

Q2

Economic & Market Review
Second Quarter 2022

Economic Review

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US Economy Strong But Slowing

The US economy contracted at a 1.6% annualized rate in the first quarter, driven by a surge in the trade deficit and a drop in government stimulus. However, consumer spending and business investment, the two largest components of GDP, rose in the first quarter, indicating areas of core strength despite the headline number. Consumer spending cooled in April and May, suggesting a broader potential slowing ahead.

Employers added 372,000 jobs in June, handily beating estimates. The headline unemployment rate remained unchanged at a historically low 3.6%. If the US is soon deemed to be in a recession, it will be a most unusual one in light of the robust employment picture.

The manufacturing sector grew at its slowest pace in two years in June. Shortages of supplies and labor contributed to the slowdown, and increasing prices and excess inventory caused customers to scale back orders. Despite the lackluster outlook for the sector, an “overwhelming majority” of companies indicated in a recent survey that they are hiring.

Existing home sales dropped to a two-year low and housing starts fell to a 13-month low in May. A spike in mortgage rates and sharply higher home prices both crimped affordability, while the number of homes for sale remained low. The median US home sale price recently topped \$400,000 for the first time.

Fed Ramps Up Interest Rate Hikes

The Federal Reserve raised its key interest rate by 0.75% in its latest meeting, the largest interest rate hike since 1994, as it combats high inflation.

Fed officials expect the federal funds rate to reach 3.4% by year-end, representing a 1.9% rise from current levels. **Updated projections show considerably slower economic growth**, with estimated 2022 GDP growth reduced to 1.7% from 2.8% in the March forecast.

Fed Chair Powell conceded that achieving a soft landing is looking more challenging because of external inflationary factors beyond the Fed’s control, such as supply chain issues and impacts of the war in Ukraine. Still, the Fed sees no signs of a sharp economic slowdown, as labor markets and overall spending remain strong.

Economic Review

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A Cloudy Forecast for Europe; Japan's Economy Shrinks

The Eurozone economy expanded 0.6% in the first quarter, supported by robust exports. However, Europe's outlook is uncertain as the war in Ukraine exerts sharp upward pressure on energy prices.

For the first time in more than a decade, the European Central Bank (ECB) expects to hike interest rates in July by 0.25%. High levels of inflation are prompting the ECB to follow the Fed's lead, with ECB President Christine Lagarde vowing to allow rates to move as high as is necessary to bring inflation under control.

According to the latest ECB forecasts, **the risk of stagflation (high inflation accompanied with low or negative growth) remains low** despite the emerging risks.

Japan's economy contracted 0.1% in the first quarter, weighed down by rising imports. Economists believe the second quarter will show growth, but a declining yen and the effects of China's Covid-related lockdowns will dampen economic activity.

China Grappling with Covid Lockdowns; India and Brazil Emerging from Pandemic

China's economy grew by 4.8% in the first quarter but lost momentum early in the second quarter amid widespread Covid lockdowns. Retail sales and industrial production dropped sharply in April and the housing market is particularly depressed. Economic activity picked up late in the quarter as Covid case counts fell, but the threat of further lockdown measures looms as mass-testing resumed in Beijing and Shanghai in mid-June. Growth is expected to slow this year due to the strict lockdown measures, a cooling property market, and slowing export growth.

India's economy picked up steam in the first half of the year and surpassed its pre-pandemic level. Industrial production picked up in April and looser Covid restrictions boosted consumer demand. The outlook for the remainder of the year is positive, but high inflation and rising interest rates could cap momentum.

Brazil's economy grew 1.0% in the first quarter. Consumer spending and services activity picked up as the impacts of the pandemic receded; the unemployment rate dipped to single digits for the first time since 2016.

Market Review: Stocks

Second Quarter 2022

Stock Market Decline Accelerates in Q2, Reaching Bear Market Status

The second quarter of 2022 proved highly challenging for US and global markets, as **high inflation, rising interest rates, and the war in Ukraine fanned recession concerns and spooked investors**, sending stocks tumbling globally.

