THE BENEFITS OF DIRECT REAL ESTATE

IN AN INFLATIONARY ENVIRONMENT

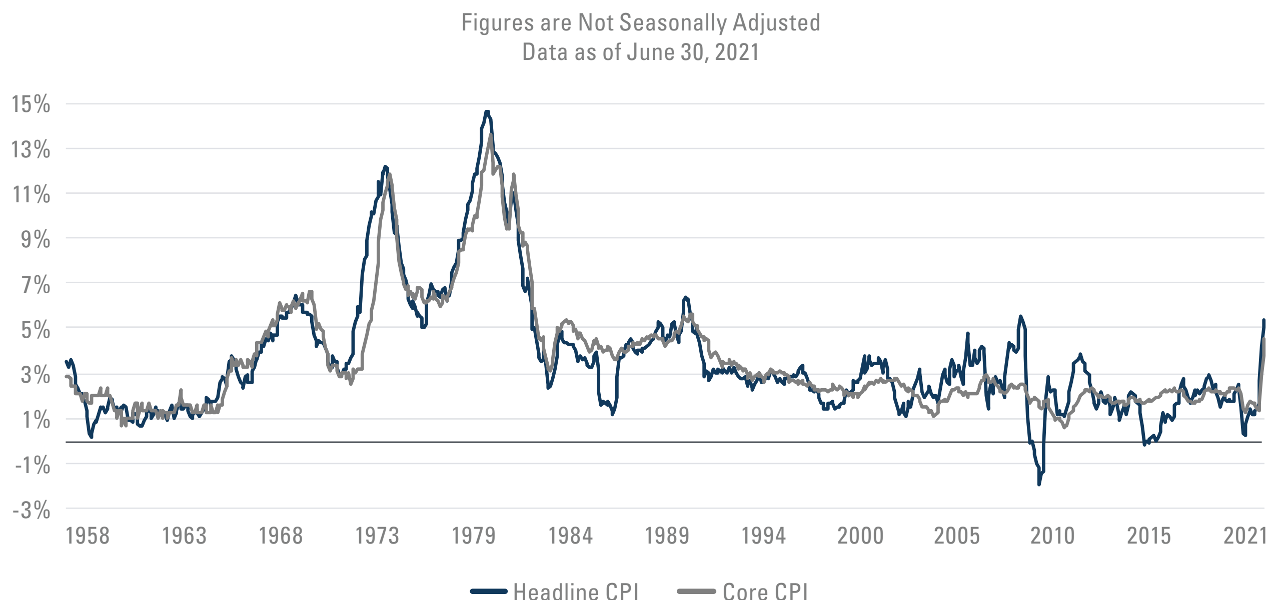
JULY 2021

Sound the Alarm! Inflation is Finally Here

In the wake of COVID-19, as the Federal Reserve undertook unprecedented stimulus measures, there has been a renewed focus among market participants on the prospect of inflation in the U.S. Notable value investor, Howard Marks, discussed inflation in his latest memo writing, "because the primary risk lies in the possibility of rising inflation and the higher interest rates that would bring, I think portfolios have to make allowances: even though we can't predict, we should prepare." He later postulates that investors should shy away from long-duration bonds and instead overweight assets that do well in an inflationary environment, like real estate where rent can be increased.[1] Consistent with an economic regime change, portfolio positioning needs to be revisited in light of this renewed threat.

While the U.S. has not experienced a period of high, sustained inflation in almost 40 years, headline inflation recently soared to a 13-year high of 5.4% in June, due to the rapid reopening of the economy (**Exhibit 1**). Further, core inflation rose to 4.5%, the largest increase since 1991. **Given that a key objective of many investors is maintaining the purchasing power of their portfolios in real terms, the perceived prominence of inflation risk has intensified.** Despite the Federal Reserve's assertion of a temporary spike, investors are becoming increasingly concerned, as evidenced by the rise in U.S. interest rates in the first half of 2021 and the University of Michigan Survey of Consumers anticipating a more than 4% jump in prices in the coming year.[2] Further showcasing this is the recent 10-Year TIPS Breakeven Inflation Rate reaching 2.57% – its highest level since early 2013.[3]

EXHIBIT 1: U.S. Consumer Price Indices (YoY)



