

REAL ESTATE

Spring 2022 Real Estate Outlook:

Ukraine, Inflation, and Energy Prices

Key Takaways:

- The war in Ukraine will not hamper the outlook for the U.S. economy, though this view is predicated on the duration and scope of the war.
- Inflation is generally positive for real estate investors but also magnifies risks; foremost stemming from upcoming Federal Reserve actions.
- Higher energy prices could be modestly positive for real estate investments in markets like Houston, Denver, and Dallas, but is negative for consumer sentiment.
- The labor market outlook is improving with strong gains in payrolls and the labor force participation rate; something that should increase real estate demand.



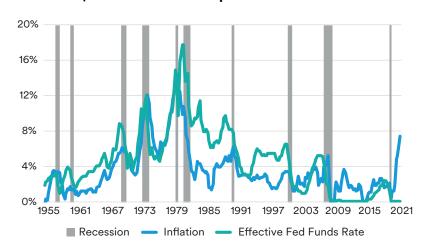
Complicating Factors

There were many macroeconomic risks we considered in our 2022 Real Estate Investment Outlook published just three months ago, but war in Europe was not one of them. While we are hopeful that this conflict will quickly come to an end, there are several commercial real estate considerations in the meantime.

The war is worsening pandemic-related supply shocks, increasing the prospect of higher and more persistent inflation. Russia is one of the world's largest exporters of many critical food and energy commodities. Russia and Ukraine together export 30% of world's wheat, a staple food product for over 35% of the world's population¹. The list of impacted items goes well beyond food and energy and spills into autos, consumer packaged goods, paper products and more. These disruptions will mean that inflationary pressures are likely to remain elevated this year. Even if hostilities end in the near-term, it will be a long time before exports and trade relations return to pre-war levels, in our view.

Supply-chain driven inflation further complicates the role of the Federal Reserve. Monetary policy is most effective at managing inflation during times of rapid economic expansion (when aggregate demand is outpacing aggregate supply). In these cases, the Fed is better able to manage inflation without causing a recession, as it did in the mid-1960s and mid-1990s. When inflation is driven by supply shocks, as it was following the late 1970s oil crisis, the Fed's job becomes more complicated.

Exhibit 1 | Historical Fed Response to Inflation



Sources: MIM, Moody's. Inflation represents CPI-U.

Treasury market pricing indicates a hawkish course of monetary tightening this year. The Fed Funds Futures market now shows the target Fed Funds rate at 2.7% by year-end, up from 1.5% expected in February.

In our view, the Federal Reserve will implement fewer rate hikes than the market is anticipating. First, anti-inflation rhetoric from policy makers has already had the effect of tightening financial conditions which could slow inflation. Additionally, policy makers may view the risk of higher inflation as subordinate to the risk of a recession caused by higher interest rates, especially during an ongoing geopolitical crisis and COVID recovery. Finally, the U.S. national debt is ballooning to a point where high inflation and lower rates are becoming increasingly difficult for U.S. policy makers to manage. As we wrote in *Real Estate and Reflation in 2018:*

...U.S. federal debt is now near the highest level in history, which was last reached as a result of World War II. Going forward, there are five ways to manage this: default on the debt, accelerate economic growth, raise taxes, cut spending, or allow inflation to rise. The U.S. used all but the first option to reduce World War II debt, with the 1950s-70s marked by population growth driving economic growth, an average top marginal income tax rate of around 75% (compared to 37% today), slowing government spending after the war ended, and inflation rising to an average 7% per year by the 1970s (compared to about 2% today).

Considering these options, slightly higher inflation may be one possible outcome amongst a field of unlikely outcomes. Economic growth would be the best option but without a significant change in immigration policy, or an unexpected boost in productivity, today's economy is unlikely to match growth rates of the 1950s-70s. Meaningful tax increases or spending cuts also seem unlikely in the current political environment. In the long run, The Federal Reserve may therefore find themselves in a position of balancing an interest-payment-stressed budget deficit (and potential additional U.S. Treasury rating downgrades) with allowing for higher inflation.

