

Breaking Into the 60/40 Portfolio with Residential Real Estate



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Introduction

The standard 60/40 portfolio relies on the low correlation between stocks and bonds in order to reduce the overall portfolio volatility as market risk increases. In practice, investors have seen a negative stock-bond correlation since the turn of the century, providing natural relief to portfolios in times of excessive volatility with bonds delivering their own excess return. While the modern investor has grown accustomed to negative correlation and natural portfolio relief, this hasn't always been the case. Specifically, during high inflationary periods, stocks and bonds may exhibit a positive correlation, which could lead to excess volatility in a standard portfolio. Investors may seek alternatives, such as owner-occupied residential real estate, in order to increase overall portfolio diversity and increase expected returns. This paper will:

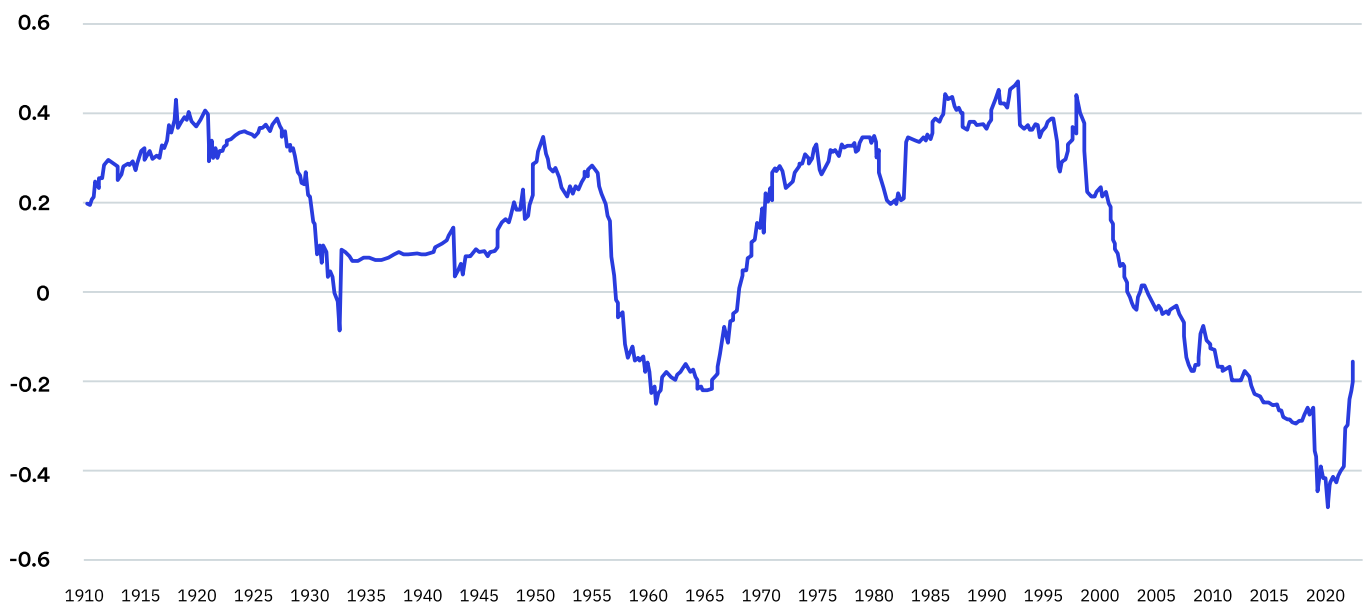
- **Examine the historical relationship between stocks and bonds, and discuss why these assets might become more correlated in high inflationary periods or tightening cycles**
- **Look at the historical performance of owner-occupied residential real estate (OORR) relative to these other asset classes in inflationary periods and tightening cycles**
- **Distill how OORR can provide excess returns relative to stocks and bonds, from a risk/return perspective**



Stock and Bond Correlation

Investors have been able to take advantage of—and perhaps take for granted—the negative relationships between bonds and equities since the early aughts. Research from quantitative investment firm AQR¹ demonstrates that even a slight negative correlation between the returns of these asset classes provides substantial volatility reduction in a standard 60/40 portfolio. However, a negative stock-bond correlation is far from the rule for most of the asset classes’ history, and is an outlier for most of the 20th century. Figure One shows the ten-year running correlation between monthly bond and equity returns since 1900. For the twentieth century, the ten-year correlation averaged (0.2) as compared to the (-0.16) since.