US large cap stocks, as measured by the S&P 500 stock index, **declined 16.1% in the second quarter and are down 20.0% for the year-to-date through June**, the market's worst first half in more than 50 years.

Some of the highest flying sectors over the last couple years were the hardest hit on the quarter, with Consumer Discretionary (down 25.5%) and Technology (down 19.7%) among the worst performers. **Every S&P sector declined in Q2** (even Energy), **with the recession-resistant Consumer Staples** (down 4.0%) **and Utilities** (down 5.1%) **sectors performing best**.

Mid and small cap US stocks fared even worse than large cap stocks, with the Wilshire 4500 stock index declining 19.9% on the quarter. Year-to-date, extended markets have shed 25.9%, or more than a quarter of their value. **Smaller companies tend to be more sensitive to changes in the economy**, suggesting recession concerns are weighing on mid and small cap stocks.

International developed and emerging markets stocks also declined amid the global pullback, but outperformed US stocks, with the MSCI EAFE index falling 14.3% (down 19.3% year-to-date) and the MSCI Emerging Markets index dropping 11.3% (down 17.5% year-to-date). The outperformance is noteworthy considering that the US dollar remained strong in Q2 (up 5.0%), which creates headwinds for international stocks.

Market volatility climbed over the quarter as markets tumbled, with the VIX volatility index rising from about 20 to 28 at quarter-end and reaching 34 on two occasions. Volatility was relatively subdued given the carnage in the market, consistent with an orderly decline.

Returns for the Quarter (%)

US Large Cap Stocks	-16.10	
US Mid/Small Cap Stocks	-19.88	
International Developed Stocks	-14.29	
Emerging Markets Stocks	-11.34	
Global Stocks	-15.53	

Period Returns (%)

* Annualized

Asset Class	YTD	1 Year	3 Years*	5 Years*
US Large Cap Stocks	-19.96	-10.62	10.60	11.31
US Mid/Small Cap Stocks	-25.88	-25.94	6.75	7.66
International Developed Stocks	-19.25	-17.33	1.54	2.69
Emerging Markets Stocks	-17.47	-25.00	0.92	2.55
Global Stocks	-19.97	-15.37	6.71	7.54

Past performance is not a guarantee of future results. Returns for periods longer than one year are annualized. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Market segment (index representation) as follows: US Large Cap (S&P 500 Index), US Mid/Small Cap (Wilshire 4500 Completion Index), International Developed (MSCI Europe Australasia Far East Index), Emerging Markets (MSCI Emerging Markets Index), and Global Stocks (MSCI All Country World Index). Growth of \$1,000 chart market segmentations as follows: US Stocks (Wilshire 5000 Index) and Foreign Stocks (All Country World Index ex US)

Market Review: Bonds

Second Quarter 2022

Bonds Fall as a Hawkish Fed Raises Rates to Slow Inflation

US government bond yields rose to their highest level in four years as the Fed implemented a series of rate hikes to curb inflation. The Fed increased its lending rate from 0.25% to a range of 1.50%-1.75% over the quarter, with a 75 basis points raise in June marking the largest single rate hike since 1994. Portions of the yield curve inverted again as short-term interest rates rose above long-term rates, reflecting concerns that a recession could follow. The US 10-year Treasury rose from 2.32% on March 31 and reached a high of 3.49% in June before finishing the quarter at 2.98% amid growing recession concerns. The 2-year Treasury yield moved from 2.28% to 2.92%.

Bonds extended losses for another quarter with the Bloomberg Aggregate Bond index down 4.7%. The second quarter marked a volatile period, with bond prices declining as yields rose in the face of Fed tightening and high inflation. Long-term bonds are particularly sensitive to rising interest rates and took the biggest hit.

