



The Income-Producing Real Estate "Asset Class" in Your Portfolio February 2017

The two different areas of real estate — home ownership versus income production

Many investors think about their house when asked about investing in real estate. This is a BIG misconception as the home they live in is a USE asset, just like their car. They live IN it, but cannot live ON it as it does not produce income. Also, it is rare for investors to capture appreciation by selling their home and living on that profit, because they must buy a replacement house or pay rent. Income-producing real estate — office, industrial warehouse, retail, apartments and hotels — on the other hand, produces income from rents and appreciates over time as its income increases and the cost to replace with a new building rises.

Income producing real estate — the separate asset class

Most people think their investment choices consist of stocks, bonds, commodities, cash and a few private direct investments in a small company. Institutional investors came to the conclusion in the 1980s that income-producing real estate IS a separate asset class — as it has different characteristics and does not behave (correlate) the same as the stock and bonds.



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characteristics and does not behave (correlate) the same as the stock and bond market. The best way to describe it is that real estate has "better than bond-like income" and "not quite stock-like appreciation."

"Better than bond-like income" comes from the fact that as the economy expands, companies grow and they must lease more space. That increased demand increases occupancies and landlords are able to increase rents — these are the two components of income for real estate. Historically, real estate income growth has outpaced inflation. Thus, owning real estate has been better than having an inflation-adjusted bond.

Price appreciation in stocks comes from the anticipation of, or the realization of increased income from an investment (when the market is being rational). Real estate prices act the same way when the market is rational. But it is really capital flows that drive real estate prices. When an asset class is more attractive and in favor, more money flows in — driving prices up. There are times when the markets are not rational in the short term, but these emotions are eventually overcome by more rational expectations and the markets usually correct. Historically, real estate has produced "not quite stock-like appreciation" but has had long-term price growth that is better than inflation.

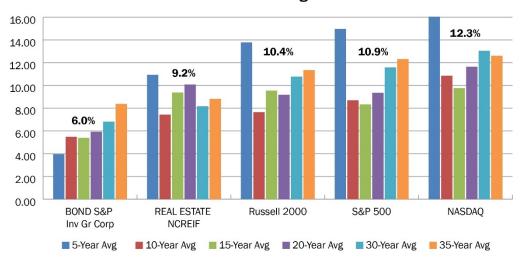
Real estate's total return has consistently been somewhere between stocks and bonds historically, but with substantially less volatility than stocks and a higher risk-adjusted return than bonds. The following charts provide

a historic comparison over the last 35 years of available data. Exhibit 1 shows the historic returns for the three major asset classes — bonds, real estate and stocks (with the three major stock indices that cover large, medium and small cap stocks).

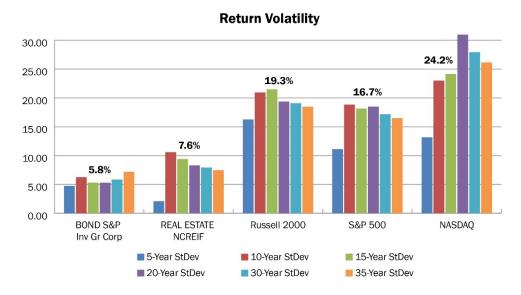
Exhibit 1

Returns and Risks

Return Averages



Source: NCREIF, Barclays U.S. Aggregate Bond Index, S&P 500, Russell 2000 and NASDAQ, January 2017



Source: NCREIF, Barclays U.S. Aggregate Bond Index, S&P 500, Russell 2000 and NASDAQ, January 2017

Using 5-, 10-, 15-, 20-, 30- and 35-year averages that cover the past four U.S. economic cycles, the return averages are relatively consistent, as are the volatility of those returns. But, please remember that the return average for the past five years reflects the recovery in returns from the Great Recession and thus the past five-year average return should be above their long-term averages (except for bonds with very low historic interest rates).

BONDS have had a long-term average return of 6%, which seems high in today's low interest rate environment—but this is because interest rates have been dropping since 1981, when they peaked at 15%. Also, as interest rates drop, bond values go up. During the past five years, the average corporate and government bond returns have averaged 4% as interest rates could go no lower. The market expectation is that interest rates must rise. Now with a future of rising interest rates, bond total returns should continue to drop as bond principal values decline. Most investors are going to much shorter bond durations to avoid the loss of principal, but their interest yields are also very low. Many investors are searching for higher income yields with moderate risk, and bonds do not fill this requirement very well. The return chart in Exhibit 1, shows the return volatility. Note that the standard deviation of bonds has averaged 5.8% over all of the time frames. Taking the average return of 6.0% and subtracting the 5.8% volatility means that investors would expect a 0.2% return in a bad year (well below inflation).

STOCKS have had long-term average returns between 10.4% for mid cap, to 10.9% for large cap and 12.3% for small cap. But these returns have been declining over the past 35 years, except for the last five years with their recession-recovery bounce. Few investors expect future returns like the past five years with the high stock price-to-earnings multiples of 2017. Similar to the stock return charts, the return volatility and the standard deviations of each stock type is also displayed. Taking the average returns and subtracting their standard deviations means that investors should expect NEGATIVE returns of -8.9% for mid-cap, -5.8% for large cap, and -12.1% for small cap stocks at some time in the future.