Source: U.S. Bureau of Labor Statistics

1. Marks, H.S. (2021, March 19). 2020 in Review. Oaktree Capital. Retrieved April 5, 2021, from http://www.oaktreecapital.com/docs/default-source/memos/2020inreview.pdf
2. Board of Governors of the Federal Reserve System (U.S.). (2021). June 2021 FOMC Meeting Minutes Press Release. Retrieved June 24, 2021, from https://www.federalreserve.gov/monetarypolicy/fomccalendars.htm
3. Federal Reserve Bank of St. Louis. FRED Economic Data: 10-Year Breakeven Inflation Rate. Retrieved June 3, 2021, from http://fred.stlouisfed.org/series/T10YIE

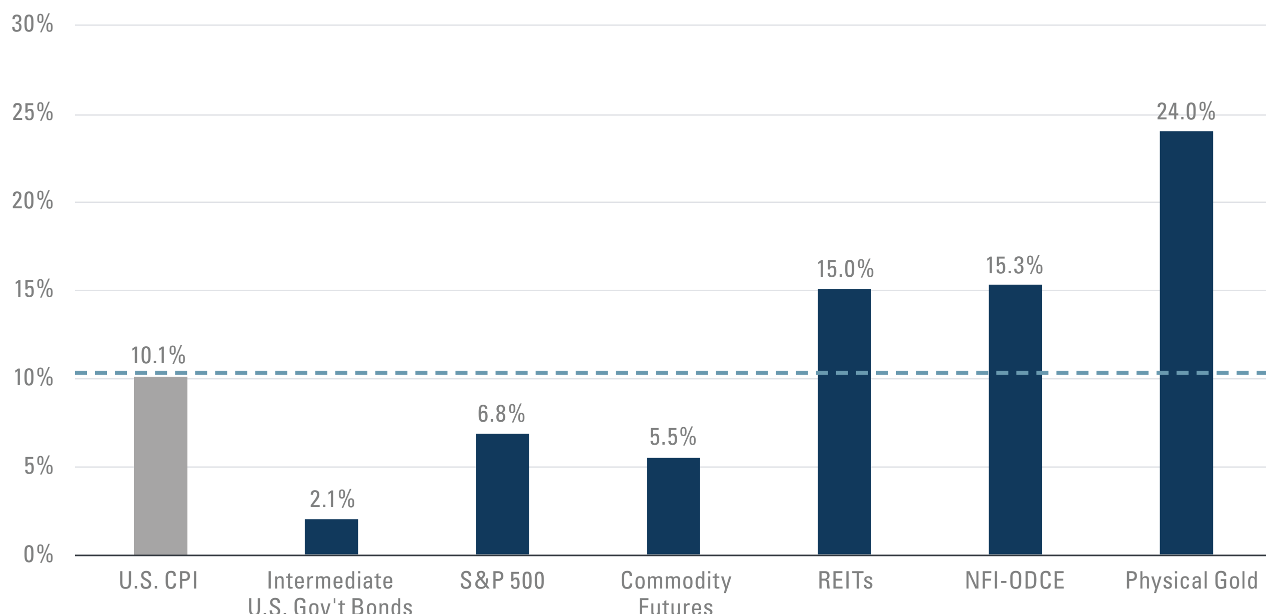
Real Estate as an Effective Inflation Hedge:
THE GOLDEN GOOSE?

In addition to the risk, return, and diversification benefits that direct real estate provides to a comprehensive portfolio, it can also offer investors a hedge against inflation. **Fundamentally, real estate provides a hedge against inflation because rental and lease payments – varying by property type and associated lease structure – are adjusted regularly for inflation.** Additionally, price appreciation can occur as a result of the capital rotation out of stocks and bonds into direct real estate in times of inflation. This is assuming a tight, functioning market.

When examining the inflation hedging abilities of an asset class, investors can use several different approaches. These include, but are not limited to: correlation to headline inflation; correlation to expected vs. unexpected inflation; beta to inflation; and performance during different inflationary regimes (high, low, accelerating, decelerating). Our analysis focuses on the last period of high, accelerating, and persistent inflation in the U.S. – the Great Inflation – spanning from the late 1970s to early 1980s. As shown in **Exhibit 2**, core real estate (as measured by the NCREIF NFI-ODCE Index) and REITs more than kept pace with inflation during this time, whereas both stocks and nominal bonds failed to do so.