The selloff in the bond market was driven by a change in expectations of the Fed's hiking path, as the Central Bank increased rates more rapidly than the market had anticipated. In June, US inflation data continued to run at its highest level in over 40 years, dashing hopes that inflation had peaked in the first quarter. Rising yields and a hawkish Fed translated into losses across the bond market. Bonds rallied towards quarter-end as recession concerns mounted, moderating the quarter's losses.

High-yield bonds dropped on recession fears. Treasury Inflation-Protected Securities (TIPS) gave up ground due to both higher interest rates and lower inflation expectations. US high yield bonds were among the worst performers, losing 9.8% over the quarter, as the risk of defaults rose with recession worries. TIPS fell 6.1% in the quarter.

The selloff for tax-exempt municipal bonds continued.

Yields also climbed in the tax-exempt bond market, resulting in a 2.9% decline in the main muni index in the second quarter.

Returns for the Quarter (%)

US Total Bond Market	-4.69
Short-Term Investment Grade Bonds	-1.14
Long-Term Investment Grade Bonds	-12.27
Municipal Bonds	-2.94
Mortgage-Backed Bonds	-4.01
Treasury Inflation-Protected Bonds	-6.08
Foreign Bonds	-12.50

Period Returns (%)

Asset Class	YTD	1 Year	3 Years*	5 Years*
US Total Bond Market	-10.35	-10.29	-0.93	0.88
Short-Term Investment Grade Bonds	-4.55	-5.20	0.12	1.08
Long-Term Investment Grade Bonds	-21.88	-20.14	-2.32	1.03
Municipal Bonds	-8.98	-8.57	-0.18	1.51
Mortgage-Backed Bonds	-8.78	-9.03	-1.44	0.36
Treasury Inflation-Protected Bonds	-8.92	-5.14	3.04	3.21
Foreign Bonds	-18.74	-21.92	-6.72	-2.62

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Market Review: Alternatives

Second Quarter 2022

No Place to Hide in Q2, as Energy, Commodities, REITs, and Gold All Move Lower

Alternative investments failed to provide much diversification benefit in the second quarter, with all asset classes declining.

US energy stocks and commodities cooled off from their scorching Q1 start, declining 5.3% and 5.7%, respectively, in the second quarter. Despite their quarterly declines, both asset classes are still up strongly for the year, with energy stocks rising 31.8% in 2022 and commodities up 18.4%. High global inflation and energy supply issues related to the war in Ukraine have been the key drivers, however recession concerns may be starting to weigh on the assets.

Real estate investment trusts (REITs) continue to struggle in 2022 and have been getting pummeled by the one-two punch of rising interest rates and the potential for recession. For the quarter, REITs declined 17.0% and have fallen 20.3% year-to-date. REITs are particularly susceptible to rising interest rates, as it increases borrowing costs, while also making other income-focused investments look relatively more attractive.

Gold gave back most of its first quarter gain, dropping 6.4% in Q2, even amid high inflation and a slowing economy, conditions which can be supportive of the precious metal. One negative was the strong US dollar, which continued its ascent in the second quarter and has risen 5.0% year-to-date.

The Fed's aggressive rate hikes also may be putting a damper on gold, bringing down the prospect of inflation while increasing the attractiveness of other safe havens, such as Treasury bills.

Returns for the Quarter (%)

US Real Estate Investment Trusts	-16.95	
US Energy Stocks	-5.26	
Commodities	-5.66	
Gold	-6.44	

Period Returns (%)







* Annualized

Asset Class	YTD	1 Year	3 Years*	5 Years*
US Real Estate Investment Trusts	-20.32	-6.41	4.03	5.30
US Energy Stocks	31.76	39.21	10.39	7.20
Commodities	18.44	24.27	14.34	8.39
Gold	-0.17	3.05	9.67	8.39