One of the three major credit rating agencies has already downgraded U.S. Treasury debt from "AAA," and a high interest rate environment would cause national debt service to increase, potentially risking further rating agency downgrades which could also push the economy into recession. This is something the U.S. monetary and fiscal policy makers would seek to avoid. Conversely, a high inflation/low-rate policy could have the dual effect of reducing inflationadjusted national debt, while keeping debt service payments low, reducing the risk of recession from rating agency downgrades.

As a result of these and other factors, we expect inflation will continue to run modestly above the Fed's long-term 2% target and expect the 10-year Treasury rate will end the year below the current

Exhibit 2 | Real Estate Returns Historically
Close to Cap Rate Plus Inflation



Sources: MIM, Moody's, NCREIF. 1978-2021 average.

2.8%. As shown in Exhibit 2, real estate returns have been approximately equal to the income return plus the rate of inflation. As such, and as noted in our 2022 Real Estate Investment Outlook, higher inflation would generally be positive for real estate.

Should interest rate hikes exceed our expectations, there are several market dynamics to consider. First, assets with very long lease terms might experience negative price pressure, given these assets cannot as quickly capture the benefits of higher inflation (and in April of 2022 we tracked a for-sale grocery anchored center being negotiated at a price below where it likely would have traded three months prior). Second, high-growth sectors like infill distribution centers are increasingly in a negative leverage position, where going-in cap rates are below mortgage coupons. Many lenders have year-1 debt yield / DSCR tests that are requiring borrowers to accept lower proceeds or pay a higher rate. Finally, we believe some lenders are shifting focus from fixed to floating rate loans and have already observed the cost of fixed rate debt rising faster than floating rate debt in recent months.

Energy in Focus

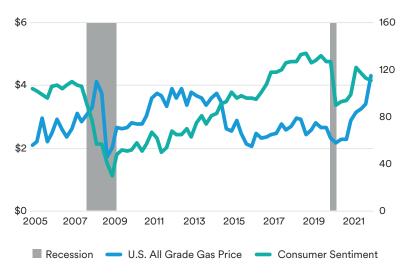
Although higher inflation is generally beneficial for commercial real estate investors, higher energy prices can be a double-edged sword. Elevated energy prices have negative effects for real estate, especially if the war and resulting higher energy prices drag on for longer than the next 3-4 months.

When gasoline becomes more expensive, consumers sometimes feel worse about the future (Exhibit 3) and spend less. Gasoline prices have been rising in recent weeks, but higher gas prices predate the war in Europe. The average price per gallon of gas in the U.S. has risen from the trough of \$1.96 in mid-2020 to around \$4.40 today, the highest nominal level on record.² We believe this price difference is reducing consumer spending by around \$90 per month, or 2.2% of monthly per capita

consumer spending.³ The impact to consumer spending could become more negative should energy trade disruptions persist into next winter, when consumers will feel the additional burden of higher prices of oil and natural gas used to heat their homes.

Consumer spending makes up nearly two thirds of U.S. economic activity⁴, so small changes in consumption can have large impacts on economic growth. So far, consumer sentiment has only modestly declined, but if it falls much further, we believe it could serve as a leading indicator to broader economic distress.

Exhibit 3 | Consumer Sentiment and Gasoline Prices



Sources: MIM, Conference Board, U.S. Energy Information Administration.

Additionally, the potential for higher energy prices to lead to higher real estate operating expenses is also worth considering. However, we estimate that energy only accounts for 5-10% of operating expenses, and most energy expenses are contractually paid by the tenant (not the building owner), so the direct and immediate impact of higher energy costs on property net operating income would likely be moderate.

Contrary to these headwinds from energy price inflation, there are some positive implications.

Higher energy prices could have a positive impact on most property types across a set of U.S. metropolitan areas dependent on the energy sector, especially if energy producers believe that the U.S. is permanently reducing dependence on Russian oil and gas. These include markets like Houston, Dallas, and Denver, which experienced softening real estate fundamentals when energy prices slumped between 2015-2020.⁵ In addition to these core energy markets, metros like San Francisco, Boston, San Diego, Boulder, Colo. and Reno, Nev., which employ an outsized share of their workforce in the clean energy sector⁶, could benefit from an acceleration in energy sector growth given a renewed sense of urgency for the U.S. to achieve energy independence.