EXHIBIT 2: Asset Class Performance During an Inflationary Environment

(March 1978-September 1981)



Source: Bloomberg, L.P., USAA Real Estate

Direct core real estate exhibited the strongest correlation (0.29) to headline inflation across major asset classes during this short, but important, time period. **Further, direct real estate represented the most optimal risk-adjusted return profile** (Sharpe ratio of 2.48 – see **Exhibit 3**). Conversely, both U.S. stocks and intermediate government bonds failed to keep pace with inflation, even on an absolute level, as shown by the light blue dotted line in **Exhibit 2** representing the cumulative inflation hurdle. Intermediate U.S. Government bonds and U.S. equities were negatively correlated with high, sustained inflation and also generated negative risk-adjusted returns.

While fixed income normally represents a portfolio's lowest risk asset, or safe-haven, traditional active fixed income strategies (e.g. buy and hold, yield curve positioning) become vulnerable during times of high inflation and can drive negative portfolio performance through an erosion of inflation-adjusted value. Listed REITs displayed a competitive total return profile, but they did so with a negative correlation to inflation. Although physical gold prices exhibited the other positive correlation to inflation, they saw the highest overall volatility (**Exhibit 3**) and can serve as a drag on portfolio performance outside of periods of high, sustained inflation.

EXHIBIT 3: Asset Class Characteristics vs. U.S. Inflation

(March 1978-September 1981)

	Correlation	Return	Risk	Sharpe Ratio
Intermediate U.S. Gov't Bonds	-0.03	2.1%	11.5%	-0.75
S&P 500	-0.20	6.8%	14.4%	-0.27
Commodity Futures	-0.20	5.5%	17.7%	-0.29
REITs	-0.19	15.0%	15.8%	0.27
NFI-ODCE	**0.29**	**15.3%**	**1.9%**	**2.48**
Physical Gold	0.25	24.0%	39.0%	0.34
NFI-ODCE (2X Risk)				1.24
NFI-ODCE (3X Risk)				0.83
NFI-ODCE (Bonds/Stock Blended Risk)				0.36

Source: Bloomberg, L.P., USAA Real Estate

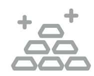
4. Benjamin, J.D., Sirmans, G.S., Zietz, E.N. (2001). Returns and Risk on Real Estate and Other Investments: More Evidence. Journal of Portfolio Management. 7:3, 183-214.
5. Ibid.
6. Ibid.
7. Ling, D.C., Naranjo, A. (1999). The Integration of Commercial Real Estate Markets and Stock Markets. Real Estate Economics. 27:3, 483-515.
8. Benjamin, J.D., Sirmans, G.S., Zietz, E.N. (2001). Returns and Risk on Real Estate and Other Investments: More Evidence. Journal of Portfolio Management. 7:3, 183-214.
9. Ibid.