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Market Summary

Index Returns

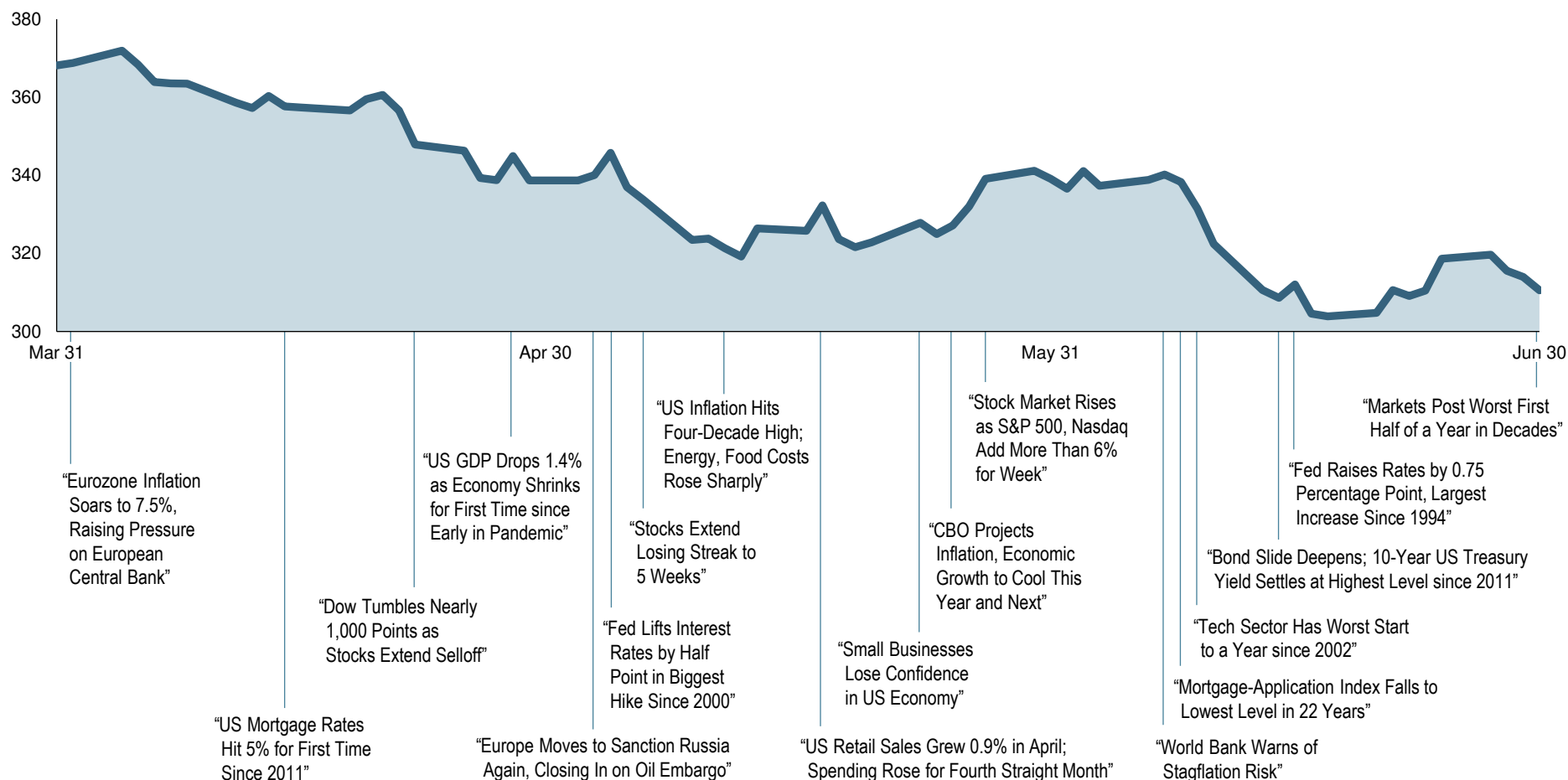
	US Large Cap	US Mid/Small Cap	International Developed	Emerging Markets		US Bond Market	US Dollar
Q2 2022	STOCKS					BONDS/DOLLAR	
	-16.10%	-19.88%	-14.29%	-11.34%		-4.69%	4.95%
							