Lastly, energy costs are inputs to development costs, and higher energy prices could contribute to a continued thinning of development returns that has been ongoing since inflation started rising last year. If development returns decrease, so too would the new supply pipeline, benefitting owners of commercial real estate by helping to keep supply and demand in balance.



Capital Market Shifts

While we are not currently expecting material negative impacts to the U.S. economy from the war in Ukraine, the outlook for Europe is less sanguine. This is primarily because European economies are more reliant on Russian energy than the U.S. Additionally, the prospect of further military escalation into Western Europe (unlikely as it may be) further elevates uncertainty, especially as countries add to their fiscal pressures by raising defense budgets.

A less certain economic outlook in Europe could dampen the amount of capital targeting European real estate, and slightly boost the amount of capital targeting U.S. real estate, although we don't believe that is being reflected in the capital flow data thus far. Western Europe accounts for around 15% of global real estate transaction volume. The U.S. accounts for around 35%, and APAC countries make up around another 40%. As such, there is some upside risk to the view we outlined in our 2022 outlook report that transaction volume will exceed the 2021 level by 10%.

Conclusion

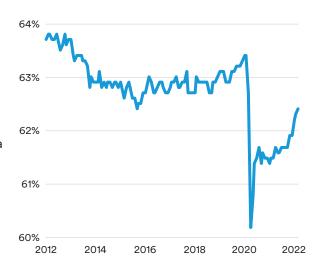
Forecasting the path of the Ukraine war and related trade frictions requires a healthy degree of humility, allowing for a range of outcomes. Downside scenarios could include direct contact between a NATO country and Russia, a Russian debt default that has ripple effects across the credit curve, further shifts in global energy policies, and more volatility in inflation and interest rates, to name a few.

Thus far, we do not believe the war in Ukraine poses a material risk to the U.S. economy or U.S. commercial real estate investments. Real estate investments tend to benefit from higher inflation and, so far, property income growth is generally keeping pace or exceeding the rate of inflation. In addition, a combination of ending government stimulus, rising wages, and better availability of childcare (including return to schools) appears to finally be pulling individuals back into the labor force (see Exhibit 4), which should further drive real estate demand.

Compared to our last update three months ago, we increased our forecast for 2022 commercial real estate property price growth from 11% to 14%. This is primarily driven by increased inflationary pressures, stronger property income growth than expected, better than expected readings in labor force participation, and better than expected office leasing.

Despite the higher rate environment, we are not changing our cap rate forecasts for the year, which still call for modest compression in the apartment and industrial sectors, and no material change in the office and retail sectors. A summary of our forecasts is provided in Exhibit 5.

Exhibit 4 | Labor Force Participation Rate



Sources: MIM, BLS.

Exhibit 5 | Forecast Summary

	2021	2022 Projection
GDP Growth	5.5%	3.8%
Unemployment Rate	3.9%	3.5%
NCREIF Market Value Index	14%	11% 14%
Apartment Cap Rate	3.7%	3.4%
Industrial Cap Rate	3.3%	3.0%
Office Cap Rate	4.3%	4.3%
Retail Cap Rate	4.9%	4.9%
Transaction Volume	\$808B	\$890B

Sources: MIM, NCREIF, RCA, BEA, BLS. April 2022.

Endnotes

- ¹ USDA. April 2022.
- ² U.S. Energy Information Administration. April 2022. Pre-COVID peak for All Grade All Formulations occurred in May 2019.
- ³ Annual Consumer Spending St. Louis Fed. Assumptions for estimating impact of higher gas prices on consumer spending MIM, Edelstein and Kilian, Journal of Monetary Economics, 2009.
- ⁴ Bureau of Economic Analysis. April 2022.
- ⁵ MIM, CBRE-Econometric Advisors, Moody's. April 2022.
- ⁶ Clean Jobs America 2021, E2. April 2021.
- ⁷ Real Capital Analytics. 4Q 2021

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Appendix

This appendix contains details for the preceding charts and provides additional information for greater accessibility.

