.7% in June. The index now stands at 116.6 points. The July decrease reflected increased consumer pessimism, the volatile equity markets, cooling labor markets, and housing, as well as slower manufacturing orders. The LEI was down 1.6% over the six-month period from January 2022 to July 2022; this is a downturn from its 1.6% growth in the previous six months. The Conference Board is now forecasting the U.S. may avoid a recession in the third quarter of 2022 but experience a mild and short recession by the end of the fourth quarter of 2022 or in early 2023.

EXHIBIT 1: Historical Economic Data 2009-2021 and Forecasts 2022-2032

														CONSENSUS FORECASTS**						
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028-2032**
Real GDP*	-2.5	2.6	1.6	2.2	1.8	2.5	3.1	1.7	2.3	2.9	2.3	-3.4	5.7	2.1	1.0	1.8	2.2	2.0	1.9	1.9
Industrial production*	-11.5	5.5	2.9	2.8	2.0	3.1	-1.0	-2.0	1.3	3.2	-0.8	-7.2	4.9	4.9	1.1	1.6	2.2	2.0	1.7	1.7
Consumer spending*	-1.3	1.7	1.9	1.5	1.5	3.0	3.8	2.8	2.4	2.9	2.2	-3.8	7.9	2.5	1.1	1.8	2.1	2.1	2.0	2.0
Real disposable personal income*	-0.4	1.0	2.5	3.1	-1.4	4.0	4.1	1.8	2.8	3.4	2.3	6.2	2.3	-5.3	1.9	2.6	2.3	2.1	2.1	2.1
Business investment*	-14.5	4.5	8.7	9.5	4.1	6.9	1.8	0.7	4.1	6.4	4.3	-5.3	7.4	5.0	1.5	3.0	3.1	2.9	2.9	2.7
Nominal pretax corp. profits*	8.4	25.0	4.0	10.0	1.7	5.4	-2.8	-2.4	4.5	8.3	2.7	-5.2	25.0	2.7	0.4	2.4	6.0	4.7	4.2	4.0
Total government spending*	3.5	0.0	-3.1	-2.1	-2.4	-0.9	1.8	1.8	0.5	1.4	2.2	2.5	0.5	-1.0	1.0	NA	NA	NA	NA	NA
Consumer price inflation*	-0.4	1.6	3.2	2.1	1.5	1.6	0.1	1.3	2.1	2.4	1.8	1.2	4.7	7.9	3.7	2.4	2.4	2.5	2.4	2.3
Core PCE*						1.6	1.2	1.6	1.7	2.0	1.7	1.4	3.3	4.9	3.4	NA	NA	NA	NA	NA
3-month Treasury bill rate	0.2	0.1	0.1	0.1	0.1	0.0	0.2	0.5	1.4	2.4	1.5	0.1	0.1	3.1	3.1	2.5	2.6	2.6	2.5	2.5
10-year Treasury bond yield	3.3	3.2	2.8	1.8	2.4	2.5	2.2	2.5	2.8	2.7	1.9	0.9	1.6	3.3	3.2	3.2	3.4	3.4	3.3	3.3
Unemployment rate	9.3	9.6	8.9	8.1	7.4	6.2	5.3	4.9	4.4	3.9	3.7	8.1	5.4	3.7	4.2	NA	NA	NA	NA	NA
Housing starts (millions)	0.6	0.6	0.6	0.8	0.9	1.0	1.1	1.2	1.2	1.3	1.3	1.4	1.6	1.6	1.5	NA	NA	NA	NA	NA

Source of historical data: U.S. Department of Commerce, U.S. Department of Labor, U.S. Census Bureau and The Federal Reserve Board.

Source of forecasts: *Consensus Forecasts—USA*, July 2022.

Notes:
*Numbers are based on percent change from preceding period.

Historic consumer price inflation, unemployment rate, 3-month Treasury rate, and 10-year Treasury yield are the annual averages.

**Forecast numbers are based on percent change from preceding period (excludes unemployment rate, housing starts, 3-month Treasury rate, and 10-year Treasury yield). Consumer price inflation information is annual averages. The 2021 through 2026 forecasts for the 3-month Treasury rate and 10-year Treasury yield are for the end of each period. Forecasts for 2028-2032 signify the average for that period.

Consumer spending, also known as personal consumption expenditures, includes spending on services, durable, and nondurable goods. Business investment is also referred to as nonresidential fixed investment. Total government spending includes federal, state, and local government spending.

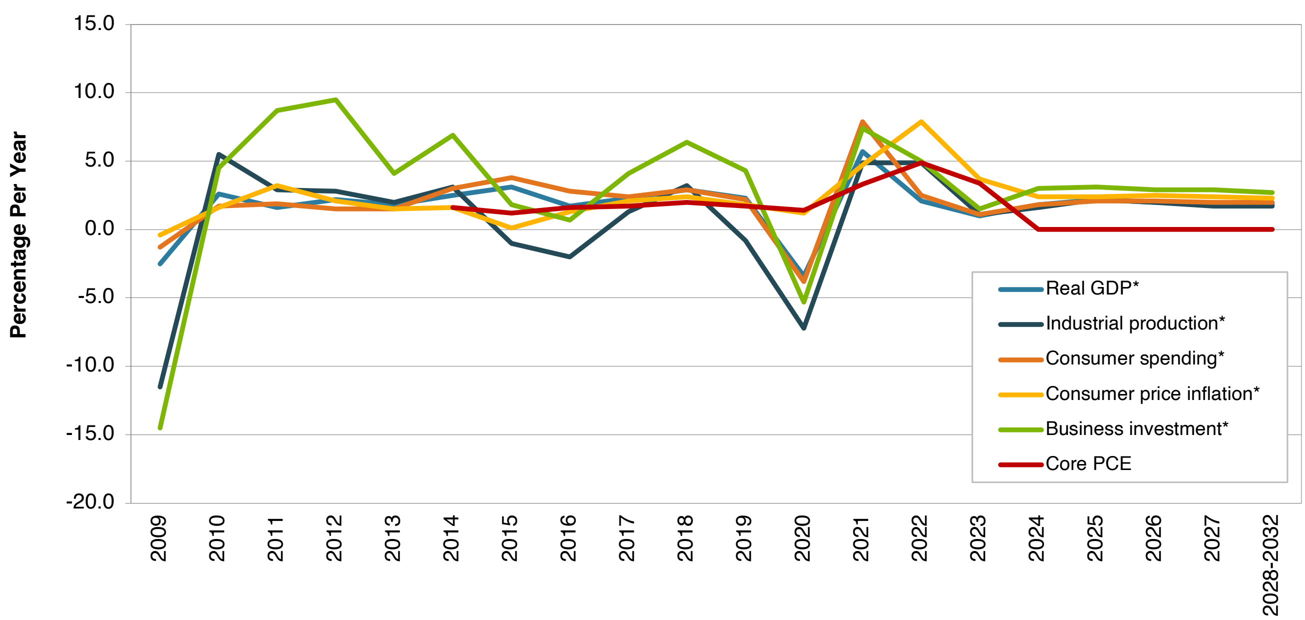
Every month, Consensus Economics surveys a panel of 30 prominent United States economic and financial forecasters for their predictions on a range of variables including future growth, inflation, current account and budget balances, and interest rates.

The board's coincident index, designed to reflect current economic conditions, increased 0.3% in July, to 108.6, following a 0.1% increase in June. The lagging index rose 0.4% in July, to 114.4.

The LEI is a leading American economic indicator intended to forecast future activity. The Conference Board, a nongovernmental organization, calculates the index from the values of 10 key variables:

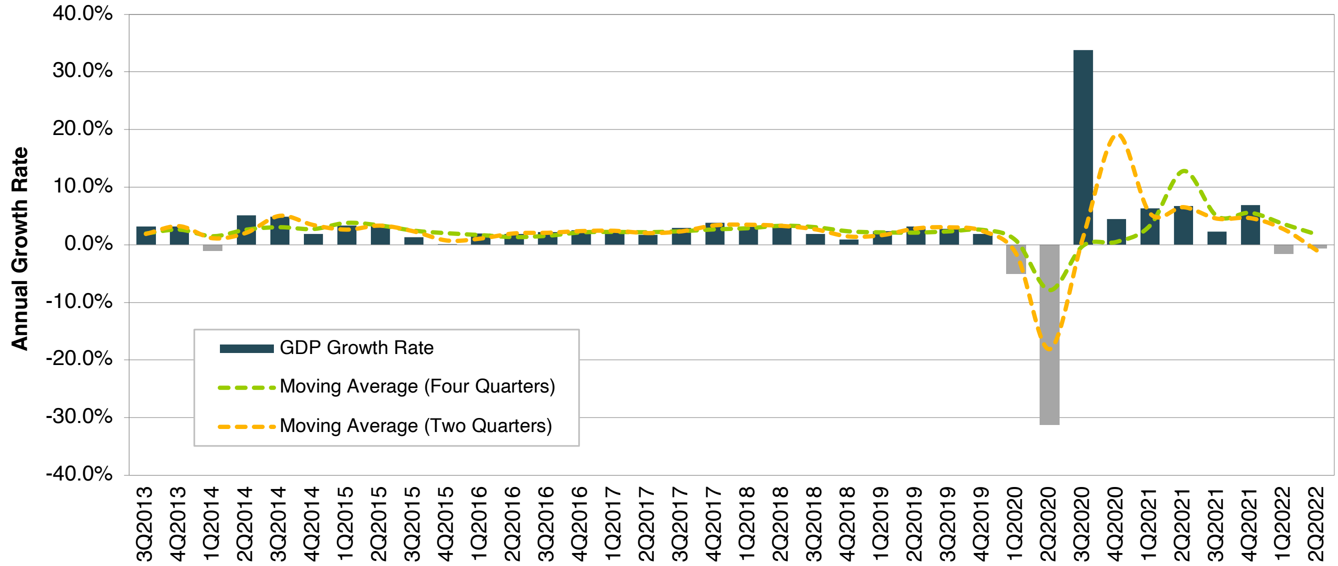
- Average weekly hours, manufacturing;
- Average weekly initial claims for unemployment insurance;
- Manufacturers' new orders, consumer goods and materials;
- Institute for Supply Management's Index of New Orders;
- Manufacturers' new orders, nondefense capital goods excluding aircraft orders;
- Building permits, new private housing units;
- Stock prices, 500 common stocks;
- Leading Credit Index;
- Interest rate spread, 10-year Treasury bonds less federal funds; and
- Average consumer expectations for business conditions.

EXHIBIT 2: Key Economic Variables Actual 2009-2021 and Forecast 2022-2032



Source of historical data: U.S. Department of Commerce, U.S. Department of Labor and The Federal Reserve Board.
Source of forecasts: Consensus Forecasts.
*Numbers are based on percent change from preceding period. Consumer price inflation information is annual averages.

EXHIBIT 3A: Real Gross Domestic Product and Moving Averages

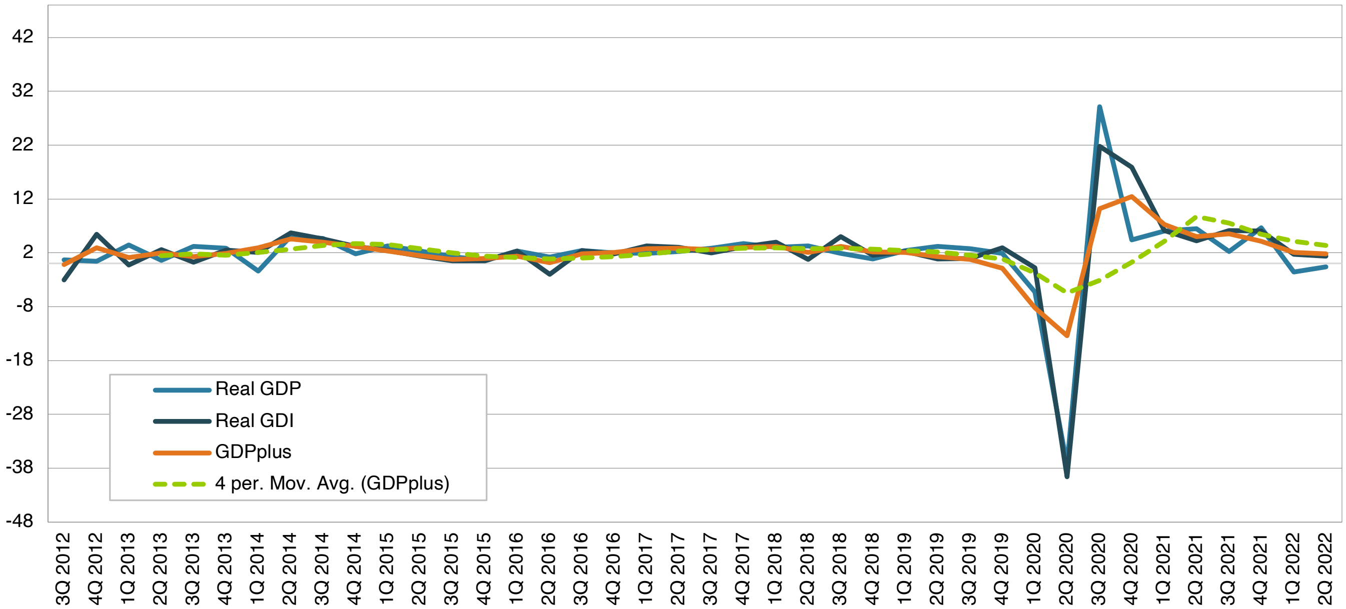


Source of data: U.S. Department of Commerce.

Note: Figures are seasonally adjusted at annual rates. As the U.S. Department of Commerce issues revised data, some historically reported figures may change.

EXHIBIT 3B: GDP Components—Contribution to GDP Rate

EXHIBIT 3C: GDPplus



Source of data: Federal Reserve Bank of Philadelphia.

The data measure the quarter-over-quarter growth rate in continuously compounded annualized percentage points. Shaded areas indicate NBER recessions.

INTEREST RATES

The Federal Open Market Committee (FOMC) met in July and issued a statement indicating spending and production have softened but that job gains continue to be robust and unemployment low in recent months. Inflation remains elevated due to pandemic-related supply-and-demand imbalances, higher food and energy prices, and broad price pressures. The statement also reports the invasion of Ukraine by Russia with its related events continues to create additional upward pressure on inflation and instability in global economic activity.

During the meeting held in July, the FOMC voted to raise the federal funds rate to between 2.25% and 2.50%. The federal funds rate is the interest rate at which a commercial bank lends immediately available funds in balances at the Federal Reserve to another commercial bank. The committee announced it will continue to reduce its holdings of Treasury securities and agency debt and agency mortgage-backed securities.

The committee also voted unanimously to approve an increase to the primary credit rate to 2.5%, an increase of 0.75%. The primary credit rate is the basic interest rate charged to most banks.

The FOMC will continue to monitor the implications of incoming information for the economic outlook and assess information related to public health, as well as global developments and inflation pressures, and will use its tools and act as appropriate to support the economy and return inflation to the committee's 2.0% objective.

CHICAGO FED NATIONAL ACTIVITY INDEX

The Chicago Fed's National Activity Index (CFNAI) rose in July, to +0.27 point. The figure for June was adjusted downward, from -0.19 to -0.25. All four broad categories of indicators used to construct the index made positive contributions in July, and all four categories improved from June.

The CFNAI Diffusion Index, which is also a three-month moving average, increased marginally, to -0.05 in July from -0.08 in June (adjusted downward from -0.04). Fifty-five of the 85 individual indicators made positive contributions to the CFNAI in July, while 30 made negative contributions. Fifty-five indicators improved from June to July, while 30 indicators deteriorated. Of the indicators that improved, 17 made negative contributions.

Production-related indicators led the overall index by contributing +0.16 to the CFNAI in July, up from -0.16 in June. Industrial production increased 0.7% after decreasing 0.4% in June. The contribution of the sales, orders, and inventories category to the CFNAI moved up to +0.01 in July from -0.06 in June.

Employment-related indicators contributed +0.09 to the CFNAI in July, up from a neutral value in June. Nonfarm payrolls increased by 528,000 in July after rising by 398,000 in June, and the unemployment rate dropped to 3.5% in July from 3.6% in the prior month. The contribution of the personal consumption and housing category to the CFNAI rose slightly, to +0.01 in July from an adjusted 0.00 in June.

The CFNAI was constructed using data available as of Aug. 18, 2022. At that time, July data for 51 of the 85 indicators had been published. For all missing data, estimates were used in constructing the index. The June monthly index value was revised to -0.25 from an initial estimate of -0.19, and the May monthly index value was revised to -0.29 from last month's estimate of -0.19. Revisions to the monthly index can be attributed to two main factors: revisions in previously published data and differences between the estimates of previously unavailable data and subsequently published data. The revisions to both June and May monthly index values were primarily due to the latter.

The National Activity Index is designed to gauge overall economic activity and related inflationary pressure and includes 85 economic indicators that are drawn from four broad categories of data: production and income; employment, unemployment, and hours; personal consumption and housing; and sales, orders, and inventories. Each of these data series measures some aspect of overall macroeconomic activity. The derived index provides a single, summary measure of a factor common to these national economic data. In the history of the data series, the lowest score, -17.86, was recorded in April 2020 and the highest score, 6.07, was recorded in June 2020.