Since Jan. 2001							
Avg. Quarterly Return	2.1%	2.7%	1.4%	2.4%		1.0%	0.4%
Best Quarter	20.5% Q2 2020	30.3% Q2 2020	25.8% Q2 2009	34.8% Q2 2009		4.6% Q3 2001	7.1% Q1 2020
Worst Quarter	-21.9% Q4 2008	-27.9% Q1 2020	-22.7% Q1 2020	-27.6% Q4 2008		-5.9% Q1 2022	-5.8% Q2 2009

Past performance is not a guarantee of future results. Indices are not available for direct investment. Index performance does not reflect the expenses associated with the management of an actual portfolio. Market segment (index representation) as follows: US Stock Market (Russell 3000 Index), International Developed Stocks (MSCI World ex USA Index [net div.]), Emerging Markets (MSCI Emerging Markets Index [net div.]), Global Real Estate (S&P Global REIT Index [net div.]), US Bond Market (Bloomberg US Aggregate Bond Index), and Global Bond Market ex US (Bloomberg Global Aggregate ex-USD Bond Index [hedged to USD]). S&P data © 2022 S&P Dow Jones Indices LLC, a division of S&P Global. All rights reserved. Frank Russell Company is the source and owner of the trademarks, service marks, and copyrights related to the Russell Indexes. MSCI data © MSCI 2022, all rights reserved. Bloomberg data provided by Bloomberg.

World Stock Market Performance

MSCI All Country World Index with selected headlines from Q2 2022



These headlines are not offered to explain market returns. Instead, they serve as a reminder that investors should view daily events from a long-term perspective and avoid making investment decisions based solely on the news.

Graph Source: MSCI ACWI Index [net dividends]. MSCI data © MSCI 2022, all rights reserved.

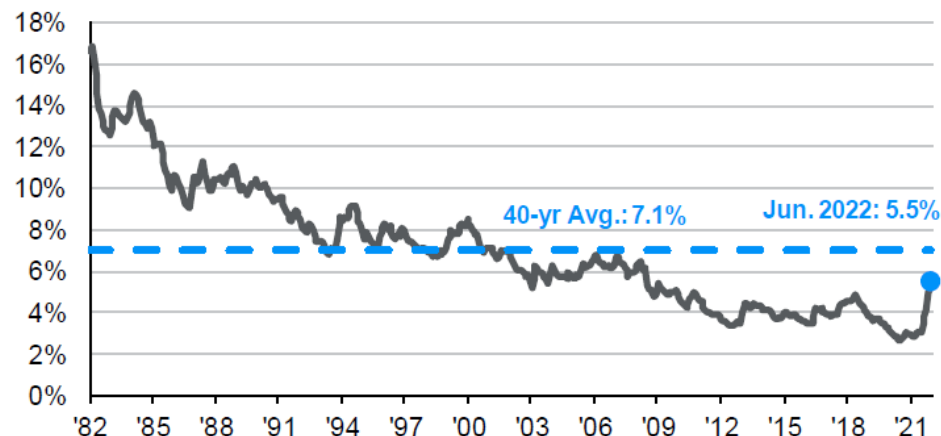
It is not possible to invest directly in an index. Performance does not reflect the expenses associated with management of an actual portfolio. **Past performance is not a guarantee of future results.**