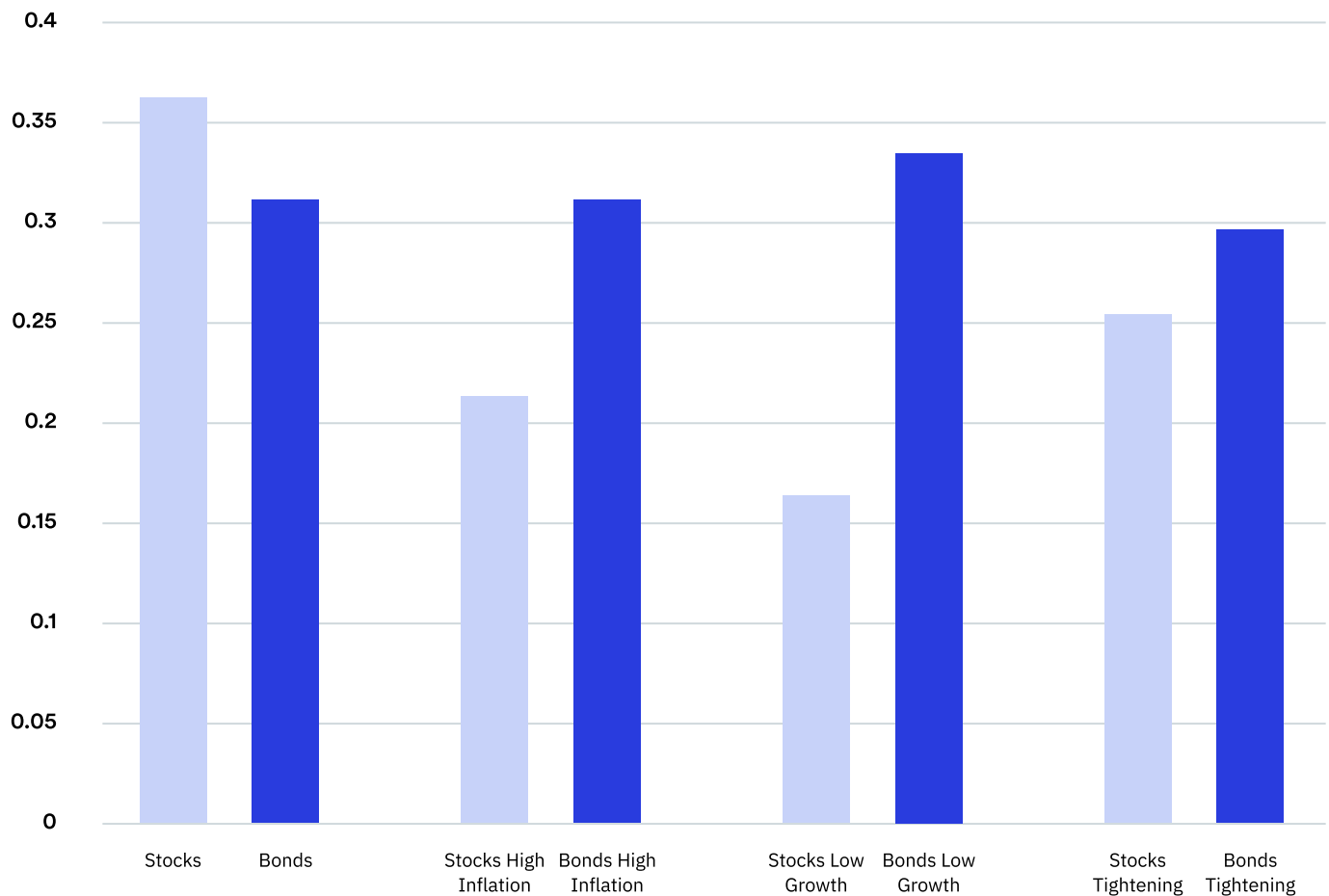
FIGURE 1
Stock-Bond Correlation



A confluence of macroeconomic factors is putting upward pressure on the correlation between the two most popular asset classes, the three most prominent being surging inflation, rapid central bank tightening, and sluggish economic growth. Inflation deteriorates the real yield provided by the nominal cash payments, ultimately driving bond prices down. Theoretically, equities should exhibit little sensitivity to inflation, because dividend payments should be a real return on investment; empirically, however, that is not the case. A combination of future interest rate risk (premium), money illusion, and/or “animal spirits”² lower returns in high inflationary periods. As demonstrated by Illmanen, Maloney, and Ross (2014)³, equities prefer a growing economy, and bond prices perform best during sluggish periods. Finally, rising interest rates put downward pressure on both bonds and equity prices, because rate hikes raise yields (and lower bond prices), and higher rates reduce the value of future cash flows.