EXHIBIT 4A: National Activity Index—Past 24 Months

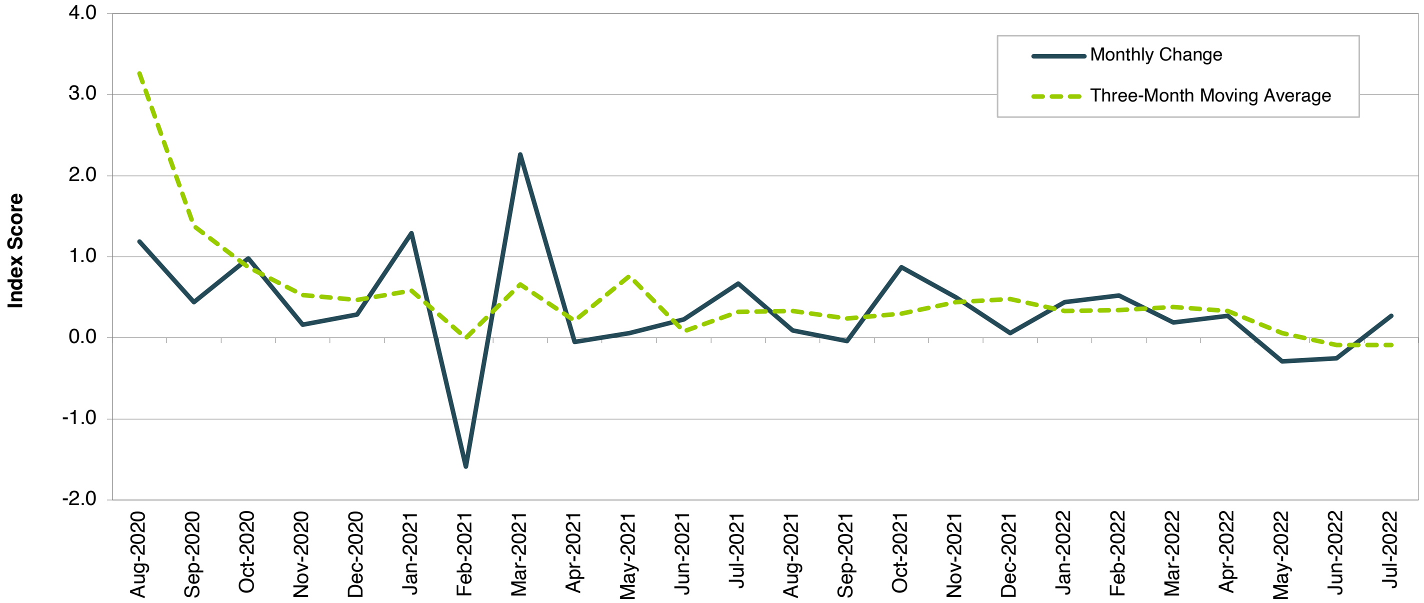
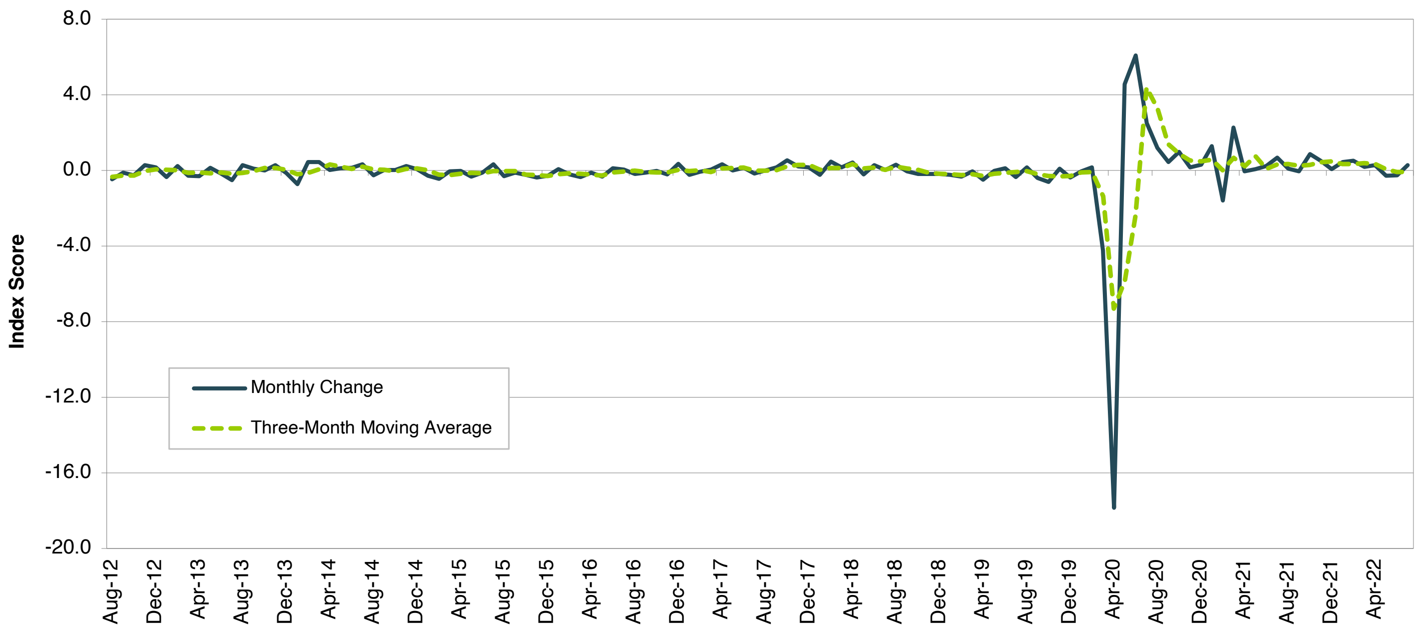


EXHIBIT 4B: National Activity Index—Monthly Change for the Last 10 Years



CONSUMER CONFIDENCE, CONSUMER SENTIMENT, AND SMALL-BUSINESS OPTIMISM

CONSUMER CONFIDENCE

The Consumer Confidence Index dropped for the third month running, by 2.7 points, from a revised June figure of 98.4 to 95.7 in July. It is at its lowest level since February 2021. The decline can be attributed to consumers' continued concerns about the impact of inflation on gasoline and food prices. The report mentioned that consumers' purchasing intentions for big-ticket items such as automobiles and major appliances have cooled. The July report states that the drop in the Present Situation Index is the primary driver of the decrease in overall consumer confidence. The Expectations Index held steady but remained at its lowest level in nearly a decade, suggesting an increased risk of recession ahead.

Consumers' appraisal of business conditions continued to erode in July and their perception of the labor market was less optimistic as indicated by the Conference Board's Present Situation Index, which fell 5.9 points in July, to 141.3 points. The index measures consumers' confidence in the present and near-term future economy. The percentage saying business conditions are "good" decreased, from 19.5% to 17.0%, and the percentage of those saying business conditions are "bad" increased, from 22.8% to 24.0%. Consumers' assessment of the labor market deteriorated in July, as the percentage of consumers stating jobs are "plentiful" declined, from 51.5% to 50.1%, and the percentage of those claiming jobs are "hard to get" increased to 12.3% in July from 11.6% in June.

Consumers' optimism about the short-term outlook dropped slightly in July, as the Expectations Index fell 0.5 point, to 65.3, from the revised June figure of 65.8. The survey results showed the percentage of consumers expecting business conditions to improve over the next six months was down, from an adjusted 14.6% to 14.0%, while the percentage of those expecting business conditions to worsen fell, from an adjusted 29.7% to 27.2%. Consumers' outlook for the labor market was mixed, as the percentage of those expecting more jobs in the months ahead decreased, from 15.9% to 15.7%, while those expecting fewer jobs in the months ahead fell, from 22.2% to 21.4%. The percentage of consumers expecting an improvement in their incomes fell, from 16.1% to 14.7%, while the percentage expecting a decrease rose slightly, from 15.3% to 15.7%.

The Consumer Confidence Index is an indicator designed to measure the degree of optimism about the state of the economy that consumers express through their savings and spending. A decreasing month-over-month trend in the Consumer Confidence Index suggests that consumers have a negative outlook about their ability to secure and retain good jobs, whereas a rising trend in consumer confidence indicates improvements in consumer buying patterns. Opinions on current conditions make up 40% of the index (the Present Situation Index), while expectations of future conditions comprise the remaining 60% (the Expectations Index).

CONSUMER SENTIMENT

The Thomson Reuters/University of Michigan's Consumer Sentiment Index was relatively unchanged in July, when it rose 1.5 points, to 51.5 points, from the revised June score of 50.0. The overall score for July is 3.0% higher on the month and 36.6% lower on a year-over-year basis. All components of the expectations index improved in July. Forty-nine percent of consumers who view their current financial position to be worse than it was a year ago cited inflation as the cause, up from 47% in June, and matching the historic high reached during the Great Recession.

The Index of Consumer Expectations fell 0.2 point, to 47.3 points, and is 40.1% lower than it was one year ago. The Index of Consumer Expectations focuses on three areas: how consumers view prospects for their own financial situation, how they view prospects for the general economy over the near term, and their view of prospects for the economy over the long term.

The Current Economic Conditions component, which measures how consumers feel about the economy right now, improved 4.3 points, to 58.1 points, and is 31.2% lower than it was one year ago.

The Thomson Reuters/University of Michigan's Survey of Consumers is a rotating panel survey based on a nationally representative sample that gives each household in the contiguous US an equal probability of being selected. Interviews are conducted by telephone throughout the month. The Index of Consumer Sentiment is composed of the Expectations Index and the Current Conditions Index and is intended to gauge how consumers feel the economic environment will change. The survey's Index of Consumer Expectations is an official component of the U.S. Leading Economic Index.

SMALL-BUSINESS OPTIMISM

The National Federation of Independent Business's (NFIB) Small Business Optimism Index remained below its historical average of 98.0 points for the seventh consecutive month even though the score rose by 0.4 point in July, to 89.9 points. Thirty-seven percent of small-business owners reported "inflation was their single most important problem in operating their business." This is 3.0% higher than June and the highest since the fourth quarter of 1979.

In July, six of 10 components that make up the Small Business Optimism Index worsened, and four improved.

The component that measures the frequency of reports of positive profit trends dropped to a net -26%. Among owners reporting lower profits, 17% blamed weaker sales, 40% cited a rise in the cost of materials, 10% reported lower prices, 4% cited seasonal change, while 2% reported higher taxes or regulatory costs.

The report continues to highlight the struggles that small businesses are having to fill open positions and points to a tight job market overall in July. Overall, 49% reported job openings they were unable to fill in July, one percentage point lower than in June. Owners have plans to fill open positions, with a seasonally adjusted net 20% planning to create new jobs in the next three months, up one point from June. Finding qualified employees remains a problem, as 57% of owners reported few or no "qualified" applicants for the positions they were trying to fill in July, a three-percentage-point decrease from the prior month. Where there are open positions, labor quality remains a problem. Thirty percent of owners reported few qualified applicants for their open positions, and 27% reported none. The report states "the current level of openings is over 20 percentage points higher than the historical average." Difficulty in filling open positions is the greatest in the construction, manufacturing, transportation, and wholesale sectors.

In July, the percentage of owners that made capital outlays in the last six months is unchanged from June, at 51%. Of those making expenditures, 36% spent on new equipment, 21% acquired vehicles, and 14% improved or expanded facilities. Five percent of owners acquired new buildings or land for expansion, and 9% spent money on new fixtures and furniture. Twenty-two percent of owners plan capital outlays in the next few months, which is down one percentage point from June. More investment will be needed to enhance productivity but unlikely given business owners' view for the future of the economy and economic policy.

Seasonally adjusted, a net -5% of all owners reported higher nominal sales in the past three months, which is up three percentage points from June. The net percentage of owners expecting higher real sales volumes decreased by 1.0 percentage point, to -29%. Thirty-two percent of owners report supply-chain disruptions have had a significant impact on their business, 7% lower than June. Another 36% report a moderate impact, 23% report a mild impact, while 9% experienced no impact from recent supply-chain disruptions.

The net percentage of owners reporting inventory increases rose five percentage points, to a net 1.0%. Owners viewing current inventory stocks as "too low" dropped three percentage points in July, to a net 2%. A net 1% of owners plan inventory investment in the coming months, which is down three percentage points from June.

The net percentage of owners raising average selling prices fell seven percentage points, to a net 56%, and 8% reported lower selling prices. Price hikes were most frequently reported in wholesale, at 80%, followed by manufacturing, at 72%; construction, at 73%; and retail, at 72%. Seasonally adjusted, a net 37% plan price hikes, down 12 points from the prior month.

A net 48% of owners reported raising compensation, which is the same as in June. A net 25% plan to do so in the coming months, three percentage points lower than in June. Nine percent of owners cited labor costs as their top business problem, up one point from June, and 21% said that labor quality was their top business problem, down two points from last month.

Only 3% of owners reported that all their borrowing needs were not satisfied, which is two points higher than reported in June. Twenty-five percent reported all credit needs met, down 2%, and 62% said they were not interested in a loan, up 1% from last month. A net 5% of owners reported their last loan was harder to get than in previous attempts, two percentage points higher than in June. One percent reported that financing was their top business problem. A net 19% of owners reported higher interest rates on their most recent loan, an increase of three percentage points over June.

The Small Business Optimism Index is compiled from a survey of the NFIB's 350,000 members that is conducted each month. NFIB, founded in 1943, began conducting its survey quarterly in 1974, transitioning to a monthly survey in 1986. The index is a composite of 10 seasonally adjusted components based on questions about the following: plans to increase employment, plans to make capital outlays, plans to increase inventories, whether members expect the economy to improve, whether they expect real sales will be higher, current inventory, current job openings, expected credit conditions, whether now is a good time to expand, and earnings trends. Analysts watch the index because small businesses are responsible for most of the new job creation and the NFIB focuses on this sector of the economy.

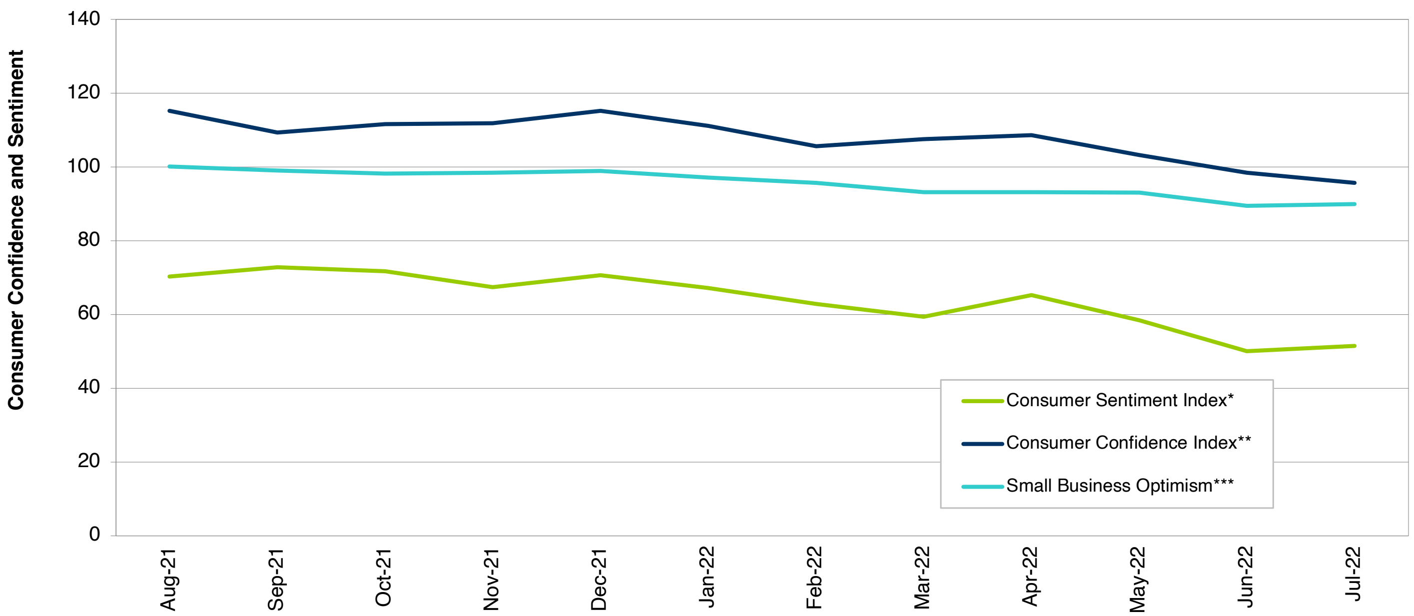
MetLife and the U.S. Chamber of Commerce published their second-quarter 2022 Small Business Index in May, which reported its highest score since the start of the pandemic, after rising 2.7 points. The second-quarter 2022 index stands at 66.8 and is significantly higher than it was when the coronavirus outbreak began, at 39.5%, but remains lower than its prepandemic levels. The second-quarter survey listed the underlying challenges for the upcoming quarter as inflation and supply-chain issues. Sixty-eight percent of respondents are still concerned about the impact of COVID-19 on their businesses, but its impact is ranked third behind concerns over inflation and the supply chain.

When asked about inflationary matters, 44% of small-business owners cite inflation costs as the primary concern facing the small-business community, an 11-percentage-point increase from last quarter. Almost 90% of respondents indicated they are concerned about the impact of inflation on their business, while almost half said they are very concerned, up from 44% in the first quarter of 2022.

Overall, small-business owners remain optimistic about their day-to-day operations, bolstered by future expectations for the economy and business environment. Optimism around cash flow has softened, however, fueled by concerns related to rising interest rates. There are some indications of anxiety even though small businesses are doing well.

Fifty percent of small-business owners report they are working more hours now than a year ago. This is a 20% increase over five years ago when this question was first included in the survey and indicative of the complexities facing small-business owners today.

EXHIBIT 5A: Consumer Confidence and Small Business Optimism—One Year



Sources of data: The Conference Board, Thomson Reuters/University of Michigan, National Federation of Independent Business, MetLife, U.S. Chamber of Commerce.
* Thomson Reuters/University of Michigan Index of Consumer Sentiment
** The Conference Board Consumer Confidence Index®
*** National Federation of Independent Business Small Business Optimism Index
**** MetLife and U.S. Chamber of Commerce Small Business Index

EXHIBIT 5B: Consumer Confidence and Small Business Optimism—10 Years

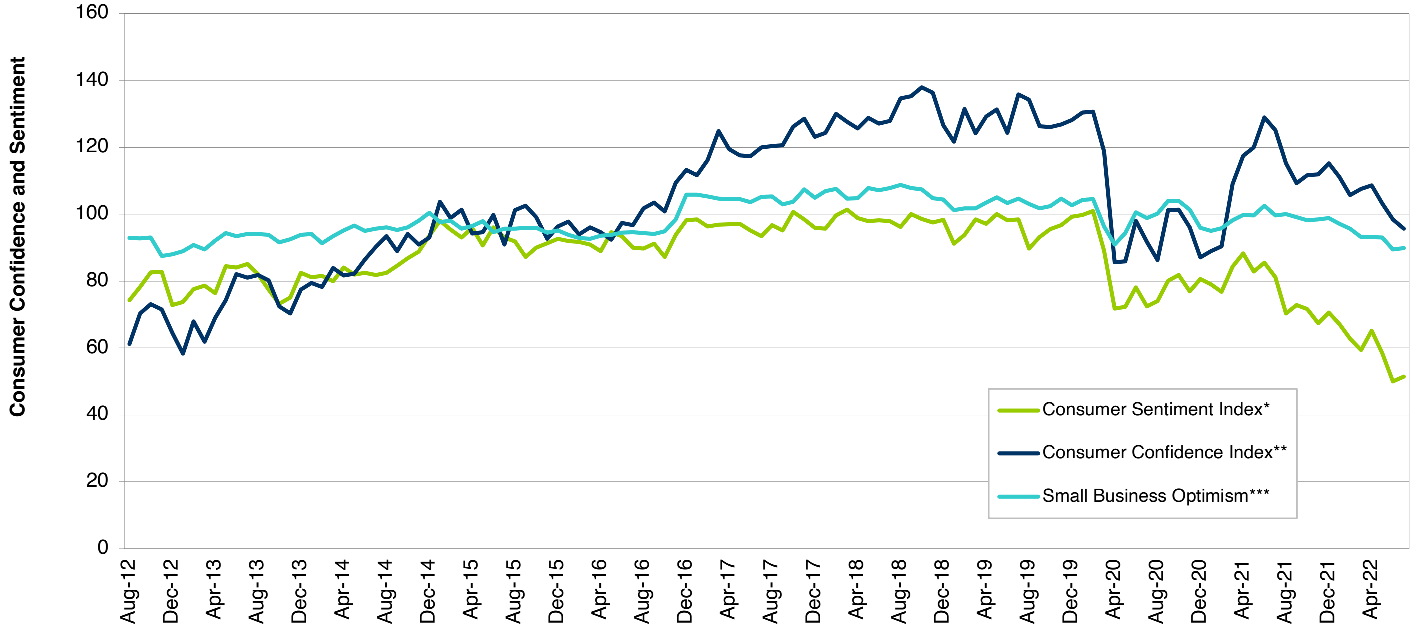
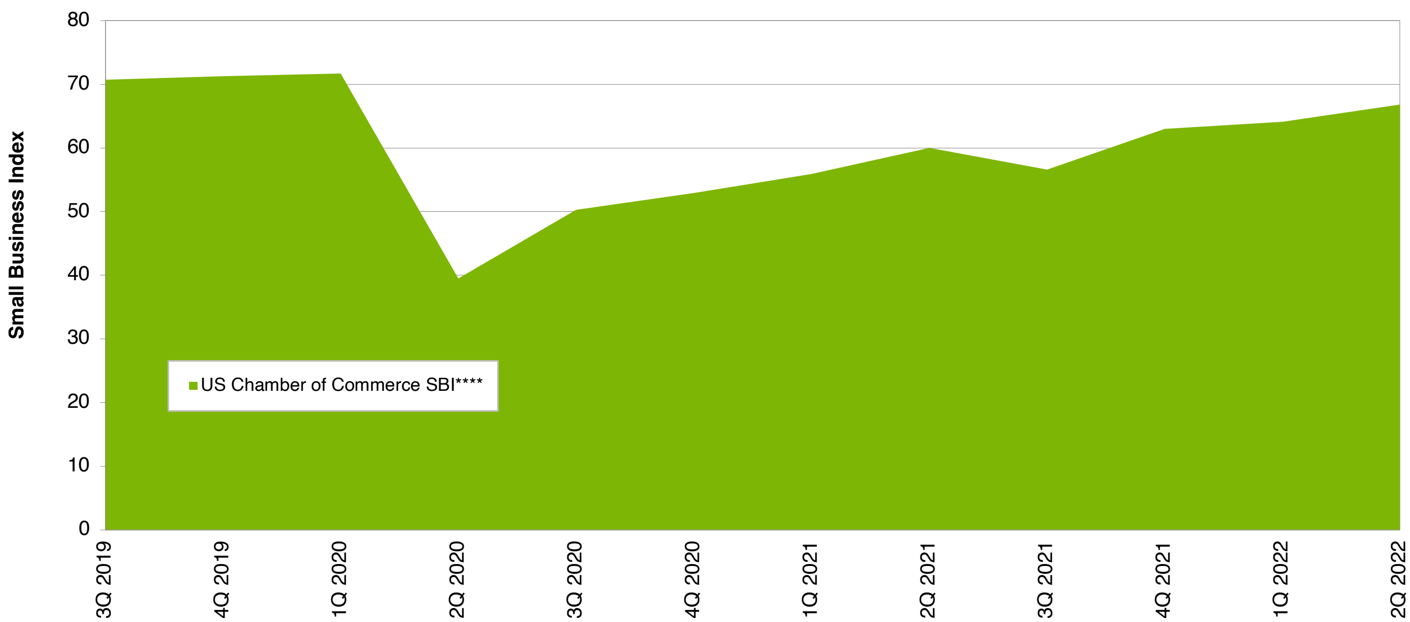


EXHIBIT 5C: MetLife and U.S. Chamber of Commerce Small Business Index—Prior 12 Quarters



Sources of data: The Conference Board, Thomson Reuters/University of Michigan, National Federation of Independent Business, MetLife, U.S. Chamber of Commerce.