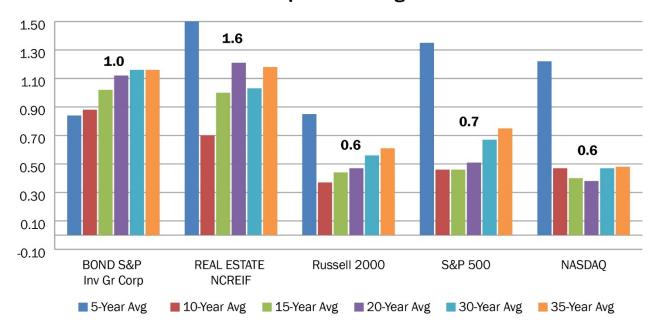
REAL ESTATE has performed in-between the other two asset classes, with a return better than bonds of 9.2%, but not quite stock-like return. However, it has performed almost as well as all three stock sectors in the past five years, with the recovery from the great recession. It is evident that real estate returns have been more consistent than the three stock sectors, as the return bars are very similar for all time frames. It is even more evident from the low standard deviations that average 7.6% over all the time frames and the very low 2.0% standard deviation over the past five years. Taking the 9.2% average of real estate returns and subtracting their average 7.6% standard deviation means that investors would expect a POSITIVE return of 1.6% in a bad year — which is the only positive expectation in bad times that is close to recent inflation.

Investors should always be aware of the **RISKS** they are taking for the **RETURNS** they are receiving. This concept is best expressed by the **SHARPE RATIO**, which was created years ago by Professor William Sharpe. The Sharpe ratio lets investors compare how much return they are getting for each unit of risk (standard deviation) they are taking. Exhibit 2 shows that real estate has consistently stood out as a superior asset class in this capacity with a Sharpe ratio that has consistently been more than double the rate of stocks and 60% higher than bonds.

Exhibit 2

Real Estate — The Highest "Risk Adjusted" Returns

Sharpe Ratio Ranges

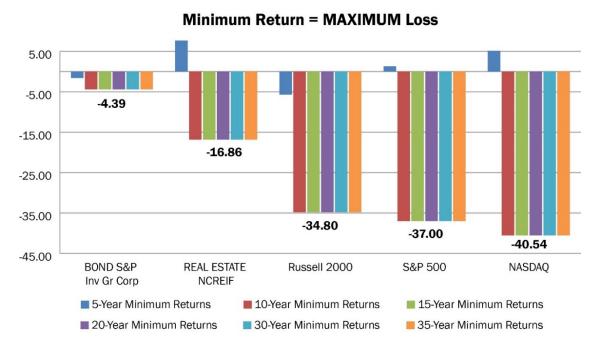


Source: NCREIF, Barclays U.S. Aggregate Bond Index, S&P 500, Russell 2000 and NASDAQ, January 2017

Finally, a very important point on all investors' minds is recovery from a loss. When there is a negative return in a given year, how long does it take an investor to recover their principal loss? Selecting the WORST return over each of the timeframes analyzed, it is evident from Exhibit 3 on the next page, that the worst return in every asset class happened within the last 10 years during the great recession. As expected, bonds had the smallest loss, followed by real estate. But, all public stock asset class losses were more than double real estate. Remember that any loss requires a higher percentage of growth to recover the lost principal. Exhibit 3 also shows the maximum loss and calculates the needed appreciation increase to recover that loss, and then calculates the number of years of average return needed to recover all the lost principal. Bonds are obviously the safest with only 0.7 years to recover from the worst bond loss in the last 35 years. Real estate is in-between at 2.5 years, but this recovery time is half of all the public stock alternatives which are all over five years. Thus, direct real estate exhibited less downside risk recovery of principal than stocks. Also remember that this analysis does not consider an investor taking any money out of their portfolio during the principal recovery time period.

Exhibit 3

How Many YEARS to Recover from Major Loss?



Source: NCREIF, Barclays U.S. Aggregate Bond Index, S&P 500, Russell 2000 and NASDAQ, January 2017

Years to Recover a Maximum Loss

	Bonds	Real Estate NCREIF	Russell 2000	S&P 500	NASDAQ
Needed Increase	4.59%	20.28%	53.37%	58.73%	68.18%
Years — Recover	0.67	2.48	4.96	5.07	5.23

Source: NCREIF, Barclays U.S. Aggregate Bond Index, S&P 500, Russell 2000 and NASDAQ, January 2017

Conclusion

This analysis shows that the real estate asset class has performed differently than the stock and bond asset classes over the past 35 years, which included four economic cycles. Real estate exhibits "better than bond-like income" and "not quite stock-like appreciation" giving it different, more consistent and more positive return characteristics that can potentially improve investors portfolio diversification and return profiles.

Real estate does follow the economy, and current economist predictions of four more years of moderate economic growth bode well for both real estate and stock investments, but poorly for bonds, as interest rates are expected to rise.

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