June 2017

PACIFIC FUNDS

Manager Insight Series

Below is the latest informational commentary from Pacific Life Fund Advisors LLC, the investment adviser to Pacific Funds[SM].

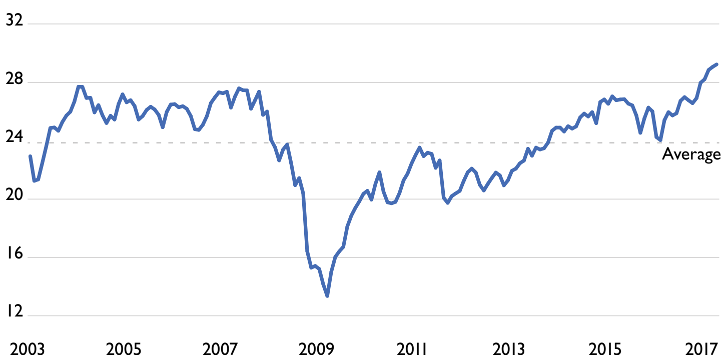
An Alternative to the Sirens' Song

Capital markets are moving into uncomfortable territory. It reminds us of the sirens' song from Greek mythology—a song so captivating that sailors who heard it were lulled into a blissful state as their ships crashed into the rocks off the shore. We are in extraordinarily calm waters after an extended bull market for equities, but we are wary of the sirens' song of historically low volatility and easy monetary policy. Just as Odysseus' crew plugged their ears with wax to resist the sirens' song, we have turned our attention toward alternatives and their potential to diversify risks related to rising interest rates and higher anticipated equity volatility. The Investment Committee at Pacific Life Fund Advisors shares several developments that have increased the focus on alternatives as well as how alternatives may address what we see as two of the more pressing potential risks in capital markets today.

Equity Cycles and Climbing Rates

The first two developments are related: We see the equity market in late-cycle and the Federal Reserve (Fed) committed to interest-rate tightening. As labor markets reach full employment, the Fed will make an effort to normalize interest rates as long as inflation remains at or above its target rate. Equities are looking over-valued as measured by the cyclically adjusted price/earnings ratio (CAPE) as shown in Figure 1.

Figure 1. CAPE



Source: FactSet, from January 2003 to April 2017.

The economy continues to grow with an unemployment rate of 4.3%, the lowest level since May 2001.[1] Given the robust earnings growth for companies in the first quarter of 2017 combined with historically low volatility, the Fed is likely to continue increasing rates as it also decides how to communicate its intention to trim its sizable balance sheet of $2.4 trillion in Treasuries and $1.7 trillion[2] in mortgage-backed securities.

Reform Less Imminent

In addition to the first two developments, we expect that economic reforms such as infrastructure, deregulation, and a tax overhaul are likely to be implemented later than expected entering 2017. Keep in mind that we approach these issues as asset allocators, apolitically focusing on the timing and impacts to investors. The first sign of challenge was the president's choice to begin with healthcare reform, only to stumble. In our view, reinvesting in the country's dated infrastructure seemed like the easier target and could have helped build the bipartisan coalitions necessary to tackle some of the more complex legislation. The more recent indication is the naming of special counsel to oversee the investigation into Russian interference in the election, indicating that the president may be tied up defending his Cabinet instead of pushing through reforms.

Looking at Other Options

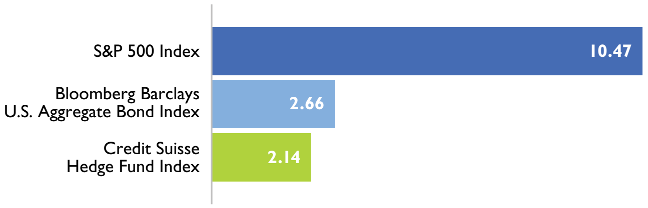
Given these challenges coupled with our lowered expectations for returns across asset classes at this late stage of the economic cycle, we see a renewed need to consider alternatives. Alternatives have become an increasingly accessible option for investors during the past decade, but it would be easy to dismiss them as not very effective if judging by recent performance alone. The most appropriate long-run benchmark for broad alternatives would be to look at hedge funds more generally, as they employ a wide variety of strategies encompassing the scope of what we consider alternatives.

[1]According to data from the Bureau of Labor Statistics as of 4/30/17.

[2]According to the Federal Reserve Bank of St. Louis as of 4/30/17.

As shown in Figure 2, hedge funds trailed the equity and bond markets during the past three years. However, we think a more effective evaluation would be to examine their potential to address our two specific areas of concern: rising interest rates and higher potential equity volatility.