* Thomson Reuters/University of Michigan Index of Consumer Sentiment

** The Conference Board Consumer Confidence Index®

*** National Federation of Independent Business Small Business Optimism Index

**** MetLife and U.S. Chamber of Commerce Small Business Index

MIDDLE MARKET BUSINESS INDEX

The RSM U.S. Middle Market Business Index (MMBI) reversed direction and rose 4.3 points, to 130.6, in the second quarter of 2022. Despite inflationary pressures, RSM reports strong demand and productivity, both of which enhanced business investment and augmented the real economy.

The second-quarter report, issued in June and reported on in the May *EOU,* continues to indicate that businesses and employers are primarily concerned with inflationary pressures that continued supply-chain disruptions and difficulties resolving labor shortages exacerbated. As a result, only 32% of respondents believed that the economy has improved in the current quarter, while 41% said that the economy had deteriorated. Looking forward, however, 42% of those surveyed expect the economy to improve over the next six months, better than the 37% who expect it to worsen over the same period.

Forty-four percent of respondents stated that gross revenues were improving compared to 22% who said they did not. Going forward, 58% of middle-market executives expect their revenues to improve over the next six months and 10% expect them to decline. When asked about net earnings performance, 41% reported increases in the current quarter and 56% expect earnings to increase going forward compared with 16% who expect declines in net earnings. Despite the increase in revenues and earnings, 74% of firms reported paying a higher price for their goods and 78% expect this trend to continue in the coming quarters. Sixty-six percent of middle-market businesses passed along their higher costs to their customers, and 75% plan to do so in the next six months.

When asked about matters regarding capital expenditures, 42% of respondents indicated an increase in their capital expenditures and 51% expect an increase going forward. Among the items middle-market businesses are spending on, 39% reported an increase in inventories and 47% expect to do so in the coming quarters. Additionally, 47% reported an increase in hiring and 62% reported an increase in compensation. Going forward, 61% have plans to hire in the coming months and 67% will increase pay to attract labor.

The special question in this quarter's survey focused on supply-chain disruptions. Unexpected disruptions in supplies from upstream suppliers negatively impacted the organizations of 48% of the respondents to the survey. Sixty-four percent of businesses with $10 million to $50 million in revenue felt the impacts more acutely, as compared with 36% of businesses with revenues up to $1 billion. It is noteworthy that 70% of respondents who felt the negative effects of unexpected supply-chain disruptions found other sources within the US during the last 12 months.

The RSM U.S. Middle Market Business Index (MMBI) is based on quarterly survey data RSM U.S. LLP and Nielsen N.V. collected and is developed in partnership with Moody's Analytics. The MMBI survey and data began in the first quarter of 2015, and the survey panel consists of 1,500 middle-market executives. An MMBI reading above 100 generally indicates that the middle market is expanding, and a reading below 100 generally indicates that the middle market is contracting. The most recent survey results are based on responses 404 survey participants provided.

RETAIL SALES AND WHOLESALE INVENTORY, SALES, AND TRADE

RETAIL SALES

Consumer spending continued at historically high levels as total retail sales held steady in July with advance estimates of total retail sales at $682.8 billion, which is 10.3% higher than July 2021. The report noted retail trade sales were virtually unchanged from June 2022 and are 10.1% more than a year ago. Economists view retail sales as a key economic indicator since consumer spending accounts for nearly two-thirds of the U.S. economy.

Nine of the 13 major categories in the “Advance Monthly Retail Trade Report,” which highlights sales figures across most retail categories, had higher sales in July. Of note, sales at nonstore retailers rose by 2.7%, at miscellaneous store retailers by 1.5%, and at building material and garden equipment and supplies dealers by 1.5%. Sales at gasoline stations fell by 1.8% and fell by 1.6% at motor vehicle and parts dealers.

Retail sales figures including food services over the past 12 months increased 10.3%. All but one of the 13 retail categories had an increase in sales, with sales at gasoline stations up 39.9%; sales at nonstore retailers up 20.2%; sales at miscellaneous store retailers growing 17.8%; and sales at food services and drinking places rising 11.6%. Sales at electronics and appliance stores fell 9.9% year over year.

Core retail sales increased 0.7% in July. The core retail sales figure excludes sales of automobiles, gasoline, building materials, and food services and corresponds most closely with the consumer-spending component of gross domestic product. Over the past 12 months, core retail sales have risen 9.3%.

E-commerce retail sales increased in the second quarter of 2022 when compared to the first quarter of 2022. Online sales were at $257.3 billion in the second quarter of 2022, or roughly 2.7% higher than the $250.4 billion reported in the first quarter of 2022. Over the past 12 months, e-commerce sales are up roughly 6.8%.

As a percentage of overall retail sales, e-commerce retail sales in the second quarter of 2022 totaled 14.5%, 0.2 percentage point higher than the figure from the first quarter of 2022, and the same as the rate from one year ago.

WHOLESALE TRADE

Wholesale trade increased 1.8% in June compared to May and was up 20.4% from one year ago. In June, sales of merchant wholesalers, except manufacturers’ sales branches and offices, after adjustment for seasonal variations and trading-day differences but not for price changes, were $709.6 billion.

Total inventories of merchant wholesalers, except manufacturers’ sales branches and offices, after adjustment for seasonal variations and trading-day differences but not for price changes, were $895.4 billion at the end of June, which is up 1.8% from the revised May level and 25.5% from one year ago.

The inventory-to-sales ratio came in at 1.26x in June, which is the same as in May, and higher than the 1.21x ratio for June 2021.

EXHIBIT 6A: Total Retail Sales—Past 24 Months

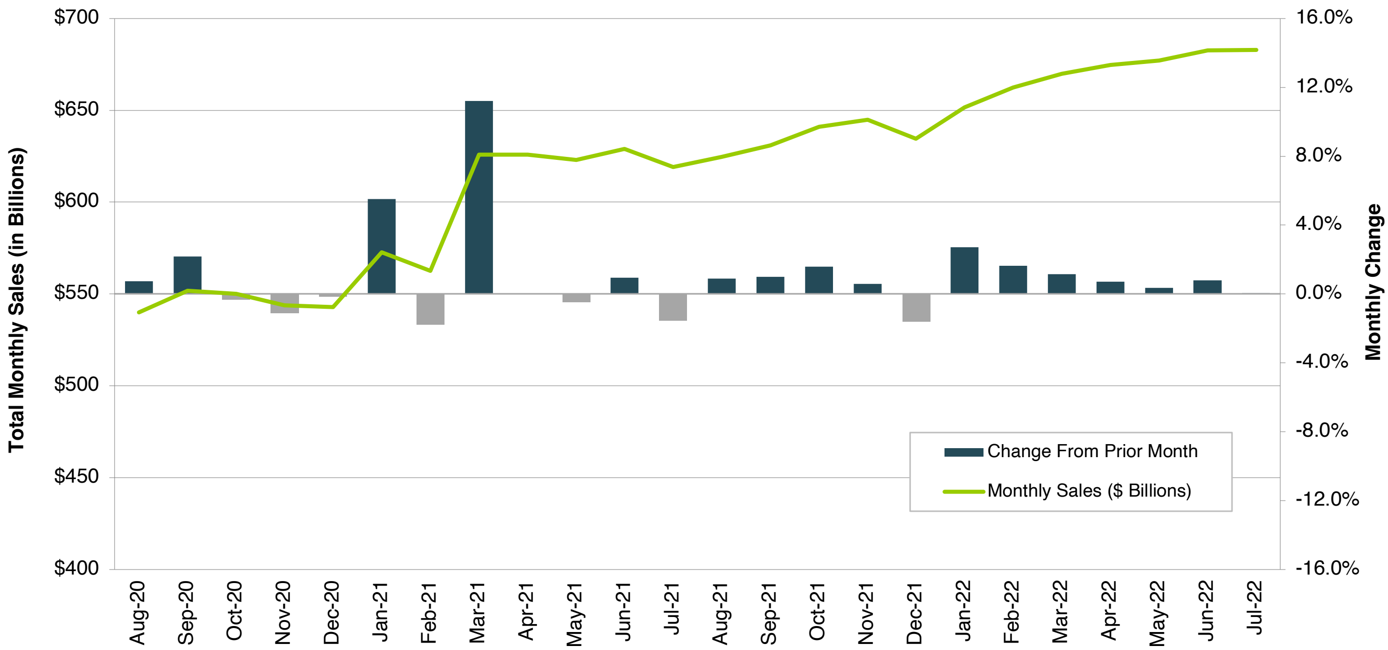
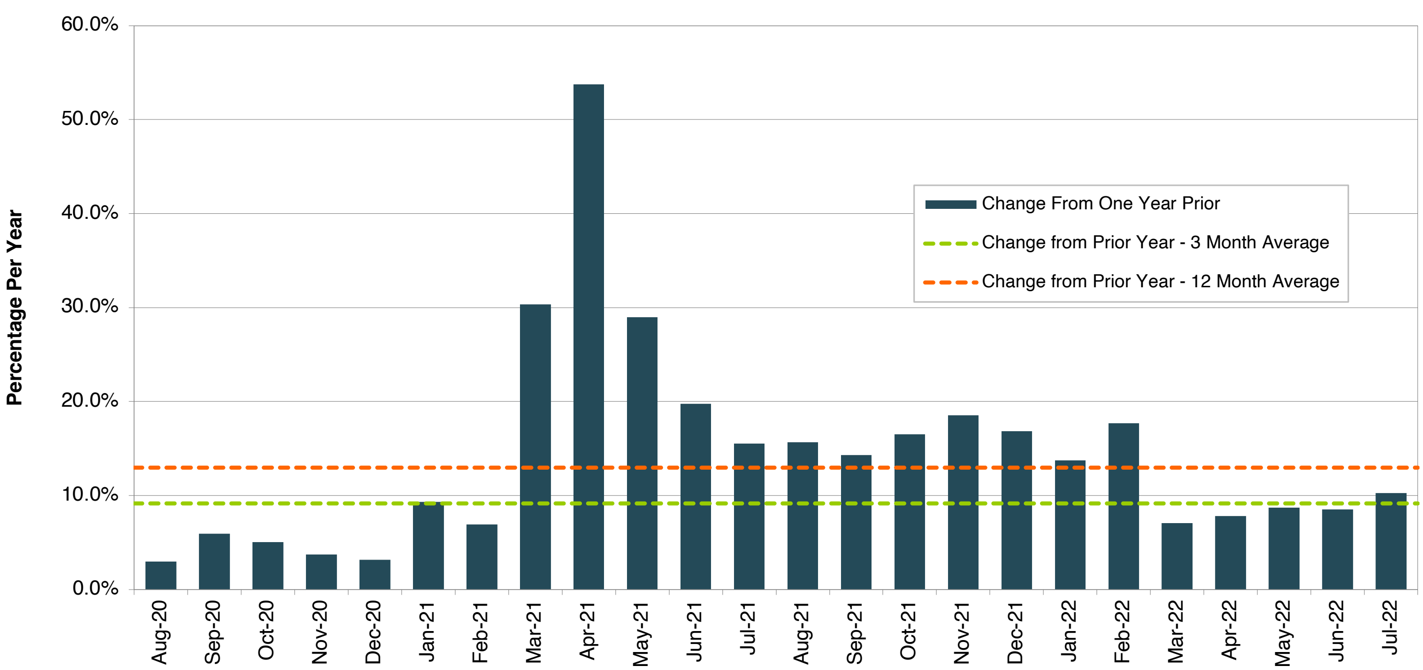


EXHIBIT 6B: Total Retail Sales Change From One Year Prior—Past 24 Months With Averages



Source of data: U.S. Department of Commerce.
Note: Monthly retail and food services sales are seasonally adjusted.

EXHIBIT 6C: Total Retail Sales—Monthly Change Since 2012

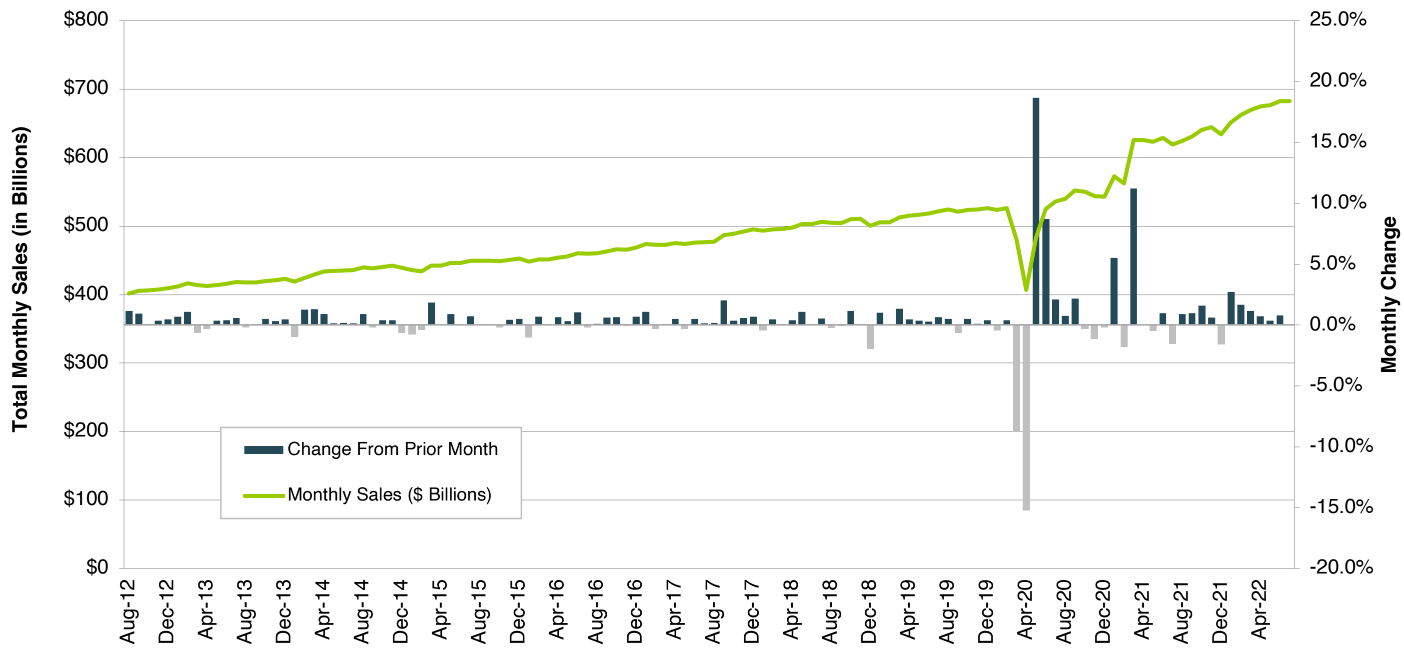
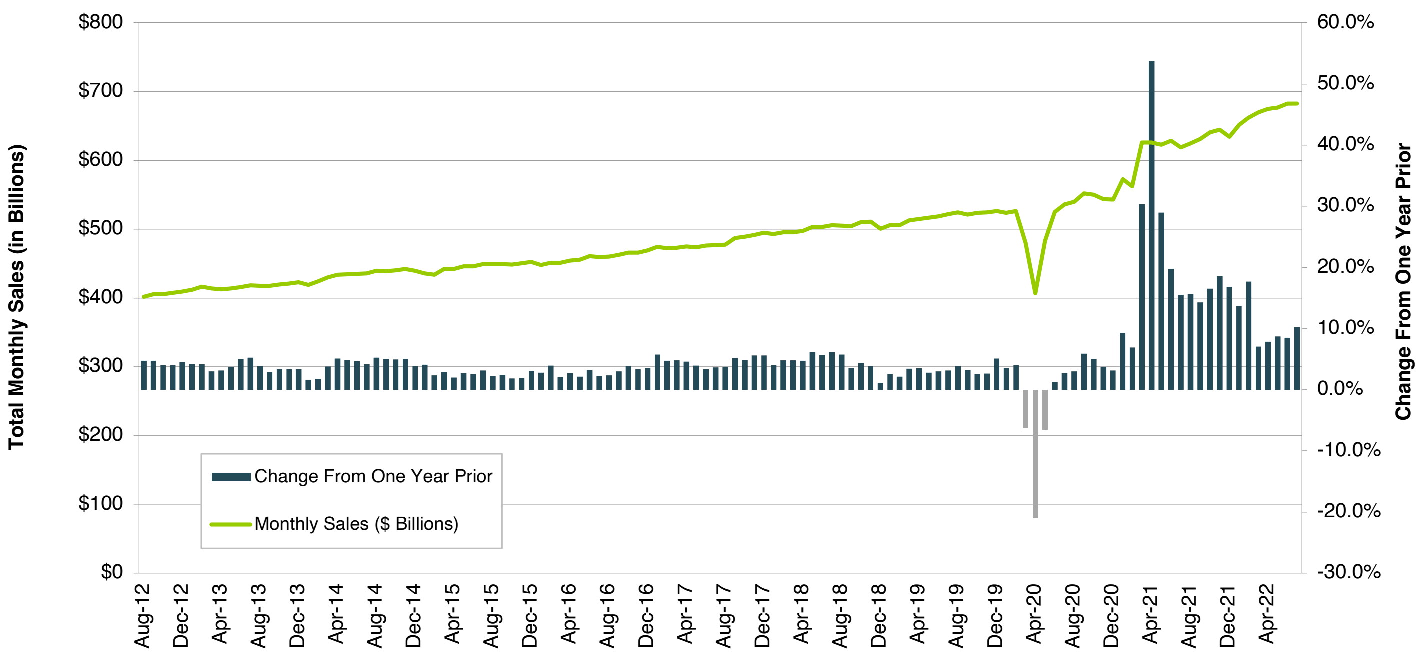


EXHIBIT 6D: Total Retail Sales—Percentage Change From One Year Prior Since 2012



Source of data: U.S. Department of Commerce.
Note: Monthly retail and food services sales are seasonally adjusted.