Residential Real Estate

Second Quarter 2022

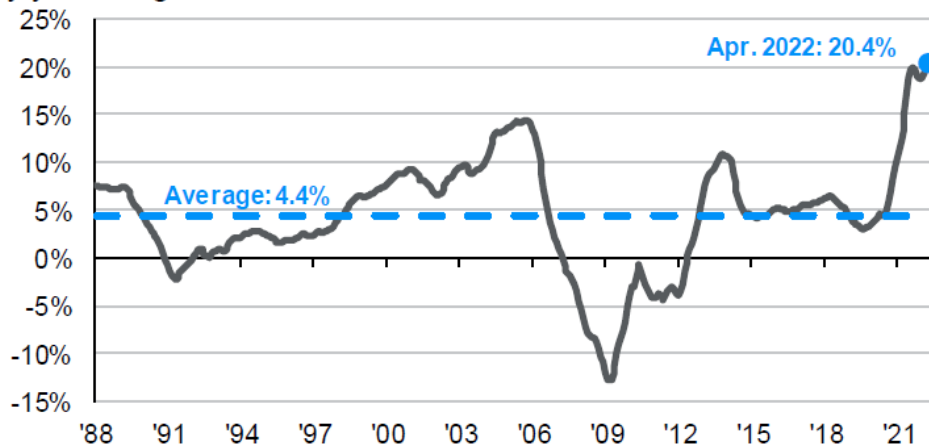
Average interest rate on a U.S. mortgage

30-year fixed-rate mortgage



Home prices

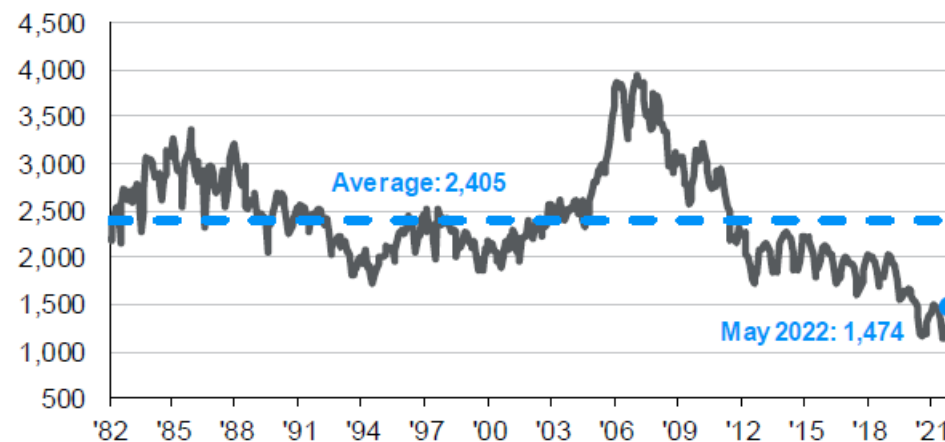
y/y % change in Case-Shiller Home Price Index



Home prices soared during the pandemic (bottom left chart), thanks to historically low mortgage rates (top left chart) and a general surge in all asset prices. The recent spike in mortgage rates (top left chart) this year could cool the housing market, but with housing inventories near all-time lows (bottom right chart), the path for home prices is less clear.