Figure Two shows the risk-return ratios of these asset classes broken down into four categories similar to Illmanene, Maloney, and Ross (2014). As seen in Figure One, the relationship between stocks and bonds is turning around rapidly, and investors might not only find themselves with lower returns due to macro-uncertainty but higher portfolio volatility as the stock-bond correlation moves more positively. Portfolios should seek to lower volatility by finding asset classes that perform better during this particularly macroeconomic climate and have lower correlated returns to bonds and equities.

FIGURE 2
Risk-Adjusted Returns During Different Shocks

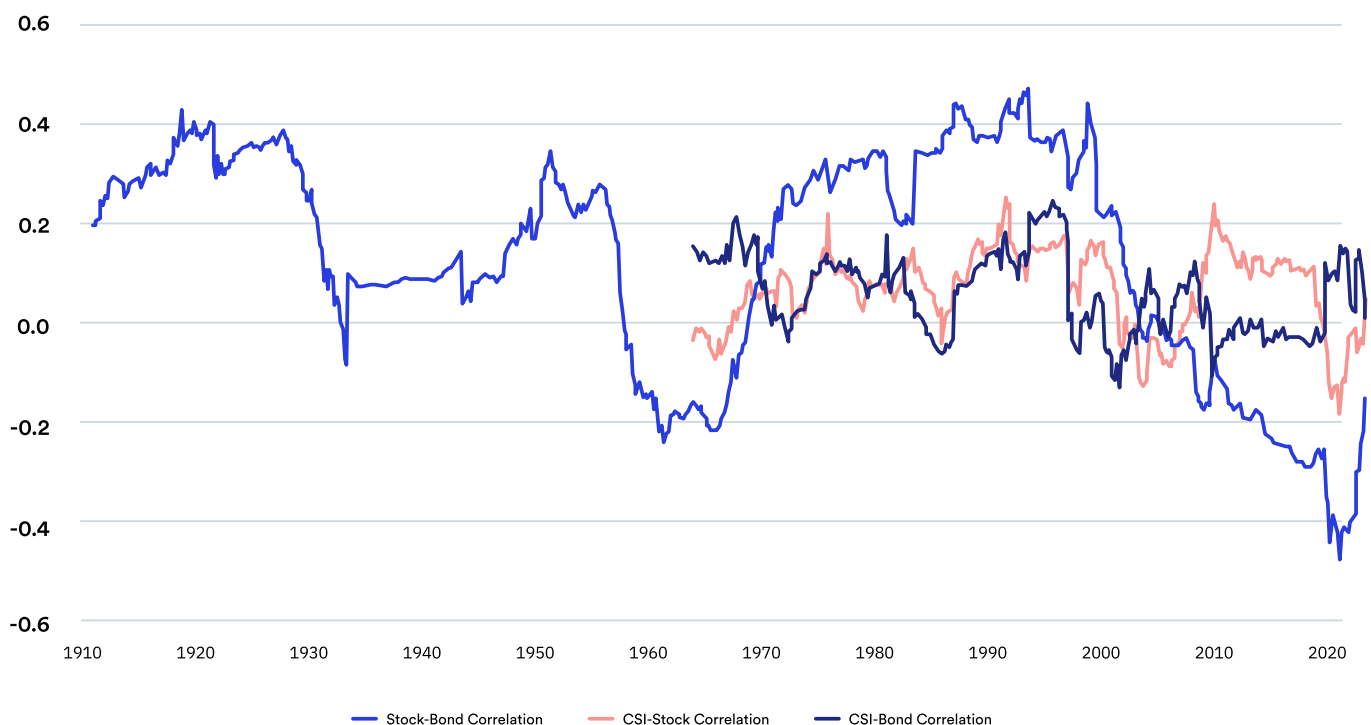


Breaking into the 60/40 with OORR

The sensitivity of the traditional portfolio to the macro scenarios the economy is facing is being experienced in real time. Due to these assets' increasing correlation with one another, investors need an alternative. Owner-occupied residential real estate is perhaps the most robust asset class when facing the myriad of shocks that the economy continues to experience. Our previous white paper⁴ laid the groundwork as to why microeconomics looks favorable for real estate moving forward. In this paper, we want to see how real estate shapes up vs the traditional assets in a portfolio.