EXHIBIT 6E: E-Commerce Retail Sales 20 Quarters

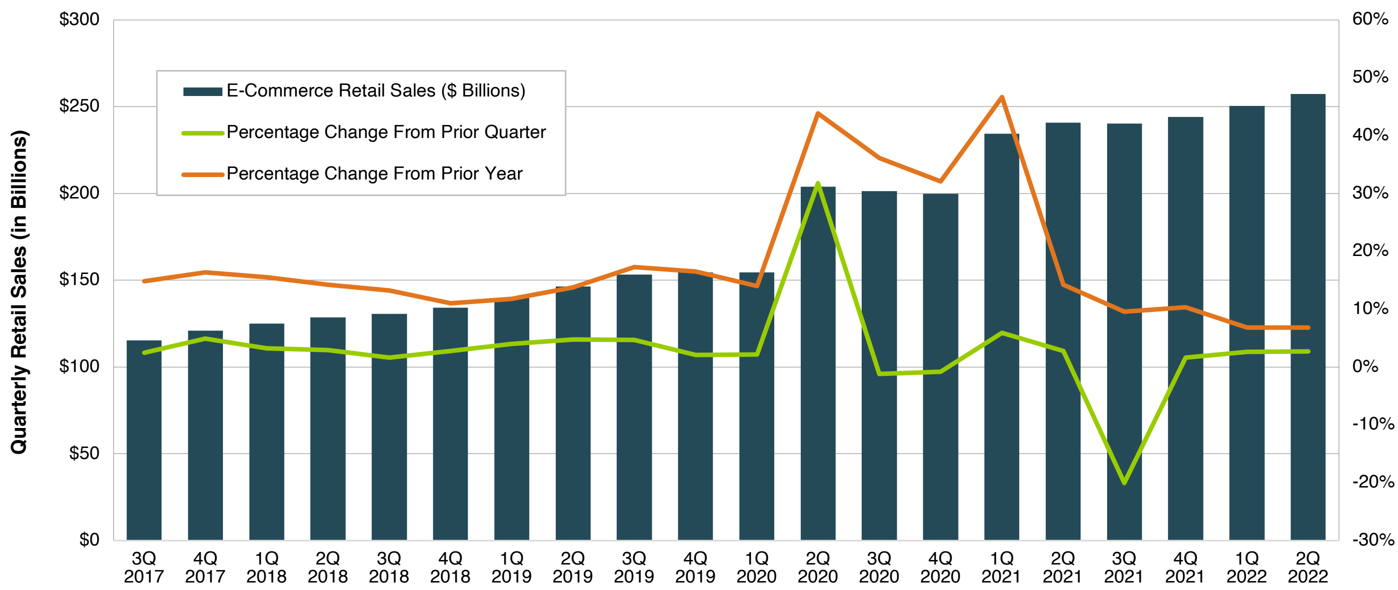
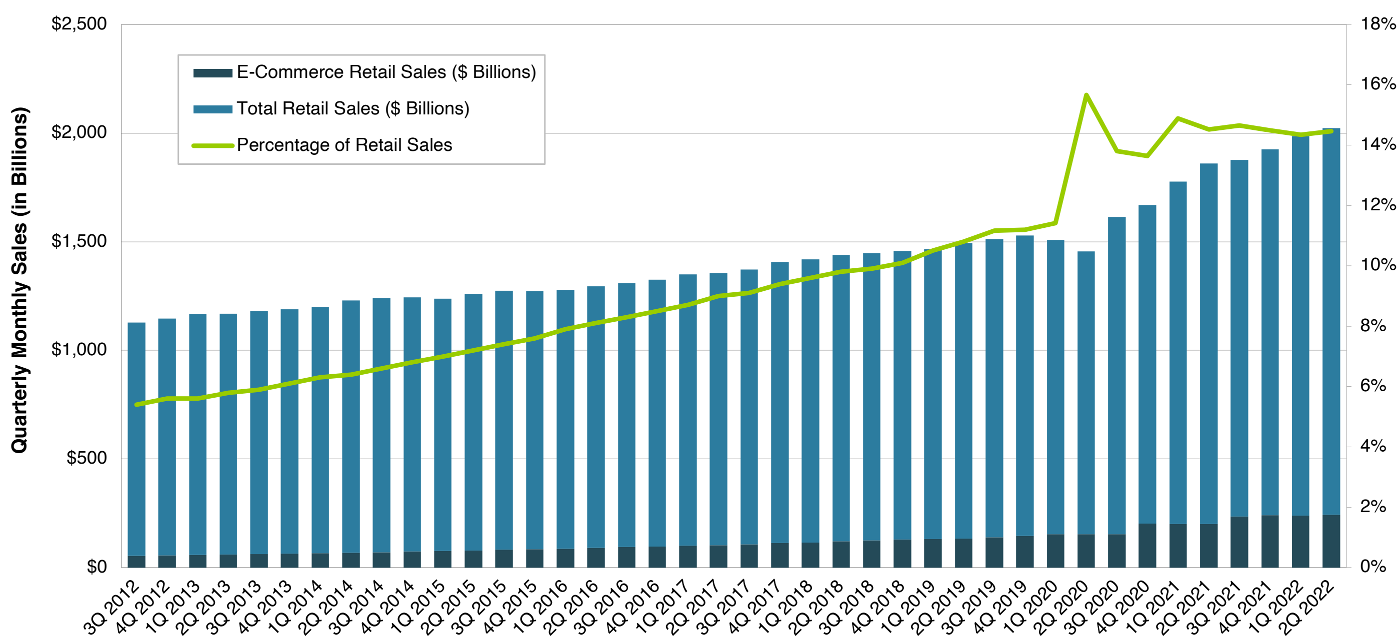


EXHIBIT 6F: E-Commerce Retail Sales Compared to Retail Sales 10 Years



Source of data: U.S. Department of Commerce.

EXHIBIT 6G: Total Monthly Sales of Merchant Wholesalers—Past 24 Months

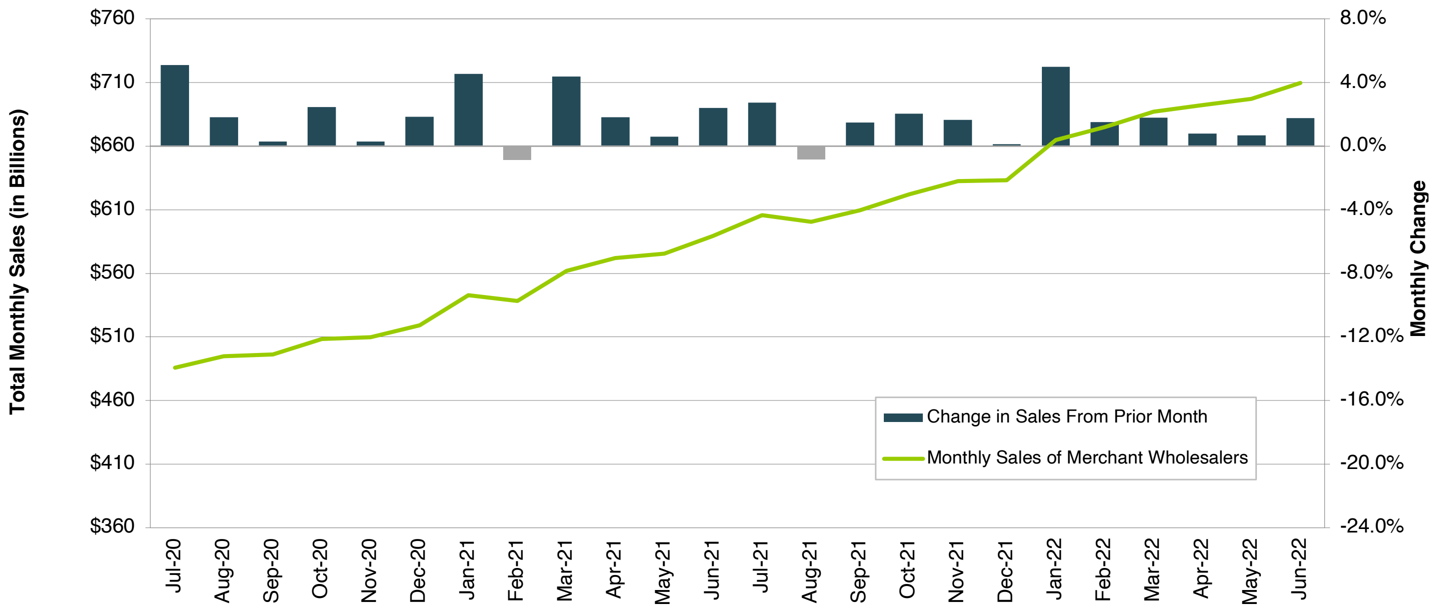
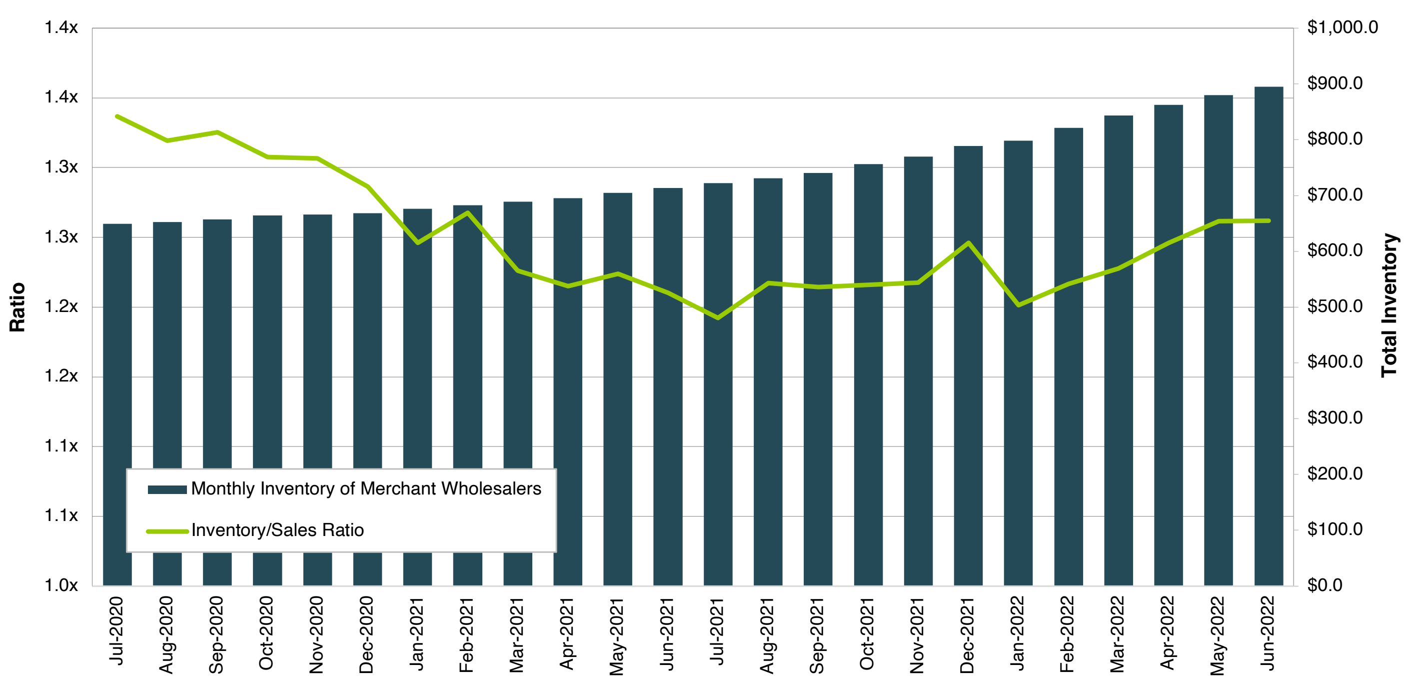
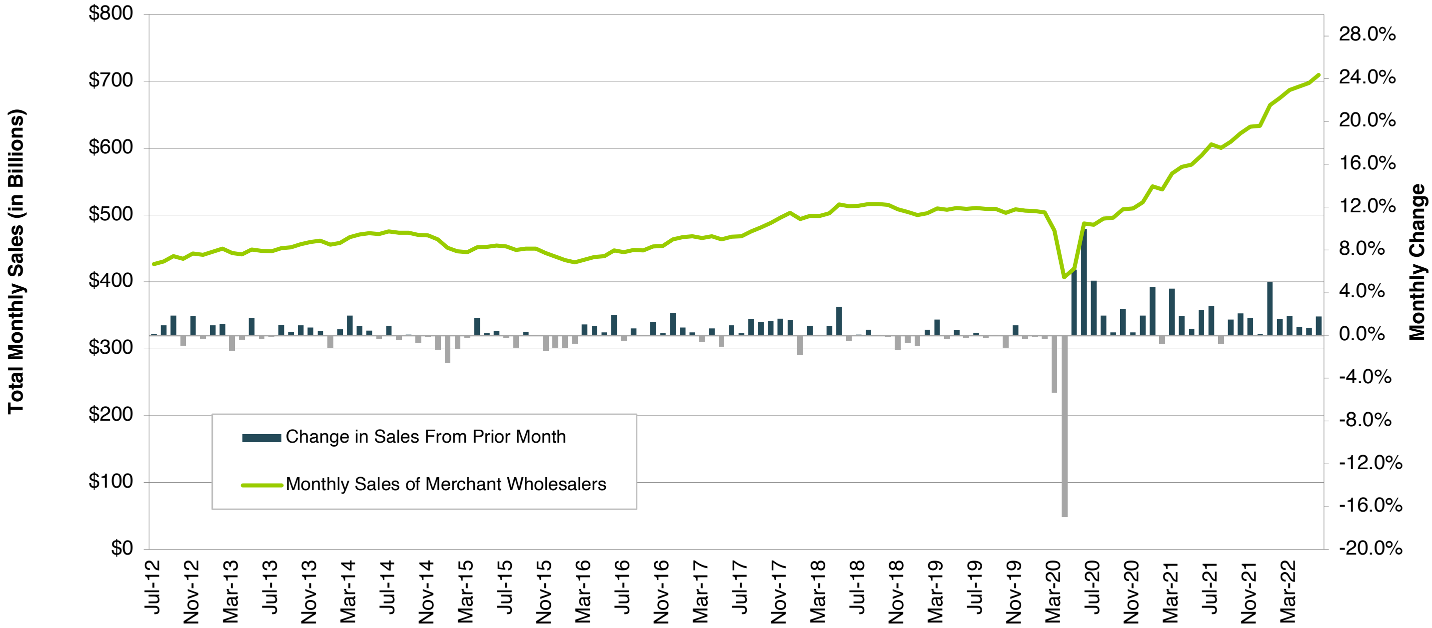


EXHIBIT 6H: Monthly Inventory-to-Sales Ratio of Merchant Wholesalers—Past 24 Months



Source of data: U.S. Department of Commerce.
Notes: Monthly retail and food services sale are seasonally adjusted. Wholesale data are available as of June 2022.

EXHIBIT 6I: Total Monthly Sales of Merchant Wholesalers—Past 10 Years



Source of data: U.S. Department of Commerce.
Notes: Monthly retail and food services sale are seasonally adjusted. Wholesale data are available as of June 2022.

UNEMPLOYMENT

The U.S. economy added 528,000 jobs to the labor market, blasting past gains of 258,000 jobs forecast by Dow Jones, according to a CNBC report citing Bureau of Labor Statistics' data. Job growth was widespread, let by gains in leisure and hospitality, professional and business services, and healthcare. Both total nonfarm employment and the unemployment rate have returned to their February 2020 prepandemic levels. In addition, the report contained revisions to job figures from the prior two months, with gains in May of 386,000 jobs and gains in June of 398,000, a total of 28,000 more jobs than previously reported.

In July, the share of employed persons who teleworked because of the coronavirus pandemic held at 7.1%. These data refer to employed persons who teleworked or worked at home for pay at some point in the last four weeks specifically because of the pandemic. In July, 2.2 million persons reported that they had been unable to work because their employer closed or lost business due to the pandemic—that is, they did not work at all or worked fewer hours at some point in the last four weeks due to the pandemic, which is up from 2.1 million persons in June.

Among those who reported in June that they were unable to work because of pandemic-related closures or lost business, 25.0% received at least some pay from their employer for the hours not worked, which is only slightly higher than the prior month. Among those not in the labor force in July, 548,000 persons were prevented from looking for work due to the pandemic. This figure is down from 610,000 in June.

Among the unemployed, the number of permanent job losers remained at 1.2 million in July. The number of persons on temporary layoff fell on the month, to 791,000, which is 36,000 fewer than June.

Employment in the leisure and hospitality sector increased by 96,000 jobs but remains 1.2 million jobs lower than it was in February 2020. Employment in the professional and business services sector continued its upward trend, adding 89,000 jobs, and is higher than it was in February 2020 by 986,000 jobs. Employment in the retail trade sector added 20,000 jobs and is higher than it was in February 2020 by 208,000 jobs. The manufacturing sector added 29,000 jobs in June, reaching its February 2020 level. Transportation and warehousing gained 21,000 jobs and continues to be significantly above its February 2020 level. Construction added 32,000 jobs in July and is 82,000 jobs higher than the prepandemic levels in February 2020.

The report found that labor-force participation fell slightly, by 0.1 percentage point, in July, to 62.1%, and is 1.3 percentage points lower than its 63.4% rate in February 2020. The employment-population ratio, which is the share of the working-age population with a job, rose slightly, by 0.1 percentage point, in July, to 60.0%, but is 1.2 percentage points below its 61.2% level from February 2020.

The number of long-term unemployed (those jobless for 27 weeks or more) declined by 269,000, to 1.1 million, and represents 18.9% of all unemployed persons in July. The figure has returned to its February 2020 level.

The U3 unemployment rate ticked down to 3.5% from June to July and is the lowest since the start of the coronavirus pandemic.

The broadest measure of labor underutilization, the U6 unemployment rate, held steady in July, at a seasonally adjusted 6.7%. This is the lowest rate recorded since the beginning of the pandemic. The U6 unemployment rate had continually improved after hitting the highest level on record, 22.8%, in April 2020, until it hit 6.7% in June 2022. U6 unemployment is broader than U3 and includes “marginally attached workers” and people who are looking for and want full-time work but have settled for part-time employment. Marginally attached workers are people who are not actively looking for work but have indicated they want a job and have looked for work (without success) sometime in the past 12 months. This class also includes “discouraged workers,” those who have completely given up on finding a job because they feel they would be unable to do so.

HOURLY EARNINGS AND WORKWEEK

Wages increased 15 cents in July, to $32.27, and remain higher by $1.60, or 5.2%, over the past 12 months. Average hourly earnings for private-sector production and nonsupervisory employees increased 11 cents in July, to $27.57. Over the last 12 months, average hourly earnings for private-sector production and nonsupervisory employees have increased $1.61, or 6.2%.

The average workweek for all private workers held steady in July, at 34.6 hours, and is down 0.2 hour from one year ago. The manufacturing workweek remained unchanged, at 40.4 hours, in July, and the number of manufacturing overtime hours increased to 3.3 hours, a 0.1-hour increase from June 2022 as well as June 2021. The average workweek for production and nonsupervisory employees remained at 34.0 hours in July, which is 0.3 hour less than one year ago.

Compensation costs for civilian workers for the three-month period ending June 2022, as measured by the Employment Cost Index, increased 1.3% as wages and salaries (which comprise 70% of compensation costs) increased 1.4% and benefit costs (which make up the remaining 30%) increased 1.2%. Over the past 12 months, compensation costs for civilian workers increased 5.1%, which is 0.6 percentage point higher than the first-quarter 2022 percentage and 2.2 percentage points higher than the figure from one year ago.

Compensation for private-industry workers increased 5.5% over the past year, compared to 3.1% in June 2021. Wages and salaries increased 5.7% for the 12-month period ending June 2022 and increased 3.5% in June 2021. However, when adjusted for inflation, wages and salaries declined 3.1% for the 12-month period ending June 2022. Employer costs of benefits increased 5.3% for the 12-month period ending June 2022 but declined 3.5% when adjusted for inflation. Employer (unadjusted) costs for healthcare benefits increased 4.6% for the 12-month period ending June 2022.

The Employment Cost Index is published quarterly by the Bureau of Labor Statistics and draws from a sample of 25,300 observations from 6,200 private businesses as well as 7,800 observations from 1,400 government offices.