Historical Fed Response to Inflation

Note:

- All values are approximate
- Inflation represents CPI-U
- Recession indicated on the graph over the following approximate periods:
 - o 1957
 - o 1959
 - o 1969
 - 0 1973
 - 0 1979
 - 0 1981
 - o 1989
 - o 2000
 - o 2007
 - o 2020
- The "Inflation" line has the following characteristics:
 - 1955 to 1980: Sharp rise to about 3.50% in 1956, then sharp decline to about 0.50% in 1959, then gradual rise followed by moderate to sharp rise to about 5.90% in 1969, then sharp decline to about 5.00% in 1976, then sharp rise to the 12.0% to 15.0% range (this line hidden by the other line) in 1980.
 - 1980 to 2021: Sharp decline to about 2.50% in 1983, then gradual decline with significant variation of about 4.60%, then sharp rise in 2019 to the 2021 value of 7.35%.
- The "Effective Fed Funds Rate" line has the following characteristics:
 - o 1955 to Mid-1980: Level, with wide variation of about 2.70% to 1961, then moderate rise to 1967, then sharp rise to about 8.60% in 1969, then sharp decline to about 3.70% in 1971, then sharp rise to about 12.00% in 1974, then sharp decline to about 8.60% in mid-1982, then moderate decline with large variation of about 5.40%.
- Source: MIM, Moody's

Year	Inflation	Effective Fed Funds Rate
1955	0.00%	1.95%
1961	1.08%	1.95%
1967	2.59%	3.89%
1973	6.59%	9.62%
1979	11.46%	11.03%
1985	3.46%	8.00%
1991	3.35%	5.30%
1997	2.05%	5.51%
2003	1.95%	0.97%
2009	1.08%	0.11%
2015	0.76%	0.22%
2021	7.35%	0.11%

Consumer Sentiment and Gasoline Prices

Note:

- All values are approximate
- Recession indicated on the graph over the following approximate periods:
 - o 2008 to 2009
 - o 2020
- The "U.S. All Grade Gas Price" line has the following characteristics:
 - o 2005 to Early-2009: Moderate rise, then sharp rise to about \$4.10 in 2008, then sharp decline to about \$1.80 in late-2008, then sharp rise to about \$3.60 in early 2009.
 - Early-2009 to 2016: Moderate rise to about \$3.73 in early 2011, then level with variations of about \$0.50 to 2014, then moderate to sharp decline to about \$2.10 in 2016.
 - 2016 to 2021: Gradual rise to about \$3.00 in 2018, then gradual decline to about \$2.20 in 2020, then sharp rise to \$2.97 in 2021.
- The "Consumer Sentiment" line has the following characteristics:
 - o 2005 to 2009: Gradual rise to 110 in 2007, then sharp decline to 32 in 2009
 - 2009 to 2022: Moderate rise to about 134 in late-2018, then slight decline followed by sharp decline to about 90 in 2020, then moderate rise followed by sharp rise to about 120 in early 2021, then moderate decline to about 110 in 2022.
- Source: MIM, Conference Board, U.S. Energy Information Administration

Year	U.S. All Grade Gas Price	Consumer Sentiment
2005	\$2.11	104
2007	\$2.63	110
2009	\$2.00	32
2011	\$3.64	65
2013	\$3.77	65
2015	\$2.63	100
2017	\$2.45	118
2019	\$2.60	127
2021	\$2.97	104

Labor Force Participation Rate

Note:

- All values are approximate
- The line has the following characteristics:
 - o 2012 to 2014: Moderate decline to 62.92% in 2014
 - 2014 to late-2018: level with small variation to early-2015, then moderate to sharp decline to about 62.45% in mid-2015, then moderate to sharp rise to about 63.00% in early-2016, then level with variation of about 0.38%.
 - Late-2018 to 2022: Moderate rise to 2020, with variation of about 0.40% to 2020, then sharp decline to about 60.20% in early 2020, then sharp rise to about 61.70% in mid-2020, then slight decline followed by moderate rise to 61.70% in late-2021, then sharp rise to about 62.40% in early 2022.

• Source: MIM, BLS

Year	Participation Rate
2012	63.77%
2014	62.92%
2016	62.78%
2018	62.98%
2020	63.41%
2022	62.19%