Housing inventories

Inventory of new and existing single family homes for sale, thous, NSA



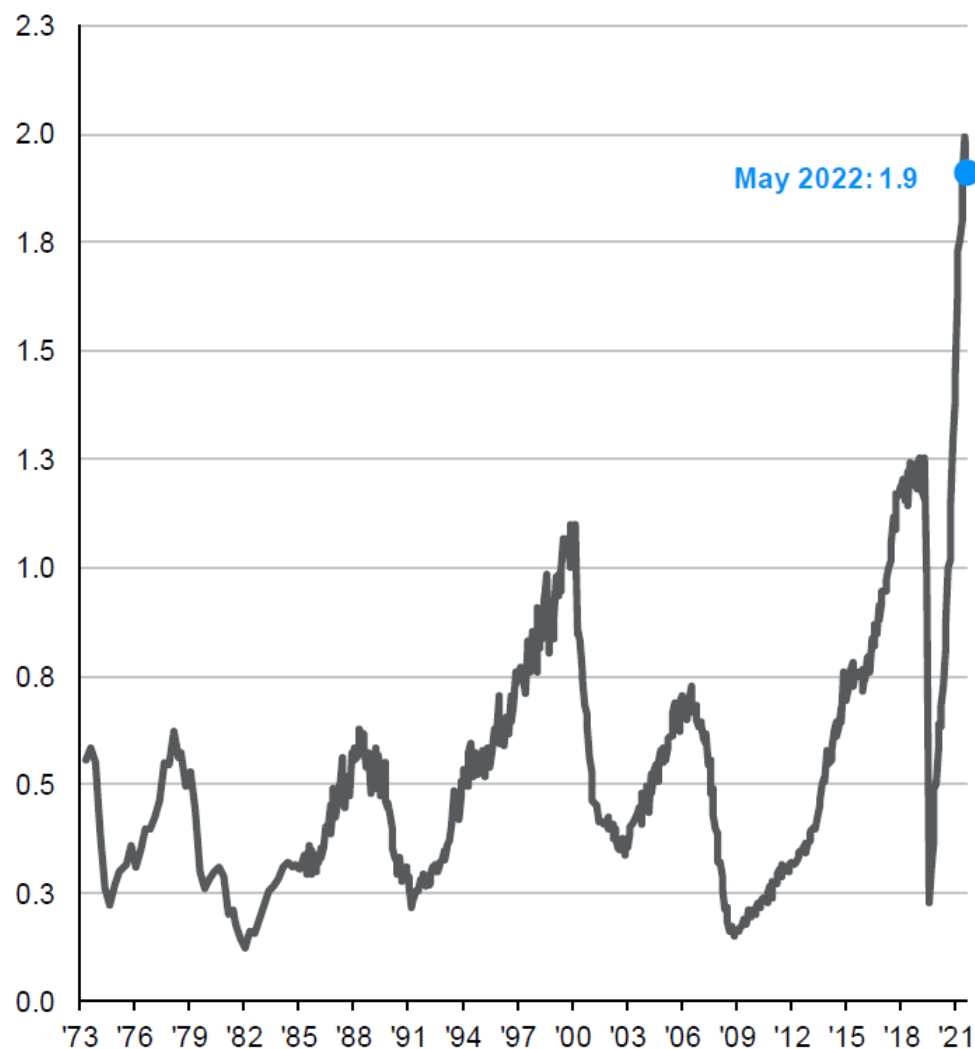
Source: J.P. Morgan Asset Management; Factset; Freddie Mac; Census Bureau National Association of Realtors; S&P/Case Shiller. Monthly mortgage payment assumes the prevailing 30-year fixed-rate mortgage rates and average new home prices excluding a 20% down payment. *Guide to the Markets* – US Data are as of June 30, 2022.

Labor Demand

Second Quarter 2022

Ratio of job openings to job seekers

Job openings* lagged 1 month divided by unemployed persons, SA



This chart illustrates the extreme tightness of the US labor market coming out of the pandemic. Ordinarily, there are more job seekers than openings. Today that relationship is reversed at an almost 2-to-1 ratio. The demand for labor has far outpaced supply. Workers are quitting at a record pace, as they feel emboldened to seek better job opportunities. Likewise, unemployment rates and layoffs are near all-time lows as employers seek to retain workers.

Source: U.S. Department of Labor, J.P. Morgan Asset Management. *Guide to the Markets* – US Data are as of June 30, 2022.

Price of Oil

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Price of oil

WTI crude, nominal prices, USD/barrel



This chart shows the price of crude oil over the past two decades. An increase in global supply in recent years pushed down prices, and the abrupt drop in global economic activity at the start of the pandemic caused prices to bottom out in early 2020. Pent-up demand from the subsequent reopening of economies worldwide pushed up oil prices, and the recent supply shock from the war in Ukraine caused prices to spike further.

High prices should incentivize greater production, but it will take time for the US, OPEC, and other oil producers to fill the gap left by Russia and bring prices down. With a potential recession looming, a drop in demand for oil could also bring down prices.

Source: J.P. Morgan Asset Management. *Guide to the Markets* – US Data are as of June 30, 2022.