EXHIBIT 7A: U.S. Employment—Past 24 Months

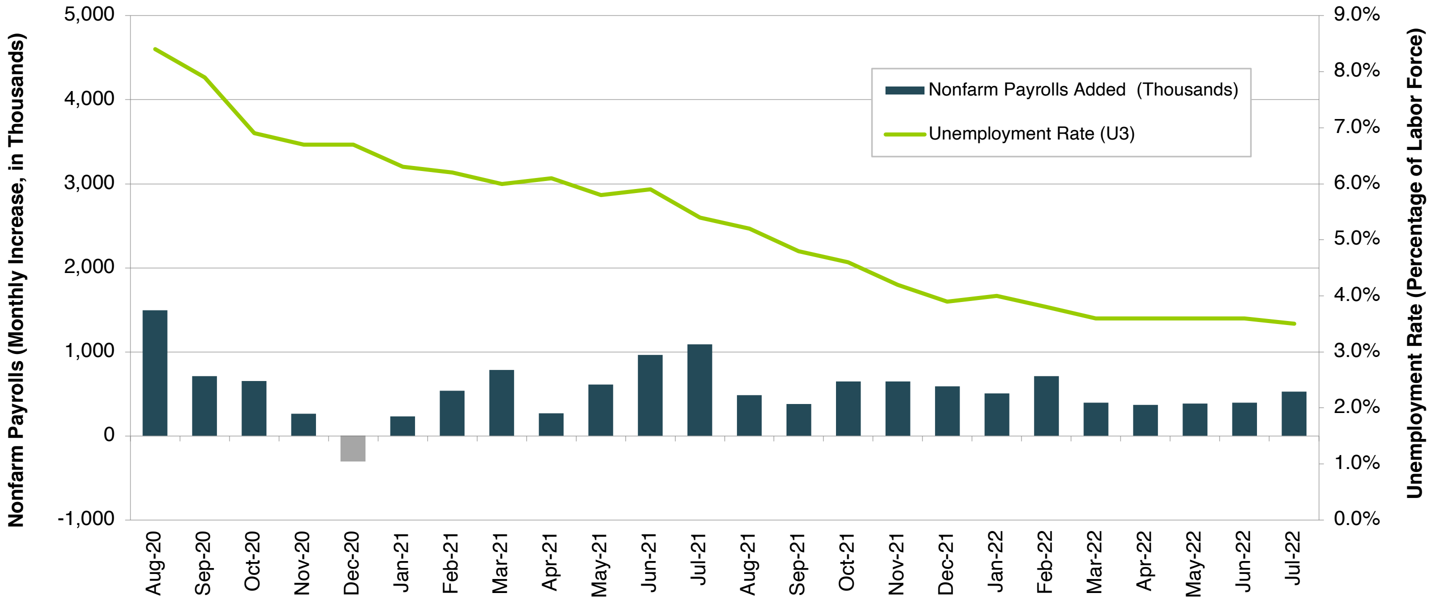
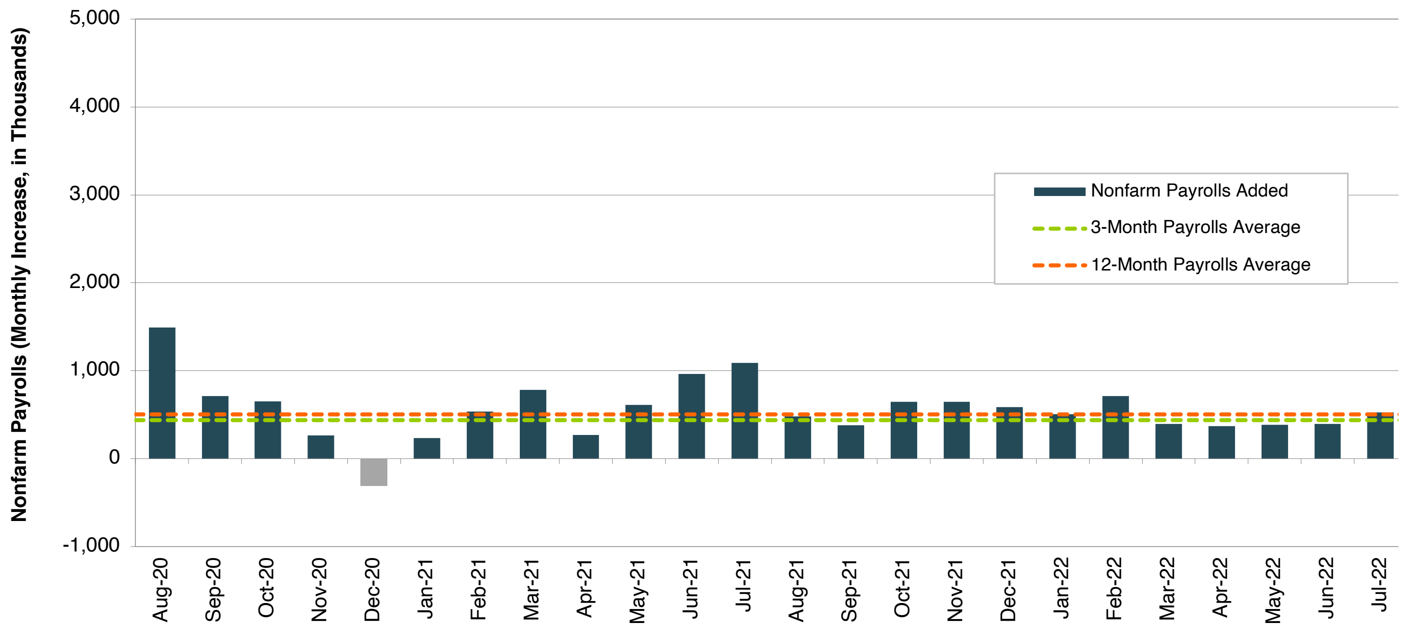


EXHIBIT 7B: U.S. Employment—Past 24 Months With Averages



Source of data: U.S. Department of Labor.

Notes: U3 is the official unemployment rate per the International Labour Organization definition and occurs when people are without jobs and they have actively looked for work within the past four weeks. U6 unemployment is broader than U3 to include "marginally attached workers" and people who are looking for and want full-time work but have to settle on part-time employment. "Marginally attached workers" are people who are not actively looking for work, but who have indicated that they want a job and have looked for work (without success) sometime in the past 12 months. This class also includes "discouraged workers" who have completely given up on finding a job because they feel that they just won't find one.

EXHIBIT 7C: U.S. Employment—10 Years

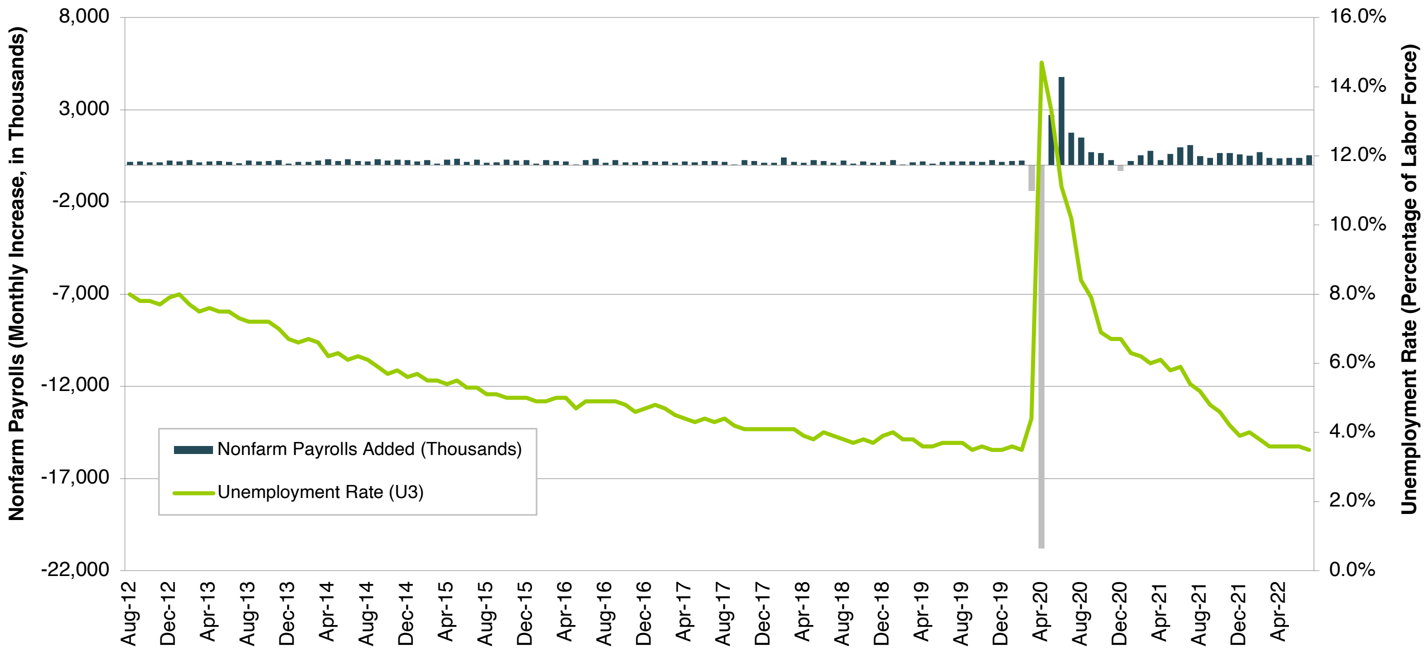
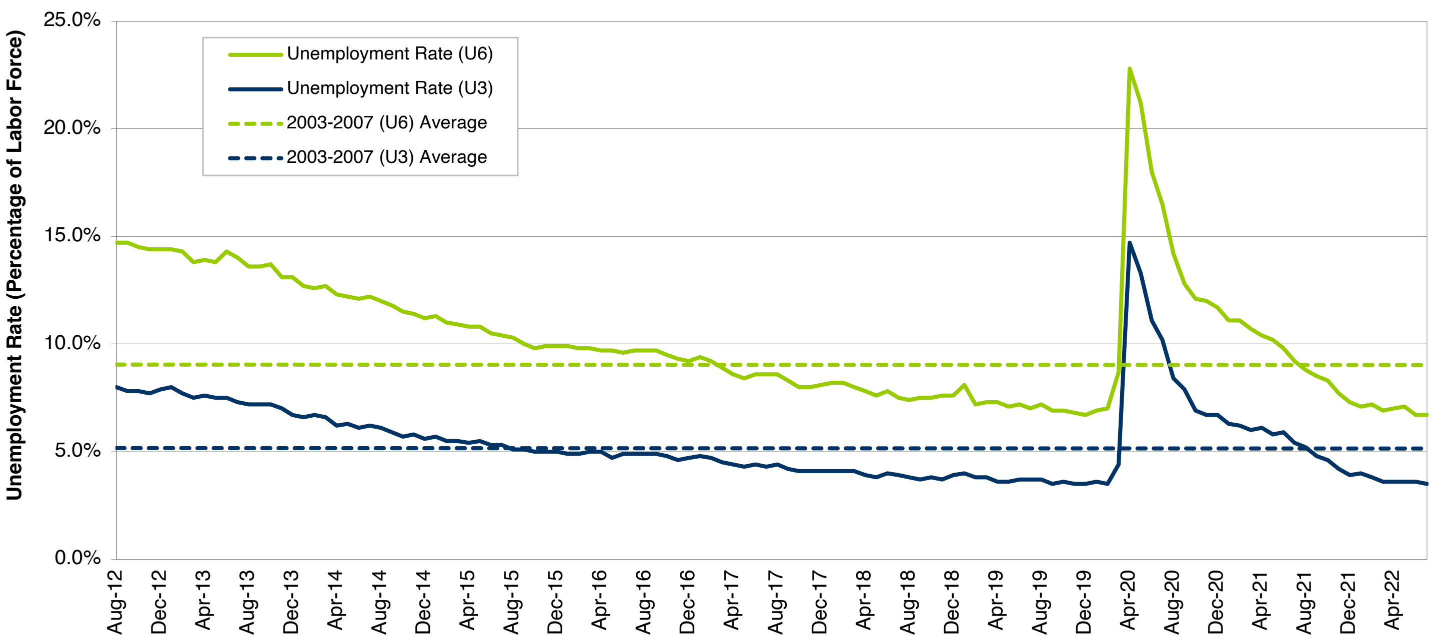


EXHIBIT 7D: U3 Unemployment Compared With U6 Unemployment—10 Years



Source of data: U.S. Department of Labor.

Notes: U3 is the official unemployment rate per the International Labour Organization definition and occurs when people are without jobs and they have actively looked for work within the past four weeks. U6 unemployment is broader than U3 to include “marginally attached workers” and people who are looking for and want full-time work but have to settle on part-time employment. “Marginally attached workers” are people who are not actively looking for work, but who have indicated that they want a job and have looked for work (without success) sometime in the past 12 months. This class also includes “discouraged workers” who have completely given up on finding a job because they feel that they just won’t find one.

MANUFACTURING PMI

The manufacturing index (PMI) fell 0.2 percentage points, to 52.8%, and is the lowest score since June 2020, when the PMI was 52.4%, as reported by the Institute for Supply Management (ISM). This score indicates expansion in the overall economy for the 26th consecutive month. The report noted companies continue to hire at strong rates with few indications of layoffs or hiring freezes. In addition, there was dramatic easing of prices in July, but instability in global energy markets is still of concern. Panel sentiment remained strongly optimistic regarding demand, with six positive growth comments for every cautious comment, an improvement over the ratio from June, when it was at 3-to-1. Softening new order rates and a growing concern about excess inventory are now front of mind with the panelists.

The breakdown of the components in July are as follows: Demand contracted, with the New Orders Index contracting; the Customers' Inventories Index remained at low levels; and the Backlog of Orders Index decreased but remained in growth territory. Consumption (measured by the Production and Employment indexes) was reportedly mixed in the period, adding 1.2 percentage points to the Manufacturing PMI calculation. The Employment Index shrunk in July for a third month after eight consecutive months of expansion, with some indication that hiring improved again in July. Inputs, which are expressed as supplier deliveries, inventories, and imports, continued to constrain production expansion. The Prices Index continued to increase for the 26th consecutive month but at a much slower rate than in the prior month. The Supplier Deliveries Index indicated deliveries slowed at a lesser rate in July than in previous months.

A reading above 50.0% indicates that the manufacturing economy is generally expanding. Therefore, the July Manufacturing PMI, at 52.8%, indicates the 26th month of expansion in the manufacturing economy. A Manufacturing PMI in excess of 42.9%, over a period, generally indicates an expansion of the overall economy.

Eleven of the 18 manufacturing sectors surveyed in July reported growth, with seven reporting a decrease.

The component for new orders decreased 1.2 percentage points in July, to 48.0%, the second month of contraction after growing for 24 consecutive months. A New Orders Index above 52.8%, over time, is generally consistent with an increase in the Census Bureau's series on manufacturing orders (in constant 2000 dollars). Four of the 18 industries reported growth in new orders in July, seven reported a decline in new orders, and seven industries reported no change.

The component for production decreased 1.4 percentage point in July, to 53.5%, continuing at a level indicating growth for the 26th consecutive month. An index above 52.4%, over time, is generally consistent with an increase in the Federal Reserve Board's industrial production figures. Panelists indicated material availability continue to improve, but factories are still struggling to hit optimum output rates due to high levels of employee turnover. Five of the 18 industries reported growth in production during the month of July, six industries reported a drop in production rates, and seven reported no change.

ISM's Employment Index in the manufacturing sector added 2.6 percentage points in July, rising to 49.9%, up from 47.3% in June. Employment in the manufacturing sector has contracted three consecutive months. An Employment Index above 50.6%, over time, is generally consistent with an increase in the Bureau of Labor Statistics' data on manufacturing employment. An overwhelming majority of panelists again indicate their companies are struggling to achieve labor management goals. Thirty-five percent of respondents indicated difficulty hiring, down from 42% in June, and turnover rates remain elevated in June. Eight of the 18 industries reported employment growth in July, and six reported a decrease.

The delivery performance score of suppliers to manufacturing organizations was lower in July, as the Supplier Deliveries Index registered 55.2%, a 2.1-percentage-point drop from the June score and the best performance since July 2020 when the index was 55.0% and businesses were emerging from pandemic shutdowns. Despite labor problems, supplier delivery performance improved in July. Ten of the 18 industries reported slower deliveries on the month, and five reported better supplier delivery performance in July.

The component that measures prices dropped 18.5 percentage points in July, to 60.0%. This decline in prices is the steepest percentage drop since June 2010. The score in July indicates raw material prices rose for the 26th consecutive month, but at a much slower rate. Increased prices were primarily driven by volatility in the energy markets; softening copper, steel, aluminum and corrugated markets; and a significant decline in demand for chemical-based products. A Prices Index reading above 52.7%, over time, is generally consistent with an increase in the Bureau of Labor Statistics' Index of Manufacturers Prices. Twelve of the 18 industries reported paying higher prices for raw materials in July.

In July, order backlogs decreased 1.9 percentage points, to 51.3%. This level indicates expansion for the 25th consecutive month. Five of the 18 industries reported growth in order backlogs in July.

The new export orders index rose by 1.9 percentage points in July, to 52.6%. The gain is attributed to China's recovery from the impact of COVID-19 lockdowns and stabilization of the European economy. The index remains at a level indicating growth for the 25th consecutive month. Four of the 18 industries reported growth on the month, and six reported a decrease in new export orders, while seven industries reported no change.

The imports index increased 3.7 percentage points in July, to 54.4%, continuing the growth mode interrupted in May. Asian ports started to clear their backlogs, which had a direct impact on the growth in imports in July. Ten of the 18 industries grew in July, while three industries reported lower volumes.

The index that tracks the average commitment lead time for capital expenditures fell by three days in July, to 183 days. The average lead time for maintenance, repair, and operating supplies increased seven days, to 51 days, which is an all-time high, and the average lead time for production materials stayed at its all-time high of 100 days.

The Institute for Supply Management published its most recent "Semiannual Economic Forecast" in May, and the report forecasts that manufacturing sector expectations for 2022 remain similar to the last report published in February "despite continued inflation and geopolitical unrest." Overall, 63% of the respondents expect revenues to grow in 2022 when compared to 2021, projecting a 15.5% net increase in overall revenues for 2022, compared to a 14.1% increase reported for 2021. Sixteen of the 18 manufacturing industries expect revenue improvement in 2022.

Executives and purchasing managers within the manufacturing sector expect the recovery in the manufacturing sector will continue the rest of 2022. Expectations are for business to continue to expand through the second half, albeit at slightly lower rates. The manufacturing sector experienced 24 consecutive months of growth from June 2020 through May 2022, with the Manufacturing PMI registering a score above 60.0 points in four of the last 12 months. Respondents expect that inflationary pressures will continue to cause raw materials pricing to increase in 2022 but expect to see improved profit margins through the second half of 2022.

In the manufacturing sector, respondents report operating at 87.2% of their normal capacity, which is 1.5 percentage points below the 88.7% reported in December 2021. Purchasing and supply executives predict that capital expenditures will increase by 7.4% in 2022 over 2021, compared to the 12.1% increase reported for 2021 over 2020. Manufacturers expect employment in the sector to grow by 3.2% in 2022 relative to December 2021 levels.

The panel predicts that prices paid for raw materials will increase 11.1% through the end of 2022. This compares to a reported 14.5% increase in raw materials prices between the end of 2020 and March 2021.

ISM's Manufacturing Business Survey asked respondents some questions specifically related to the economy. When asked about difficulties pertaining to hiring, 89% reported having difficulties in hiring. As a result, 56% had to raise wages to attract employees, while 28% were unable to hire as many employees as planned. When asked about supply-chain concerns, 17% of the respondents expected the situation to be better by the third quarter of 2022 and 30% expected an improvement by the fourth quarter of 2022. Despite the current supply-chain issues, 86% of the respondents were more likely to pass along the cost to consumers. Fifty-one percent of the respondents blamed domestic policies for the supply-chain issues, while 49% cited foreign causes. When specifically asked, 60% of respondents reported that the Ukraine war is disrupting their supply chain to some degree.

The highlights of the semiannual survey are:

- Operating rate is currently at 87.2% of normal capacity;
- Production capacity increased 3.5% in 2021 and is expected to increase by 5.8% in 2022;
- Capital expenditures increased 12.1% in 2021 and are expected to increase by 7.4% in 2022;
- Prices paid increased 14.5% in 2021 and are expected to increase by 11.1% in 2022;
- Manufacturing employment is expected to increase by 3.2% in 2022;
- Manufacturing revenue increased 14.1% in 2021 and is expected to increase by 6.5% in 2022; and
- The manufacturing sector is expected to continue to grow through the second half of 2022.

SERVICES PMI

The Services PMI, formerly the nonmanufacturing index (NMI), improved 1.4 percentage points in July, to 56.7%. A Services PMI reading above 50.0% indicates that the services sector of the economy is generally expanding, whereas a reading below 50.0% indicates that the services sector is generally contracting. A Services PMI in excess of 49.0%, over time, generally indicates an expansion in the overall economy. July represents the 26th consecutive month of growth in the Services sector, which has expanded in all but two of the last 150 months.

Thirteen of the 18 nonmanufacturing sectors surveyed in July reported growth during the month.