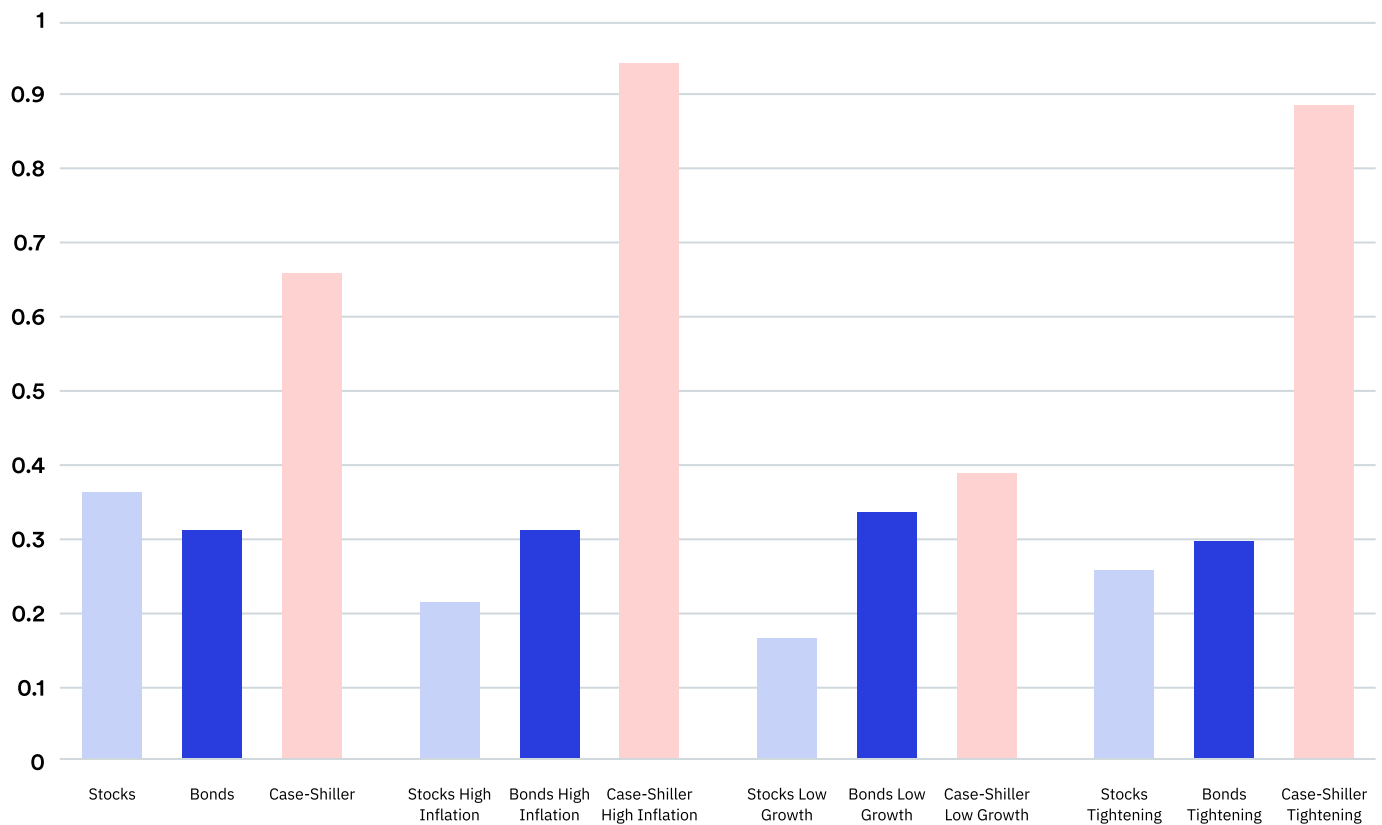
Figure Three adds the running correlation of home price returns as measured by the Case-Shiller Index to the previous Stock-Bond correlation figure. The correlation between home prices and the S&P 500 is currently much lower and more stable than the stock-bond correlation during the 1970s and 80s periods of high inflation. There is a similar pattern with bonds during this period as well; at points (Volker Recession), this relationship is even negative. This low and stable correlation is an attractive feature when considering additions of various alternatives to the portfolio.