Listed REITs or Direct Core Real Estate:
LET'S GET OPTIMAL

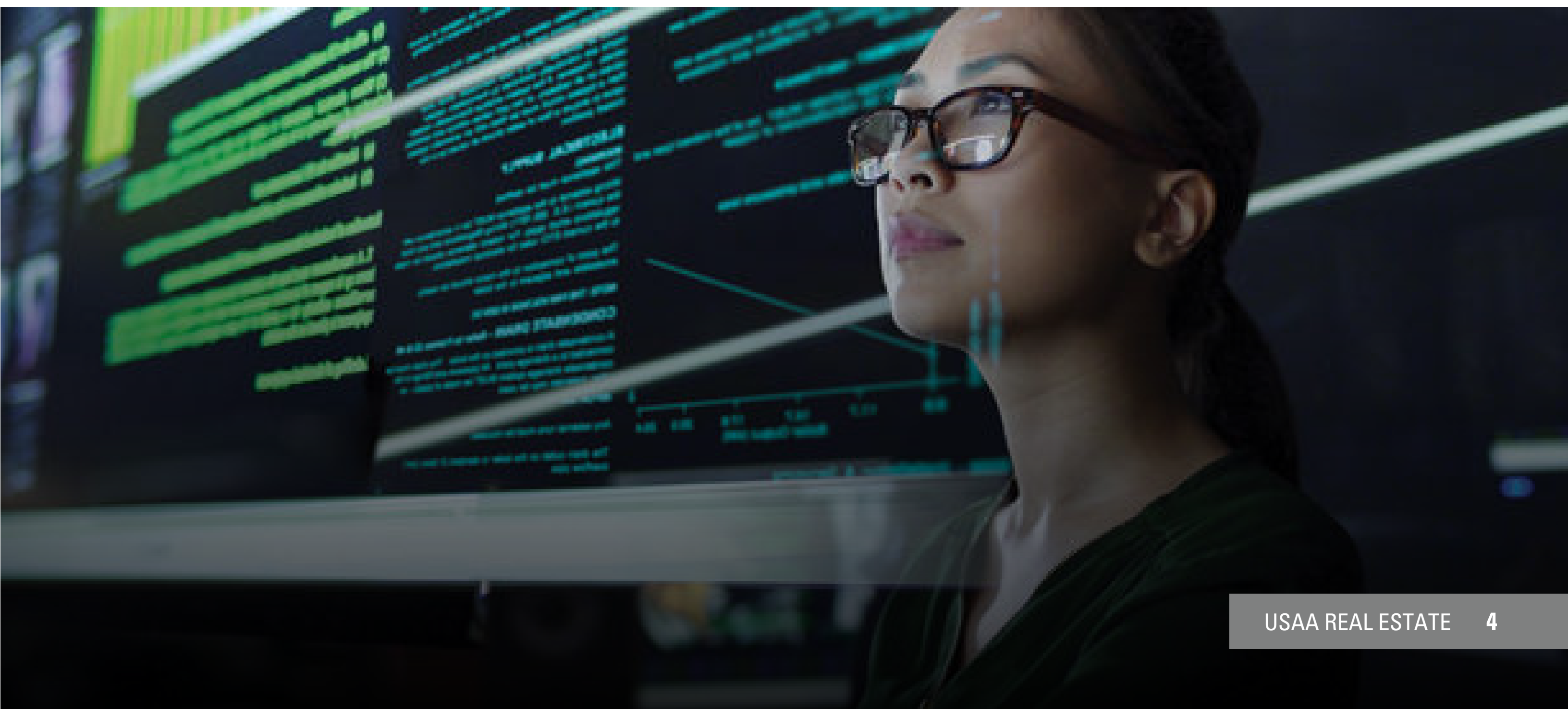
In addition to the finite time period presented, leading academic research has shown that listed REITs provide suboptimal protection from general inflation for investors.[4] Much like stocks, listed REITs have historically failed to offer effective protection from inflation, and analysis of their dividend yields and inflation rates also show negative correlations.[5] As investors adjust their expectations due to a rising price level and the resulting possibility of a deteriorating macroeconomic environment, the actual returns of listed REITs become adversely affected. On the contrary, empirical evidence shows that **direct real estate has provided an effective hedge against expected inflation** (**Exhibit 3**) and at least a partial hedge against unexpected inflation – another important threat to maintaining a portfolio's purchasing power but for the sake of brevity won't be discussed here.[6]

There are two related schools of thought explaining the disparity between the inflation-hedging performance of direct real estate and that of listed REITs:

The first focuses on the fact that REITs have a large equity component. Ling and Naranjo (1999) found that between 1978 and 1994, REITs were integrated with stock markets when using a multi-factor asset-pricing model and that the degree of integration had strengthened over time.[7] Glascock, Lu, and So (2000) found that from 1972 to 1997 the weak, and even negative, relationship between REITs and inflation during varying regimes may be the result of the equity component inherent to REITs.[8]



The second relies more directly on proxy-like effects initially described by Fama (1965). Larsen and McQueen (1995) compared the hedging properties of gold, a physical asset, against those of gold stocks, a securitized form of the asset, between 1985 and 1994. They found that gold performs well as an inflation hedge, but gold stocks do not. Based on this example, academics caution that studies supporting REITs as a strong hedging instrument against inflation may have drawn incorrect conclusions.[9]



Conclusion

Direct real estate exposure has historically provided an effective hedge against inflation. Empirically, other traditional, long-only investments like stocks, nominal bonds, and even listed REITs tend to be negatively impacted during inflationary environments in the U.S. or represent a suboptimal asset allocation decision given today's enhanced investment landscape. In contrast, direct real estate is positioned to be a superior hedge against rising inflation because of the various market fundamentals and dynamics explained in this paper. As well, a potential added benefit of direct real estate exposure is the strong total return profile, whereas other alternative investments may exhibit solid inflation-hedging characteristics (e.g. physical gold) but can come at a cost to the portfolio if significant inflation isn't realized. Direct real estate features a compelling combination of inflation hedging properties and strong absolute and risk-adjusted returns for investors.

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