The component that measures business activity increased 3.8 percentage points in July, to 59.9%. The July reading indicates expansion for the 26th consecutive month. Panelists cited enhanced ability to work on projects as materials become available. Thirteen of the 18 industries in the index reported growth in business activity for the month.

The new orders component of the index increased 4.3 percentage points in July, to 59.9%. The index is at a level that indicates growth for the 26th consecutive month after two months of contraction. Eleven of the 18 industries in this index reported an increase in new orders for the month.

Employment activity in the nonmanufacturing sector contracted in July for the fourth time in six months. The index gained 1.7 percentage points, which brought the index to 49.1%. Eight of the 18 industries reported an increase in employment, while seven reported a decrease in July.

The supplier deliveries component fell in July, moving down by 4.1 percentage points, to 57.8%. A reading above 50% indicates slower deliveries, while a reading below 50% indicates faster deliveries. Panelists' comments cited continued labor shortages and uncertainty over when and how many products will arrive. Fourteen of the 18 industries reported slower deliveries on the month.

The index of prices nonmanufacturing organizations paid for purchased materials and services decreased 7.8 percentage points, to 72.3%. Prices have increased for 62 consecutive months. Sixteen of 18 industries reported an increase in prices paid in July.

Orders and requests for services and other nonmanufacturing activities domestically based companies provide outside of the U.S. grew for the sixth consecutive month in July. The index increased by 2.0 percentage points, to 59.5%. Six of the 18 industries reported an increase in new export orders in the month of July.

The inventory index decreased 2.5 percentage points in July, to 45.0% from 47.5% in June. Inventories contracted for the second consecutive month, after growing from February to May. This four-month growth period was preceded by an eight-month contraction. This reading indicates that respondents feel their inventories are too low when correlated to business activity levels. Long lead times that "have consumed safety stock," coupled with ongoing supply-chain issues, are contributing to the decline in the index. Seven industries reported an increase in inventory levels, and 10 industries report a drop in their inventories in July.

The Institute for Supply Management published its most recent "Semiannual Economic Forecast" in May, with the report noting that 48% of services supply management executives expect their 2022 revenues to be greater than they were in 2021. They expect a 4.9% net increase in overall revenues for 2022, compared to a 4.8% increase from 2021. All 18 industries are forecasting increased revenues in 2022.

Nonmanufacturing purchasing and supply executives report that their organizations are currently operating at 91.0% of normal capacity, which is 1.6% higher than December 2021. They forecast that their capacity to produce products and provide services will rise by 1.2% through the end of 2022 and capital expenditures will increase by 6.2%. Services panel members also predict their overall employment will increase by 2.5% by the end of 2022.

In May 2022, services supply executives report prices paid increased by 8.7%. This is 0.2% less than the 8.9% increase they predicted in December 2021. Seventy-six percent of respondents report price increases averaging 11.5%. Less than 1% indicate decreased prices, with an average reduction of 2.5%, and 24% of respondents did not experience price changes this year.

Nonmanufacturing supply managers predict their purchases through the end of 2022 will cost an average of 9.6% more than at the end of 2021. This is slightly more than the increase reported for calendar-year 2021, which was +9.2%. Seventy-six percent of services respondents predict the prices they pay will increase an average of 12.8% by the end of 2022. Almost no respondents expect price decreases averaging 50%. The remaining 24% predict no change in prices through the end of 2022.

Services purchasing and supply executives expect a 2.5% increase in labor and benefit costs in 2022. Thirty-four percent of respondents expect such costs to increase by an average of 10.3%. Another 9% of respondents expect labor and benefit costs to shrink by an average of 11.2%, and 57% believe costs will remain stable during 2022.

ISM's Services Business Survey asked respondents some questions specifically related to the economy. Eighty-seven percent reported having difficulties in hiring. As a result, 57% had to raise wages to attract employees while 28% were unable to hire as many employees as planned. When asked about supply-chain concerns, 15% of the respondents expected the situation to be better by the third quarter of 2022 and 32% expected an improvement by the fourth quarter of 2022. Despite the current supply-chain issues, 66% of the respondents were more likely to pass along the cost to consumers. Fifty-two percent of the respondents cited domestic-sourced supply-chain issues, while 48% cited foreign causes. About half (49%) of the respondents considered the war in Ukraine to be adversely affecting their supply chain.

HOSPITAL PMI

Economic activity in the hospital subsector fell in July, with a decrease of 3.1 percentage points to the index, which brought the score to 54.9%. Panelists reported a rise of COVID-19 patients in their hospitals, but these are not interfering with elective procedures in general. Costs continue to rise for both labor and supplies. Hospitals and clinics are struggling with sourcing products containing plastic and equipment requiring computer chips. The report notes "shortages of contrast media and laboratory supplies are easing." The Employment Index declined again in July, while Case Mix dropped (again) to 47.5% from 48.5% in June.

The Hospital PMI is based on data compiled from hospital purchasing and supply executives nationwide. A Hospital PMI index reading above 50% indicates that the hospital subsector is generally expanding; a reading below 50% indicates that it is generally declining. For the subindexes, except Supplier Deliveries, an index reading above 50% indicates that the subindex is generally expanding; a reading below 50% indicates that it is generally contracting. A Supplier Deliveries Index above 50% indicates slower deliveries, and a reading below 50% indicates faster deliveries. Therefore, the index score, 54.9%, represents growth to the industry for the 26th consecutive month.

The Days Payable Outstanding Index increased 7.5 percentage points, to 57.0%. The Technology Spend Index decreased 0.5 percentage point, to 53.0%.

The Institute for Supply Management (ISM) launched its first Hospital PMI, which assesses domestic hospital supply chains and is the first vertical ISM Report on Business, in collaboration with the Association for Health Care Resource and Materials Management and Strategic Marketplace Initiatives.

INDUSTRIAL PRODUCTION

The Federal Reserve reported that total industrial production increased 0.6% in July after no increase in June based on revised figures, but it advanced at an annual rate of 3.9% through July 2022 over July 2021. The score in July was 104.8%. Capacity utilization for the industrial sector increased 0.4 percentage point in July, to 80.3%, a rate that is 0.7 percentage point above its long-run (1972-to-2021) average.

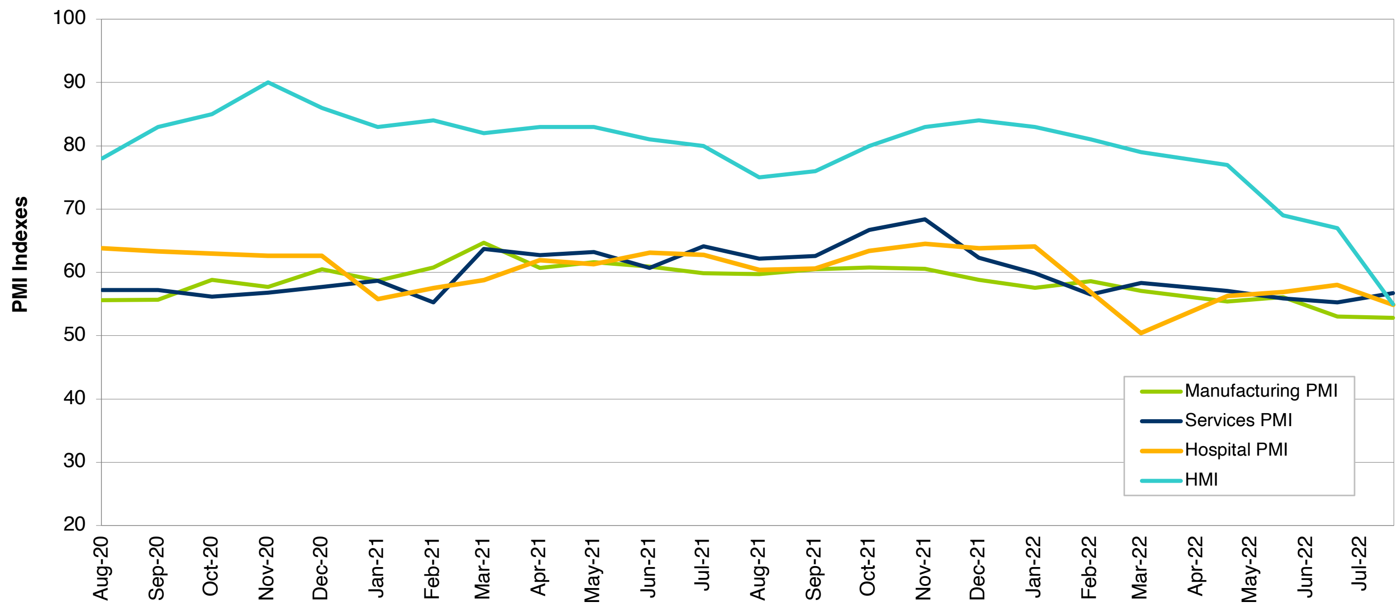
Manufacturing production increased 0.7% in July and is up 3.2% over the past 12 months. In July, the indexes for nondurable manufacturing increased 0.1%, while the index for durable manufacturing rose 1.3%, and other manufacturing moved up 0.4%.

In July, the most notable increase among durables was in motor vehicles and parts. Within nondurables, gains in apparel and leather products, and plastics and rubber products, were offset by declines in printing and support, and petroleum and coal products. The index for mining extended its run of consecutive gains to five months and has advanced 7.9 points over the past 12 months.

Capacity utilization for manufacturing rose by 0.5 percentage point, in July, to 79.8%. The operating rate for mining increased 0.3 percentage point, to 88.0%, in July, which is above the long-run average of 86.3%. The capacity utilization rate for utilities fell to 74.5% from a revised 75.3% in June and remains below the long-run average of 84.7%.

US equities ended July in positive territory after a sharp downturn in June. The S&P 500 added 9.2%; the Dow Jones Industrial Average rose, by 6.8%; and the Nasdaq Composite grew 12.4% in July when compared to June.

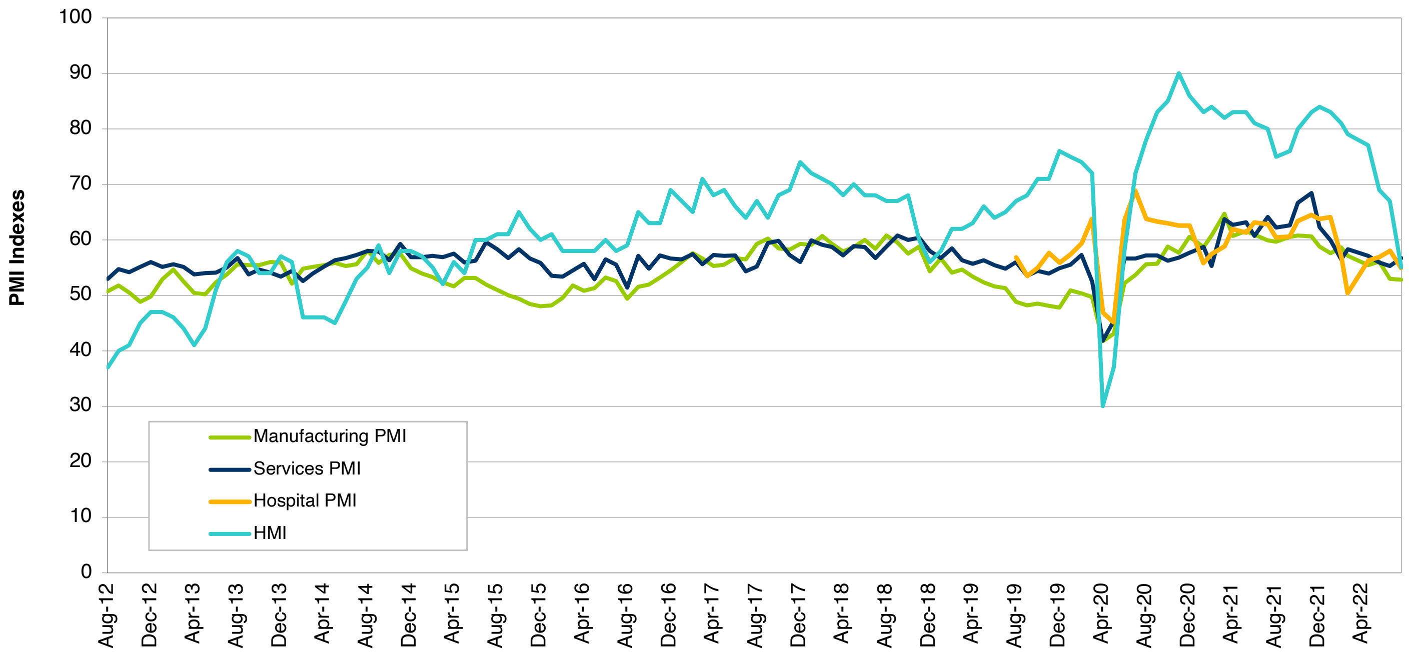
EXHIBIT 8A: Manufacturing, Services, Hospital Supply Chains, and Housing Indicators—Past 24 Months



Sources of data: Institute for Supply Management and the National Association of Home Builders.

Notes: PMI is the Institute of Supply Management's Manufacturing Index—any reading above 50.0% suggests growth in the manufacturing economy, whereas a reading below 50.0% indicates contraction. Services PMI measures the strength of the services sector—any reading above 50.0% suggests growth, whereas a reading below 50.0% indicates contraction. Hospital PMI is the Institute of Supply Management's Hospital Index—any reading above 50.0% suggests growth, whereas a reading below 50.0% indicates contraction. HMI is the National Association of Home Builders/Wells Fargo Housing Market Index—any reading over 50 indicates that more builders view sales conditions as good than poor.

EXHIBIT 8B: Manufacturing, Services, Hospital Supply Chains, and Housing Indicators—10 Years



Sources of data: Institute for Supply Management and the National Association of Home Builders.

Notes: PMI is the Institute of Supply Management's Manufacturing Index—any reading above 50.0% suggests growth in the manufacturing economy, whereas a reading below 50.0% indicates contraction. Services PMI measures the strength of the services sector—any reading above 50.0% suggests growth, whereas a reading below 50.0% indicates contraction. Hospital PMI is the Institute of Supply Management's Hospital Index—any reading above 50.0% suggests growth, whereas a reading below 50.0% indicates contraction. HMI is the National Association of Home Builders/Wells Fargo Housing Market Index—any reading over 50 indicates that more builders view sales conditions as good than poor.

STOCK MARKET AND VOLATILITY

The Russell MidCap rose 9.9% in July and has fallen 13.8% year to date, and the Russell 2000 Index increased 10.4% in July and has fallen 15.4% year to date.

Volatility eased in July, but the Chicago Board Options Exchange Volatility Index continued at heightened levels in 2022. In July, the index ranged from 21.2 to 29.8, for a monthly average of 24.9, lower than the annual average of 26.2 for the first time since January 2022. The VIX represents the implied volatility of 30-day options on the Standard & Poor's 500 stocks and has been termed by analysts and investors as the "fear gauge." Accordingly, the VIX represents the expected volatility of the market, as represented by the Standard & Poor's 500 index. Stock market professionals use the VIX to gauge investor sentiment. Values greater than 30 are generally associated with a large amount of volatility because of investor fear or uncertainty, while values below 20 generally correspond to less stressful, even complacent, times in the markets.

EXHIBIT 9A: Stock Market and Volatility

TOTAL RETURN*

Index	Jul-22	Year-to-Date
Dow Jones Industrial Average[1]	6.8%	-8.6%
S&P 500[1]	9.2%	-12.6%
Nasdaq Composite[2]	12.4%	-20.8%
Russell MidCap[3]	9.9%	-13.8%
Russell 2000[3]	10.4%	-15.4%

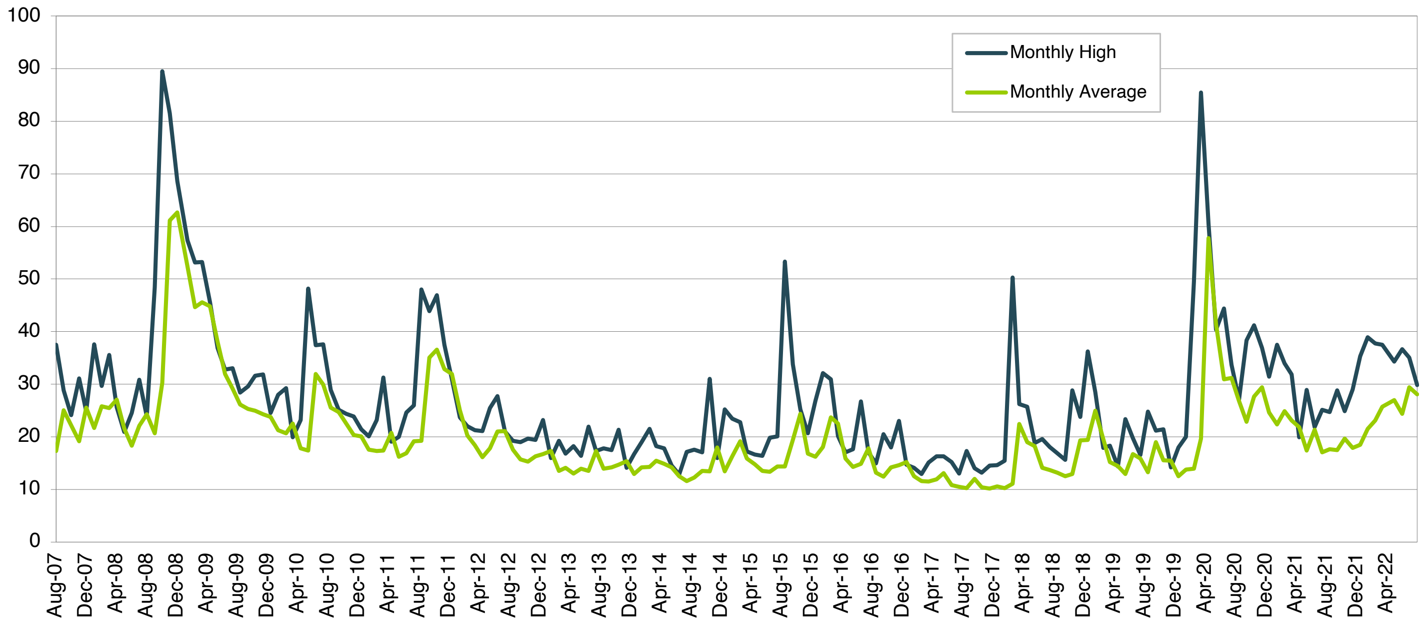
Source of data: 1) S&P Dow Jones Indices, 2) Yahoo! Finance, 3) FTSE Russell US Indexes
*Returns are for the periods ended July 31, 2022. The returns include dividends based on data compiled by T. Rowe Price, except for the Nasdaq Composite, whose return is principal only.

VOLATILITY

VIX*	Jul-22	Year-to-Date
High	29.8	38.9
Low	21.2	16.3
Average	24.9	26.2

Source of data: Yahoo! Finance
*The Chicago Board Options Exchange Volatility Index (VIX)—a popular volatility measure—represents the implied volatility of 30-day options on the Standard & Poor's 500 stocks and has been termed by analysts and investors as the "fear gauge." Investopedia says the following: "VIX values greater than 30 are generally associated with a large amount of volatility as a result of investor fear or uncertainty, while values below 20 generally correspond to less stressful, even complacent, times in the markets."

EXHIBIT 9B: CBOE Volatility Index—15 Years



CONSUMER PRICE INDEX AND PRODUCER PRICE INDEX

CONSUMER PRICES

Consumer prices were essentially flat in July after rising 1.3% in June. Following the monthly results, the annual rate rose 8.5%. The gasoline index fell 7.7% in July, offsetting an increase in the food index, which rose 1.1% over the month. The food index has risen 10.9% over the last 12 months.

The energy index fell in July by 4.6%. Prices of gasoline fell sharply, by 7.7%, over June. The energy index has risen 32.9% over the last year, a smaller increase than the 41.6% increase for the 12-month period ending June 2022.

The CPI is a measure of a basket of products and services—including housing, electricity, food, and transportation—and is used as a measure of inflation. The CPI is comprised of three main indexes: the food index, the energy index, and all items less food and energy index (also known as "Core CPI"). The Core CPI is a measure of inflation that excludes volatile food and energy costs. The Core CPI rose 0.3% in July, 0.4% less than June. The Core CPI has risen 5.9% over the past 12 months.