FIGURE 3
Asset Class Correlation



However, more convincing than this is the historical precedent set by the asset classes' performance in previous similar cycles. Figure Four adds home prices to Figure Three to see how the asset class performs in various cycles currently faced by the economy. From a return/risk perspective, home prices are already relatively attractive compared to stocks and bonds from an all-time historical perspective.

FIGURE 4
Risk-Adjusted Returns During Different Shocks



While home prices do lose some risk-adjusted-return performance during low growth environments, this loss is exacerbated by the variance we saw in the Great Financial Crisis. Regardless of the worst-case scenario, they still outperform the other two asset classes. However, where home prices really excel over competing asset classes is in high inflationary environments and tightening cycles. The S&P 500 and bonds experience extremely negative changes to their baseline

performance in inflationary environments, which is a contributing factor to their higher co-movement during the 1970s. House prices perform better from a risk-adjusted return perspective. This is due to several factors outlined in our previous paper, the simplest of which to digest are their implicit contributions to the CPI, wage growth elevating demand, and higher input costs raising input prices or restricting supply.

The final figure looks at the risk-adjusted returns after a rise in the Federal Funds Rate. Home prices still produce the highest ratio of the three asset classes, but more importantly, once again their returns are improved from a risk-return perspective, while the other two asset classes see their risk-adjusted returns decrease. Our previous work highlighted why home prices are less sensitive to higher mortgage rates, but here tightening cycles actually produce higher home price returns. Figure Five shows home price appreciation one month, quarter, and a year ahead of a change in interest rates. Though the statistical relationship is not strong per se, it is positive, and concurs with the risk-adjusted return evidence.

Finally, Figure Six shows a rolling ten-year risk-adjusted return ratio of home prices, stocks, and bonds. Only in the aftermath of the Great Financial Crisis has this relationship been below the S&P 500, where home prices deteriorated across the U.S. However, the gap between home prices and other major asset classes was at its widest in the periods most similar to today’s economic circumstances.