The Chained Consumer Price Index for all urban consumers rose 0.1% in July, after a rise of 1.2% in June. Over the past 12 months, the index is up 8.0%. The Chained Consumer Price Index was designed to be a closer approximation of a cost-of-living index in that it, in its final form, accounts for any substitution that consumers make across item categories in response to changes in relative prices.

PRODUCER PRICES

The Producer Price Index (PPI) fell 0.5% in July, after it rose 1.0% in June and 0.8% in May. The PPI for final demand is comprised of two main indexes: final demand services and final demand goods. The decline in July reflects a 1.8% drop in prices for final demand goods and 0.1% increase for final demand services. Over the past 12 months, the PPI has grown at an annual rate of 9.8%.

The index for final demand less foods, energy, and trade services, or Core PPI, increased 0.2% in July, after rising 0.3% in June. Over the past 12 months, prices for final demand less foods, energy, and trade services rose 5.8%.

EXHIBIT 10A: U.S. Consumer Price Index—Past 24 Months

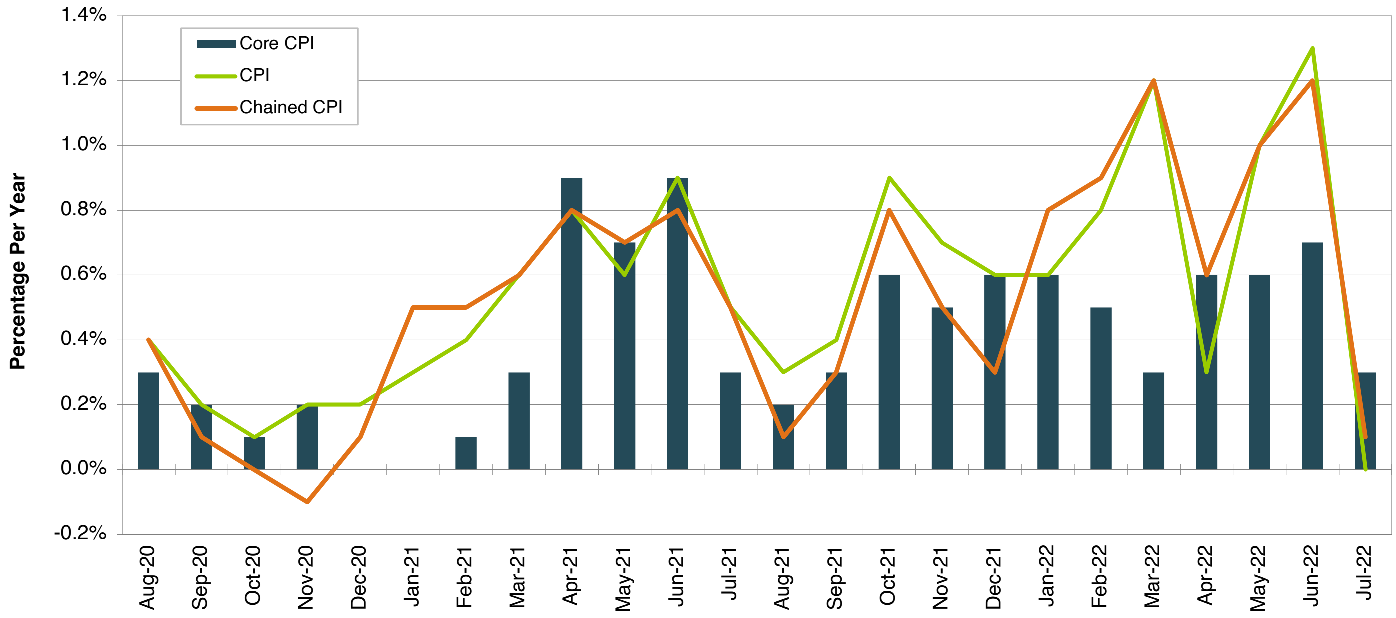
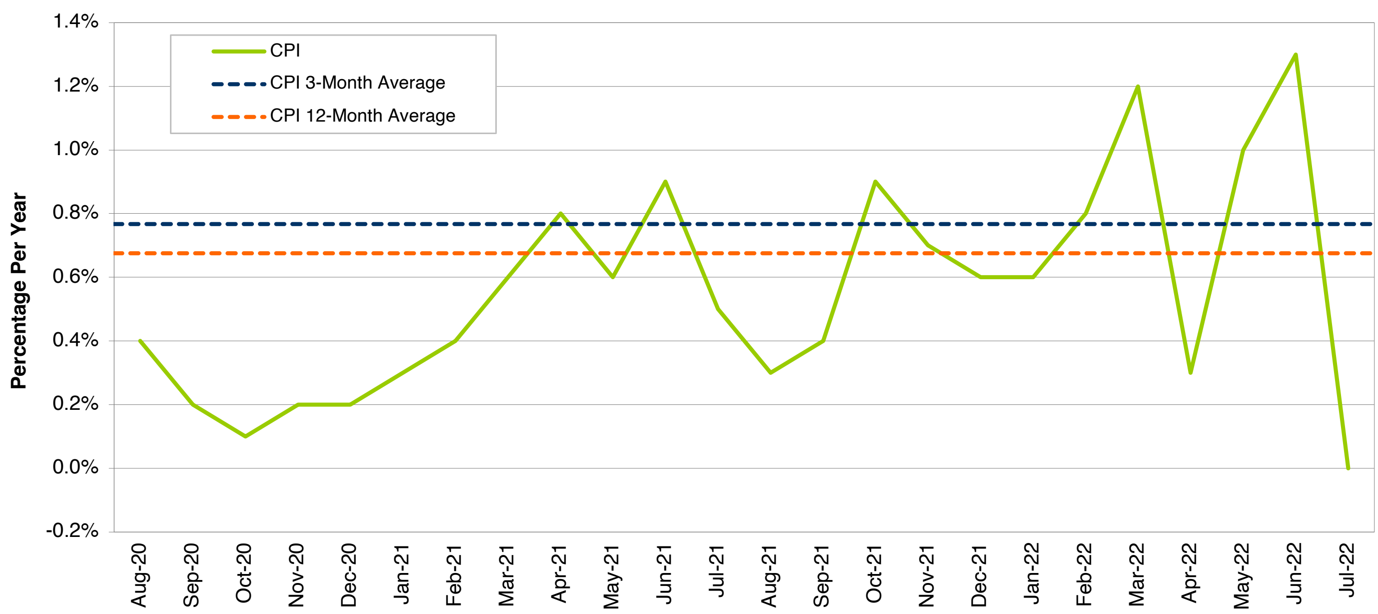


EXHIBIT 10B: U.S. Consumer Price Index—Past 24 Months With Averages



Source of data: U.S. Department of Labor.

Notes: Data are seasonally adjusted change from the prior month. Core CPI is the All Items Less Food and Energy Index. Core PPI is the Final Demand Goods Less Foods and Energy Index.

EXHIBIT 10C: U.S. Producer Price Index—Past 24 Months

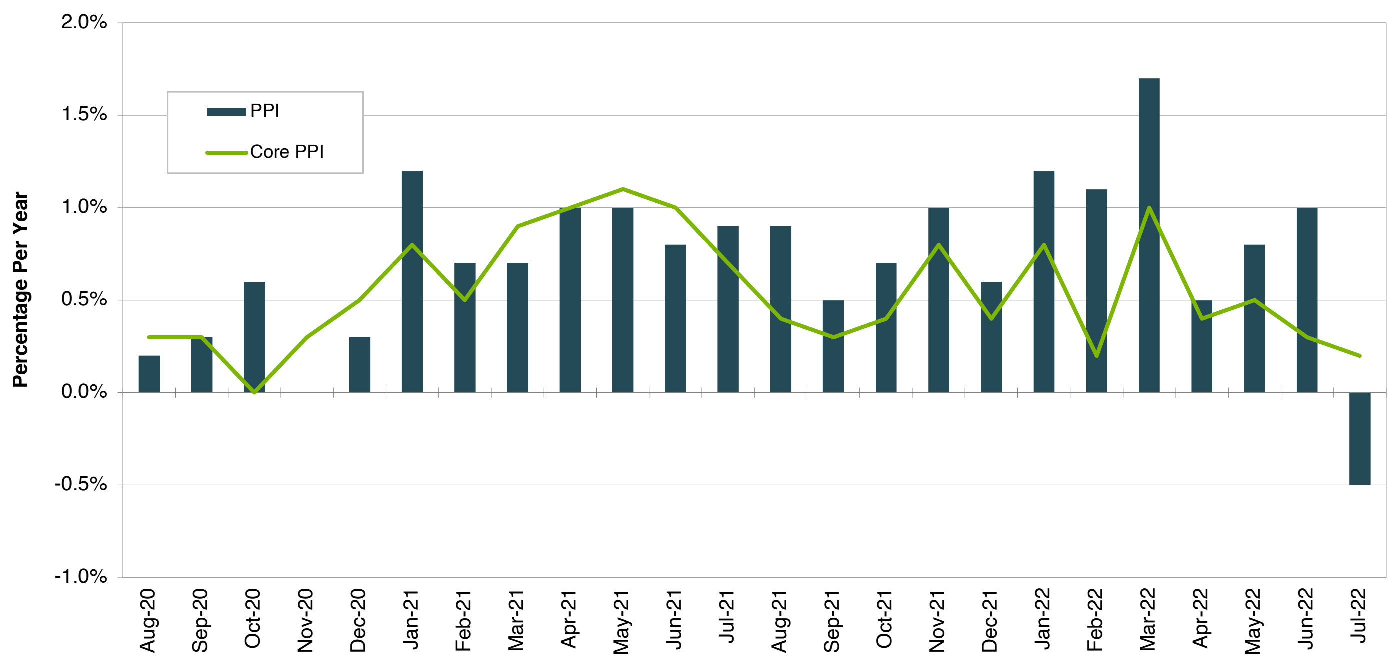
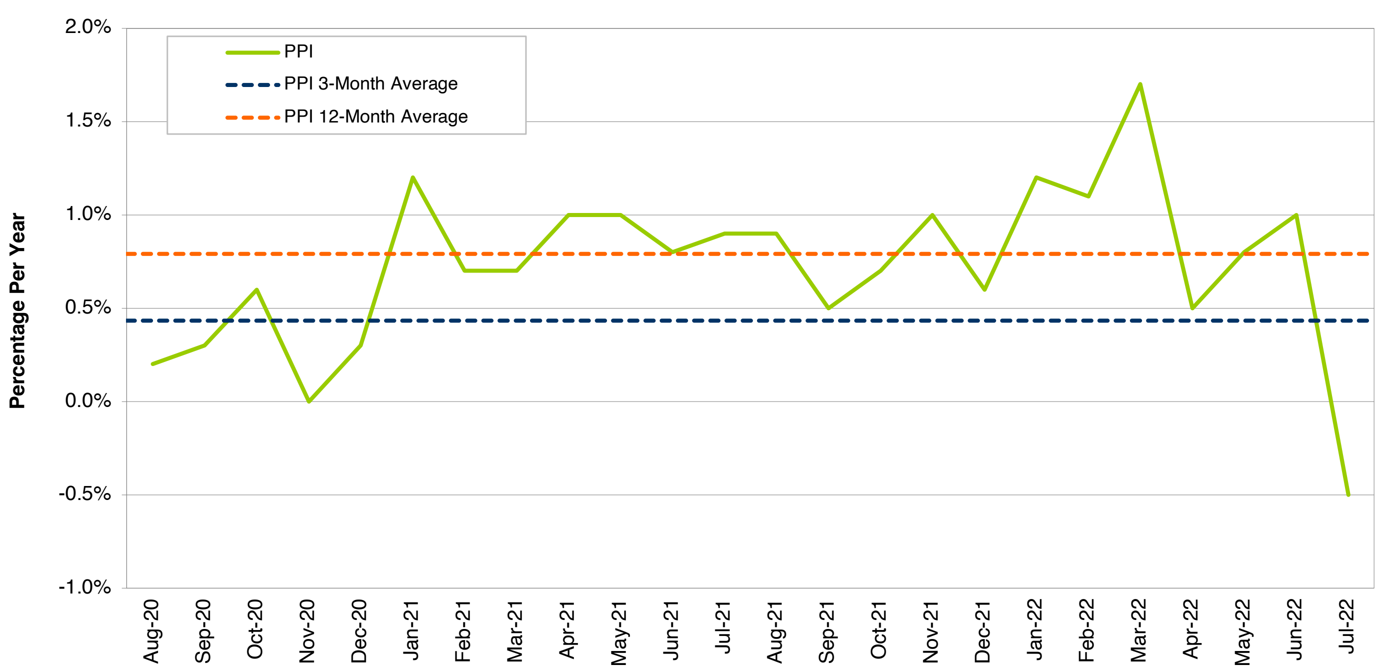


EXHIBIT 10D: U.S. Producer Price Index—Past 24 Months With Averages



Source of data: U.S. Department of Labor.

Notes: Data are seasonally adjusted change from the prior month. Core CPI is the All Items Less Food and Energy Index. Core PPI is the Final Demand Goods Less Foods and Energy Index.

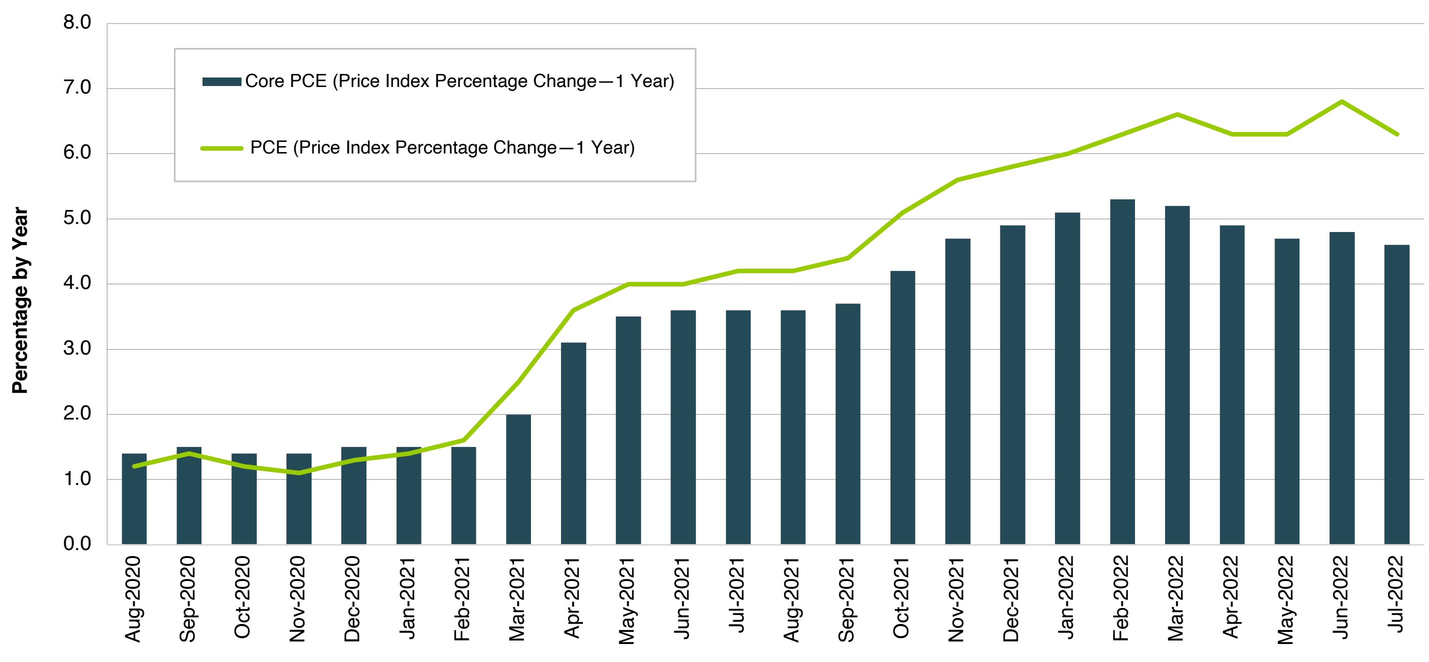
PERSONAL CONSUMPTION EXPENDITURE

The Federal Reserve often emphasizes the price inflation measure for personal consumption expenditures (PCE), which the Department of Commerce produces, largely because the PCE index covers a wide range of household spending and is less volatile than some other measures. Consumer spending, as measured in current dollars highlighted in the July report, increased $23.7 billion, or 0.1%. This is 0.9 percentage point below the June figure.

The PCE price index decreased 0.1% in July after increasing 1.0% in June. Core PCE, which excludes the volatile food and energy components, rose 0.1% in July, a decline from the 0.6% increase in June. From July 2021 to July 2022, the PCE price index is up 6.3%, which is slightly lower than the June-2021-to-June-2022 index of 6.8%. Core PCE has risen 4.6%, which is slightly lower than the 4.8% rate in June. At 4.6%, Core PCE, which is the Federal Reserve's preferred inflation measure, remains above the Federal Reserve's long-term rate, 1.99%, and was higher than the US central bank's 2.0% inflation target. Year-over-year increases in the PCE index reflect increases in both goods and services with significant increases in energy prices and food.

In July, federal pandemic-related assistance programs continued to taper off. The full economic effects of the COVID-19 pandemic cannot be quantified in the personal income and outlays estimate because the impacts are generally embedded in source data and cannot be separately identified.

EXHIBIT 11: U.S. Personal Consumption Expenditure—Past 24 Months



HOUSING STARTS AND BUILDING PERMITS

In July, housing starts were 1.446 million, 9.6% below the revised figure for June of 1.599 million. July starts are 8.1% below the July 2021 rate. Single-family housing starts were at 916,000, 10.1% below the revised June figure, which came in at 1.019 million. The multifamily sector added 514,000 buildings in July 2022, compared with 571,000 in June and 438,000 in July 2021. The multifamily-home sector, which consists of buildings with five units or more, tends to be more volatile than the single-family-home sector.

Building permit authorizations for privately owned housing units, considered a leading indicator of demand for new homes, decreased 1.3% in July, coming in at a seasonally adjusted rate of 1,674,000. On a year-over-year basis, the figure rose a modest 1.1%. There were 928,000 building permits issued for single-family housing units, which is down 4.3% compared to June, and 11.7% less than July 2021. Building permits for multifamily housing units rose 693,000 in July, an increase of 2.5% from June, and 26.2% more than a year ago.

Housing completions were at a seasonally adjusted rate of 1,424,000 in July, which is 1.1% above the adjusted rate for June and 3.5% above the rate from one year ago. Single-family housing completions in June were at a rate of 1,009,000, which is 0.8% less than the revised rate for June but 7.0% more than July 2021. The rate for multifamily housing completions was 412,000 in July, which is 6.7% greater than completions in June and 1.9% less than a year ago.

Builder confidence declined again in July as the National Association of Home Builders (NAHB)/Wells Fargo Housing Market Index (HMI) fell by 12.0 points, to 55.0 points, the lowest point since June 2020 and the seventh consecutive month of declines. The report noted the housing market's continued slide is due to affordability challenges caused by rising interest rates and home prices. An HMI reading above 50.0 indicates that more builders view sales conditions as good, rather than poor.

All three HMI components declined in July. The component measuring current sales conditions moved down 12.0 points, to 64.0. The component gauging sales conditions over the next six months declined 11.0 points, to 50.0, and the component that measures buyer traffic fell 11.0 points, to 37.0.

Looking at the three-month moving averages for the regional HMI indexes, the Northeast fell six points, to 65.0; the Midwest fell four points, to 52.0; the West fell 12 points, to 62.0; and the South dropped eight points, to 70.0.

HOME SALES, PRICES, AND INVENTORY

Existing-home sales fell for a sixth month, declining 5.9% in July, in response to rising mortgage rates that peaked in June and have started to come down. However, home prices continue to rise due to tight inventory. Homes continue to sell rapidly when priced right, and home price gains remain in the double digits, at 10.8%.

The number of existing-home sales in June was at an annual pace of 4.81 million, which is down 20.2% from last year. All four regions saw a decline in sales in July.

All-cash sales were 24% of transactions in July, which is one percentage point lower than June and is up one percentage point from one year ago. Individual investors, or second-home buyers, who account for many cash sales, purchased 14% of homes in July, which is two percentage points less than June and one percentage point lower than one year ago. First-time buyers accounted for 29% of sales in July, which is 1.0 percentage point below June as well as one year ago.

Shares of distressed home sales, which include both foreclosures and short sales, were less than 1.0%, which is unchanged from last month and from one year ago.

The National Association of Realtors (NAR) reports decreases in the number of home sales in all four major regions in July. Prices continued to increase over one year ago in all regions. Home sales in the Northeast were down 7.5%, at an annual rate of 620,000, and are down by 16.2% from a year ago. The median price increased by 8.1% over a year ago, to $444,000. Sales in the Midwest slid by 3.3% in July and are down by 14.4% from one year ago. Prices are higher by 7.0% than a year ago, at $293,300. Sales in the South retreated 5.3% in July and are down 19.6% from one year ago. Median prices increased 14.7% over a year ago, to $365,200. Sales in the West dropped in July by 9.4% and are down 30.4% from one year ago. The average price was $614,800, which is 8.1% higher than July 2021.

The national median existing-home price for all housing types was $403,800 in July, which is up 10.8% from a year ago. The July 2022 price increase marked the 125th consecutive month of year-over-year price gains.

The median time on the market for all homes sold in July was 14 days, which is unchanged from June and three days less than one year ago. Eighty-two percent of homes sold in July were on the market for less than a month.

A report published by Redfin in April 2022 indicated that 51% of US homeowners with mortgages have a mortgage rate under 4%, which is substantially below the current rate of 5.52%. About one-third of all homeowners, including those without mortgages, have a mortgage rate under 4%. The rise in rates has prompted a slowdown in home listings, with the primary reason being that existing homeowners are not looking to move and take on a higher mortgage. This report covers roughly 80 million owner-occupied US households, of which about two-thirds (62%) have an outstanding mortgage.

Also, according to the National Association of Realtors (NAR), total housing inventory rose to 1.31 million existing homes for sale in July, up 4.8% from June and unchanged from one year ago. Unsold inventory was at a 3.3-month supply at the current sales pace in July, which is higher than 2.9-months' supply in June and 2.6 months higher than one year ago. Six months of inventory is considered a balanced market that equally benefits buyers and sellers.

The Federal Housing Finance Agency (FHFA) published its House Price Index, which showed U.S. housing prices increasing 0.1% in June when compared to the prior month. When compared to the period from one year ago, home prices increased 17.7%. Prices for homes rose in four of the nine census divisions when comparing June 2022 to May 2022. The East South Central division experienced the highest increase, at 1.4%. Of the five census divisions posting a decrease in prices, the West North Central division decreased the most, 0.9%. The 12-month changes ranged from 13.9% in the West North Central region to 23.0% in the South Atlantic region.

According to Freddie Mac, the national average commitment rate for a 30-year, conventional, fixed-rate mortgage dropped slightly in July, to 5.41%, down from 5.52% in June. The average 30-year rate in 2021 was 2.96%.

In July, the NAR's Realtors Confidence Index Survey reported that 10% of respondents expect an increase in buyer traffic in the next three months, down from 11% in June and 30% in July 2021. Fourteen percent of respondents believe seller traffic will increase, down from 15% in June and 27% one year ago. The report noted 86% of buyers purchased a property in a suburban, small-town, rural, or resort area, about the same rate from one year ago. The share of first-time buyers fell one percentage point in July, to 29%, and was one percentage point less than it was in June 2021, which was 30%. The share of nonprimary residence buyers dropped to 14% and is one percentage point less than it was one year ago. The number of vacation homebuyers held at 5%. The RCI is a key indicator of housing market strength based on a monthly survey of over 50,000 real estate practitioners.

NAR, in its most recent quarterly U.S. economic outlook, projects existing-home sales in 2022 to be 5.31 million (-13.2%) and expects them drop further, to 5.29 million (-0.4%), in 2023. It believes that new single-family home sales will be 640,000 (-17.0%) in 2022, before increasing to 720,000 (+12.5%) in 2023. NAR believes the median existing-home price will be $390,900 (+11.5%) in 2022, before increasing to $399,300 (+2.1%) in 2023. NAR believes the median new-home price will be $431,500 (+8.7%) in 2022, before dropping to $430,000 (-0.3%) in 2023. It expects housing starts to increase to 1.608 million (+0.4%) in 2022, then to 1.710 million (+6.3%) in 2023. NAR believes the 30-year fixed mortgage rate will average 5.2% in 2022 and rise to 6.0% in 2023 and the 5-1 hybrid adjustable-rate mortgage will average 4.0% in 2022 and 4.8% in 2023.

COMMERCIAL REAL ESTATE

NAR's most recent "Commercial Markets Insight," published in May, analyzed the trends in the commercial market through May and reported that the combination of high inflation and higher interest rates is causing mixed results in commercial real estate demand.

Through May, the vacancy rate in the apartment market rose slightly, to 5.3%. With vacancy rates remaining low, asking rents were up 9.7% year over year on average. The office space has continued to improve since the third quarter of 2021, and, as of May, asking rents are up on average by 1.0% year over year. The industrial sector has the lowest vacancy rate among the core property markets, at 4.0%, which is driving up rent growth to 11.8% year over year. In the retail property market, the average vacancy rate is low, at 4.4%, with asking rents up 4.1% year over year. While the hotel property market has improved compared to one year ago, the emergence of the omicron variant in November stalled the hotel property market's recovery. Hotel occupancy was just at 65.1% in May, which is above the occupancy rate of 56.9% before the pandemic in February 2020.

All commercial sectors experienced net positive absorption in the preceding four months including May. Supply in the multifamily sector outpaced demand, thus increasing the vacancy rate to 5.3% from 5.2%. In the office sector, the vacancy rate rose, to 12.2% from 9.7%, and, in the industrial market, the vacancy rate for core property markets continued at 4.0%. In the retail property market, the vacancy rate sits at 4.4%, below the 4.7% vacancy rate in 2020.

Higher interest rates have resulted in heightened risk aversion. Thus, investor acquisitions slowed somewhat in the 12-month period ending in May 2022. Acquisitions declined across asset classes, to $582 billion, for the 12-month period ending May 2022, a 7% drop from the 12-month period ending May 2021.

In the most recent release of the Value of Construction Put in Place Survey, the U.S. Census Bureau reported that overall spending on construction was at a seasonally adjusted annual rate of $1,762.3 billion in June. This figure was 1.1% below the revised May rate of $1,781.9 billion and 8.3% above the $1,628.0 billion rate from one year ago. Private nonresidential construction was at a seasonally adjusted annual rate of $492.7 billion in June, 0.5% below the rate from May, at $495.3 billion, but 1.7% higher than one year ago.

CBRE Research's new Construction Cost Index forecasts a 14.1% increase in cost over 2021 by the end of 2022. The report, issued in July 2022, cites various economic influences on the construction industry creating "a confluence of events" including high construction demand, inflation, pandemic-related constraints, supply-chain interruptions, labor shortages, and the Ukraine war, causing uncertainty and rising costs in the industry. The report also indicates an expectation that material cost inflation to cool by the end of 2022 and return to more normal levels by mid-2023.

The American Institute of Architect's (AIA) Consensus Construction Forecast, updated midyear, projects construction spending to increase approximately 9% in 2022 and grow another 6% in 2023. This forecast is more optimistic than projected earlier in the year, largely due to surprising strength in retail facilities and strong gains in the manufacturing category. Strong consumer spending on goods during the pandemic along with the growth of e-commerce have led to an increased demand for warehouse space and distribution centers in an attempt to buffer businesses from the supply-chain disruptions experienced since the start of the pandemic and exacerbated by the war in Ukraine.

USG Corp. and the U.S. Chamber of Commerce published their most recent quarterly Commercial Construction Index for the fourth quarter of 2021, which worsened slightly, moving lower by 1.0 point, to 65.0. The fourth-quarter survey highlighted concerns of contractors regarding a decline in revenue and rising labor costs as a result of rising inflation. The decline in the fourth-quarter score was the first time the index moved lower since the start of the pandemic.

The key drivers for this quarter's survey included a score of 75.0 points for the ideal backlog total, which is up 1.0 point from last quarter and is the closest it has been to its prepandemic score of 76.0 points from the first quarter of 2020. The ability of contractors to provide new business decreased 1.0 point, to 63.0, which suggests that contractors have a moderate to high level of confidence they will provide sufficient new business opportunities in the next 12 months. At 58.0 points, the component that measures contractors' expectations to see revenue increase or at least remain the same moved lower by 3.0 points from the last quarter. Among the survey respondents, 35% expect revenues to increase, which is down 2.0 percentage points from last quarter. Seven percent expect to see a decline, which worsened by 3.0 percentage points from last quarter.

The fourth-quarter survey spotlighted the impact of the coronavirus within the industry and the fact that product shortages remain a top concern. The issues that impacted contractors the most in the fourth quarter were less availability of building products and materials, cited by 60% of contractors, and an increase in the ongoing workforce shortage in construction, named by 52% of contractors.

When asked about labor issues, 62% of contractors reported moderate to high levels of difficulty finding skilled workers, which is up 7.0 percentage points from last quarter. Contractors say the already-chronic problem of finding enough skilled workers turned worse this quarter. Specifically, 91% of contractors reported moderate to high levels of difficulty finding skilled workers, up three percentage points from the prior quarter, which is 20 percentage points higher from just a year ago, when 42% of contractors reported difficulty in finding these workers. Contractors have also grown more concerned about workers having adequate skills, with 56% reporting they have this concern, up 6.0 percentage points from last quarter and 20 percentage points year over year. Thirty-five percent of contractors report a moderate degree of concern this quarter, which is down from 42% in the prior quarter. Looking ahead, many contractors feel the chronic skills shortage will only get worse and few anticipate improvements. Ninety-three percent of contractors who reported moderate to high concern expect the problem with finding skilled workers will stay the same or get worse in the next six months. Only 6% expect it to improve, and 1% are unsure.

When asked about their revenue expectations, most contractors anticipate revenue to remain steady despite growing uncertainties over labor and materials costs. Very few see declining revenue ahead. A majority of contractors, or 58%, expect their revenues to remain about the same in the next 12 months, which is down five percentage points from the prior quarter. Thirty-five percent of contractors expect their revenue to increase in the next year, which is down two percentage points from last quarter, and just 7% of contractors anticipate declining revenues. Those expecting changes predict they will be small. Of those expecting a revenue increase, 34% believe it will be an increase of up to 3%, while 21% think it will be an increase of 10% or more. Of those expecting a decrease, 33% believe it will be a decrease of up to 3%, while 29% think it will be a decrease of 10% or more.

When asked about plans to spend more on tools and equipment, contractors voiced concern about the cost of building materials being near an all-time high. This quarter, 97% of contractors indicated cost fluctuations have a moderate-to-high impact on their business. This figure is up 23 percentage points year over year. Of those who said material cost fluctuations have had a considerable impact on their business, 43% said steel was their top concern, followed by 31% who say wood/lumber is the product of most concern. In third place was roofing materials, with 19% saying they were their biggest concern in terms of price changes.

Consensus Economics Inc., publisher of *Consensus Forecasts—USA,* reports that the consensus of U.S. forecasters believe that real GDP will rise at a seasonally adjusted annual rate of 1.7% in the third quarter of 2022 and increase by 1.2% in the fourth quarter of 2022. Every month, Consensus Economics surveys a panel of 30 prominent U.S. economic and financial forecasters for their predictions on a range of variables, including future growth, inflation, current account and budget balances, and interest rates. The forecasters expect GDP to increase 2.1% in 2022 and 1.0% in 2023.

They forecast that consumer spending will increase at a rate of 1.8% in the third quarter of 2022 and rise 1.3% in the fourth quarter of 2022. They expect consumer spending to increase 2.5% in 2022 and 1.1% in 2023.

The forecasters believe unemployment will average 3.6% in the third quarter of 2022 and average 3.7% in the fourth quarter of 2022. They predict that unemployment will average 3.7% in 2022 and 4.2% in 2023.

The forecasters believe that the three-month Treasury bill rate will be 2.5% in the third quarter of 2022 and rise to 3.1% in the fourth quarter of 2022. They predict the 10-year Treasury bond yield will be 3.2% in the third quarter of 2022 and rise to 3.3% in the fourth quarter of 2022.

They also believe consumer prices will rise at a rate of 6.7% in the third quarter of 2022 and rise 4.1% in the fourth quarter of 2022. They expect consumer prices to increase 7.9% in 2022 and 3.7% in 2023. They expect producer prices to increase 6.5% in the third quarter of 2022 and rise 4.1% in the fourth quarter of 2022. The forecasters anticipate producer prices will rise 12.8% in 2022 and 2.9% in 2023.

The forecasters believe real disposable personal income will rise 0.9% in the third quarter of 2022 and increase by 1.5% in the fourth quarter of 2022. They believe real disposable personal income will decrease 5.3% in 2022 but rise 1.9% in 2023.

The forecasters expect industrial production to increase 2.7% in the third quarter of 2022 and rise 1.4% in the fourth quarter of 2022. They forecast that industrial production will increase 4.9% in 2022 and rise 1.1% in 2023.

Nominal pretax corporate profits are expected to increase 2.7% in 2022 and 0.4% in 2023. The forecasters also project housing starts will be 1,610,000 in 2022 and 1,480,000 in 2023.

The most recent release of The Livingston Survey (the Survey) predicts GDP growth of 2.1% for the second half of 2022, which is a downward revision from the previously forecasted rate of 3.5% in the prior survey. The Survey, conducted by the Federal Reserve Bank of Philadelphia, is the oldest continuous survey of economists' expectations. It summarizes the forecasts of economists from industry, government, banking, and academia. The survey forecasts GDP growth of 2.3% in the first half of 2023. The forecasters predict a lower unemployment rate compared with their prior expectations. In June 2022, they forecast the unemployment rate will drop to 3.4% in December 2022 from the current rate of 3.6%, then rise to 3.5% by June 2023. The forecasters believe CPI inflation will be 7.6% for 2022 and 3.8% for 2023 while PPI inflation will be 13.2% for 2022 but drop significantly, to 4.2%, for 2023.

The Congressional Budget Office (CBO) provided its baseline economic forecast that is used as the basis for updating its budget projections for 2022 to 2032. In the report, published as of May 25, 2022, the CBO projects that, if current laws governing federal taxes and spending generally remain in place, the economy will grow modestly for the rest of the year. Real (inflation-adjusted) gross domestic product (GDP) is expected to grow at 3.1% by the fourth quarter of 2022 over the fourth quarter of 2021 and by 2.2% by the fourth quarter of 2023. The unemployment rate is projected to average 3.7% in 2022 and fall to 3.6% in 2023.

The CBO assumes in its forecast that many of the current disruptions in the supply chain, as well as many of the effects of pandemic-related demand for goods and services, will cause inflation to remain high through midyear 2022 and those effects will start to fade through 2023, staying above 2%, however, into 2024. The impact of price increases of food, energy, and motor vehicles are expected taper off in 2023.

The Federal Reserve published its summary of economic projections, which is released with the FOMC meeting minutes in June. For 2022, the Federal Reserve forecasts real GDP to increase by 1.7%, which is less than its prior forecast for growth of 2.8%. Real GDP is forecasted to grow by 1.7% in 2023 and by 1.9% in 2024. The unemployment rate is projected to be 3.7% for 2022, which is more than its earlier projection of 3.5%. Unemployment is expected to be at 3.9% in 2023 and 4.1% in 2024. The Federal Reserve forecasts PCE to be at 5.2% in 2022, higher than the previously projected rate of 4.3%, but it is expected to moderate to 2.6% in 2023 and 2.2% in 2024. Core PCE is forecasted to be 4.3%, more than the originally projected rate of 4.1% in 2022, before falling to 2.6% in 2023 and 2.3% in 2024.

The Energy Information Administration (EIA) predicts that the West Texas Intermediate crude oil spot price will average approximately $98.71 per barrel in 2022, down from $98.79 per barrel in the previous forecast, and fall to $89.13 per barrel in 2023, down from $89.75 per barrel forecasted in June. The average price for West Texas Intermediate crude in 2021 was $68.21 per barrel. The EIA expects retail prices for regular-grade gas to average $4.07 per gallon in 2022 and $3.59 per gallon in 2023, compared with $3.02 per gallon in 2021.

The EIA believes the Henry Hub natural gas spot price will average $6.80 per million Btu (MMBtu) in 2022 up from $6.02 per MMBtu in the previous forecast and drop to $5.10 per MMBtu in 2023, a 34-cent increase over the June forecast. The average Henry Hub natural gas spot price was $3.91 per MMBtu in 2021.

The cost of coal delivered to electricity-generating plants, which averaged $1.98 per MMBtu in 2021, is expected to average $2.21 per MMBtu in 2022 and $2.19 per MMBtu in 2023. Residential electricity prices, which averaged 13.72 cents per kilowatt-hour (kWh) in 2021, are expected to average 14.56 cents per kWh in 2022 then rise to 14.93 cents per kWh in 2023.

The airline ticket price index, which averaged $217.55 in 2021, is expected to be $288.30 in 2022, virtually unchanged from the previous forecast, before rising to $287.00 in 2023, a decrease of 0.9% from the June forecast.

The most recent three-year outlook from the Urban Land Institute (ULI) and Ernst & Young (EY), published in April 2022, found that real estate economists and analysts believe the economy, which was severely impacted in 2020, will continue to improve but at a slower rate than 2021 through 2024. The forecast also projects full recovery from the 9.4 million jobs lost in 2020 by adding 4.10 million jobs in 2022 to the 6.74 million jobs added in 2021. The forecast further projects job growth to continue by 1.87 million and 1.15 million jobs in 2023 and 2024, respectively. The *ULI/EY Real Estate Consensus Forecast,* a semiannual publication, is based on a survey of 43 of the industry's top economists and analysts representing 37 of the country's leading real estate investment, advisory, and research firms and organizations. The forecast for each indicator is the median forecast from the 43 survey respondents. The key findings from the *Real Estate Consensus Forecast* include:

- U.S. commercial real estate transaction volumes totaled $846 billion in 2021, a historic high, and are forecast to be $800 billion in 2022, $725 billion in 2023, and $750 billion in 2024, all well above the actual pandemic-year low of $431 billion in 2020.
- Commercial property prices rose by 19.5% in 2021 and are projected to rise by 10.0% in 2022, then 6.0% in 2023, and 5.9% in 2024. The index rose by 5.2% in 2020.
- Office vacancy rates are predicted to rise to 16.6% in 2021, following a weak 2020. Vacancy rates will continue at an elevated level through 2024.
- Single-family housing starts are projected to be 1.2 million in 2022, consistent with expected units just six months ago. In 2023 and 2024, it is estimated there will be 1.25 million and 1.1 million new starts, respectively.
- National Council of Real Estate Investment Fiduciaries (NCREIF) total returns, which were positive for 11 consecutive years, finished at a strong 17.7% in 2021, up from the 4.5% predicted six months ago. Total returns are predicted to be 10.0% in 2022, 8.0% in 2023, and 7.0% in 2024. The 2022 total returns forecast range by property type; the range was from industrial, at 20.0%, to retail, at 5.4%.
- In 2021, the vacancy/availability rates for apartments dropped to 2.5%. Vacancy rates are expected to remain very low in 2022, at 2.5%, then increase slightly, to 2.7%, in 2023 and 2.9% in 2024.
- Commercial property rent growth differs widely by property type. In 2022, industrial is predicted to lead all property types in rent growth over the forecast period, averaging 5.5%, then dropping slightly in 2023 and 2024. Apartment rent growth will average 5.3% in 2022, then also moderate in the forecast years 2023-24. Annual retail rent growth will average 2.0% over the forecast years, while rent for office space will grow 1.4% on average. For hotels—which track revenue per available room (RevPAR), combining rental rates and occupancy—growth will average 19.4% in 2022, 10.0% in 2023, and 5.0% in 2024. This follows a stellar positive growth rate of 58.4% in 2021, bouncing back from a 47.4% decline in 2020.

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SOURCES FOR STATE ECONOMIC INFORMATION

A current list of sources for state economic information can be found at: news.bvresources.com/EOU/eouIssues.aspx. Login is required.

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