FIGURE 5
Stock-Bond Correlation

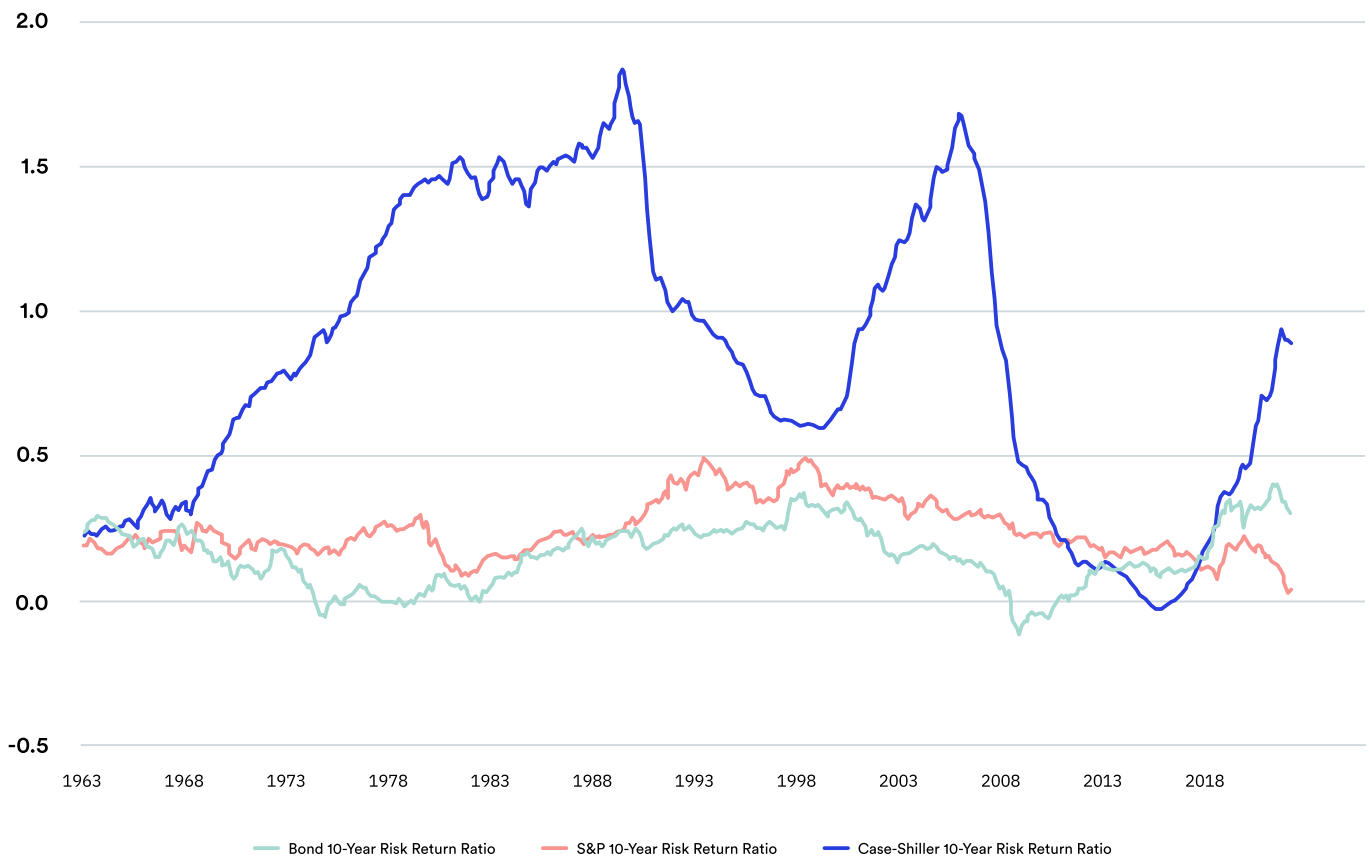
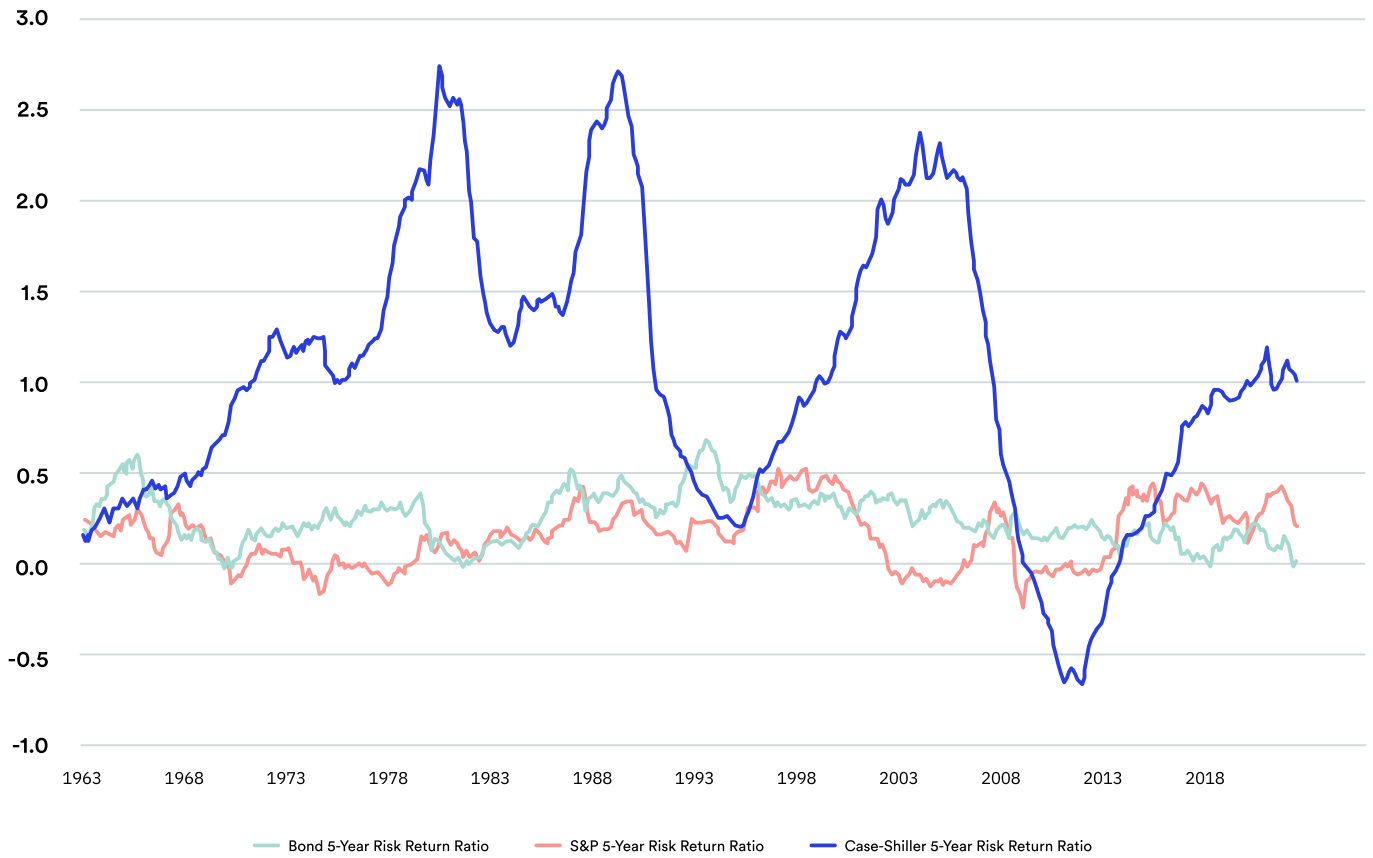


FIGURE 6

Five-Year Risk-Adjusted Returns for Different Asset Classes



Residential real estate alpha



It's clear that owner-occupied residential real estate is always a particularly attractive asset class, but can truly excel in the macro environments we expect in the foreseeable future. However, this analysis has been conducted on the Case-Shiller home price index, which is a measure of nationwide home prices and doesn't have the ability to select market segments by geography or other characteristics that might outpace such a broad index. There has been a wide body of economic and financial literature tracing back to Case-Shiller (1990)⁵ that demonstrates the irrationality of the housing market. This allows portfolio managers to select assets that might outperform a broad measure like the Case-Shiller.

One of the reasons the housing market is less rational is market participation. Highly segmented markets don't allow the fast-paced transactions we see in more efficient financial markets. Additionally, investors rely on a wide range of financial products to short or make future bets on financial markets. These mechanisms don't exist in housing markets, as pointed out by an article by Robert Shiller (2015)⁶ after the financial crisis. There is also a high degree of sophistication among many participants in traditional financial markets, but housing market participants don't have the same fundamental understanding of the supply-demand dynamics that underpin the microeconomics of the housing market (as pointed out by Edward Gleasner⁷ when assessing housing booms and busts in a presentation for the AEA). Finally, unlike extremely liquid financial markets, where investors can find buyers or sellers at the market price quickly, this is not the case in the real estate market. Any homeowner can attest to the time spent in finding the right fit for a home; economists label this amount of time and energy spent as 'search costs,' which create friction in the market and make price discovery, and hence efficiency, less likely.

These gaps in efficiency allow a degree of forecastability that doesn't exist in other assets—or to a much less significant extent. Market signals can be taken from various micro and macroeconomic indicators such as inflation, unemployment, wages, rent-price ratios, population size, and many others, to predict future intra-market returns.

Summary

Throughout most of its history, owner-occupied residential real estate has been an inaccessible asset class for investors, despite being one of the largest in the world. While investors may have individual homes or investment properties, aggregate holdings have not been possible. This has led to a less intimate understanding of its features as an asset class.

With inflation rising rapidly, there is a possibility that stalwart asset classes like stocks and bonds will not only become more correlated but will also see increased volatility and poor performances. Historically, residential real estate has been very attractive from a risk-adjusted return perspective when compared to these other asset classes, but its performance becomes amplified during the current macro risks and should therefore be a strong alternative consideration for investors moving forward.



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About Unison

Unison is a San Francisco and Omaha-based company that is pioneering a smarter, better way to own homes. Until now, the only way to finance a home was by taking on debt. Through equity sharing agreements, we help homeowners access their equity flexibly with

no monthly payments or interest. We enhance home affordability, reduce debt, and deliver a less risky way for homeowners, investors, and society to think about their most important asset – the home.



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