Figure 2. Three Year Returns (%)

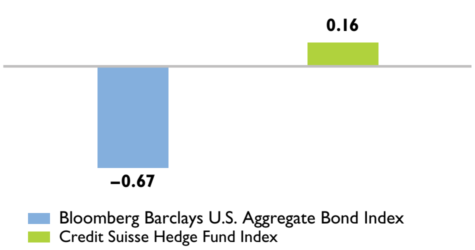


Source: Morningstar®, 3-year return ending 4/30/17 based on monthly return data.

When Fixed Income Flops

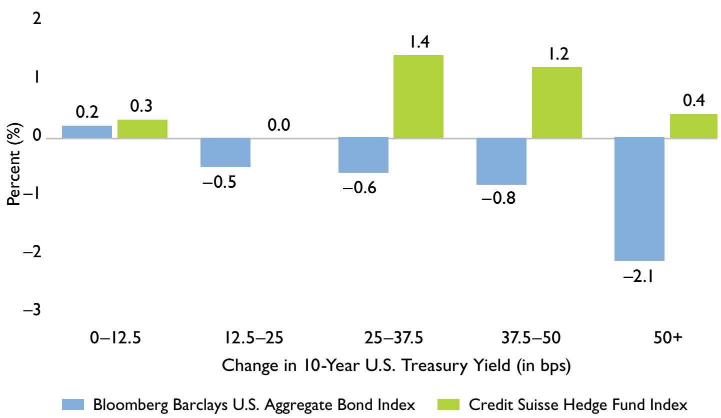
Let's start by looking at how alternatives might address concerns about fixed income when interest rates rise. Figure 3 shows that when bond markets had a down month, their average loss was 0.67%, demonstrating a general diversification benefit. But how do bonds and alternatives do specifically when interest rates are rising? Figure 4 shows average monthly returns as the yield on the 10-year U.S. Treasury note goes up by increasing amounts, including 50 or more basis points (bps) in a month (one basis point is equal to 0.01%). We can see that broad fixed-income returns get worse with higher yield increases, as interest rates and bond values move inversely, but we can also see that there is nearly the opposite relationship between these rate changes and hedge fund returns; they actually go up before tailing back off.

Figure 3. Monthly Average Returns when Bonds go Down (%)



Source: Morningstar, monthly returns from January 2000 to March 2017.

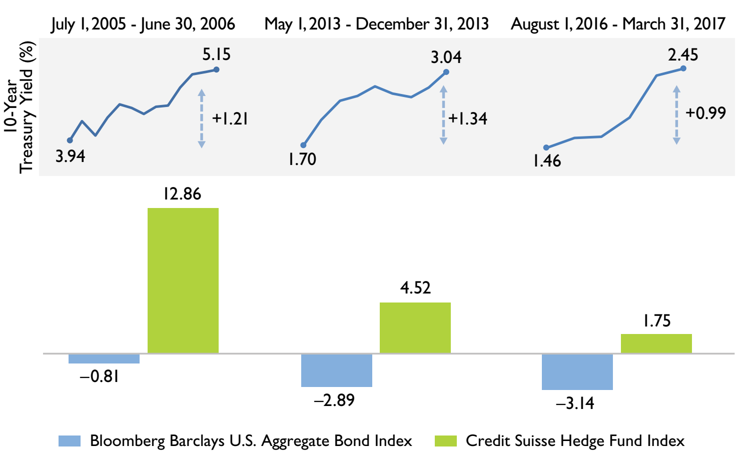
Figure 4. Rate Increases Bad for Bonds, Good for Alternatives



Source: Morningstar, based on monthly returns from January 2000 to March 2017.

Figure 5 explores three periods during the past decade where the 10-year U.S. Treasury note increased around 100 basis points. This shows how hedge funds have tended to outperform broad fixed income when rates go up, and over rate changes that are more prolonged than the monthly averages in Figure 4. We expect that broad alternatives will continue to show these characteristics and thus provide a meaningful complement to fixed income with potentially similar levels of volatility.

Figure 5. Alternatives and Broad Fixed Income when Interest Rates Rise (%)

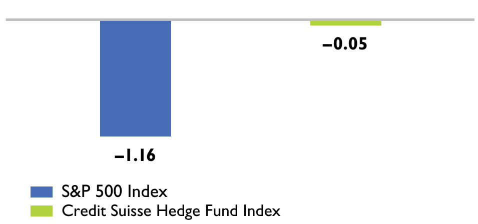


Source: Morningstar, returns reflect total returns based on monthly figures from period-start through period-end dates.

Complacent Volatility

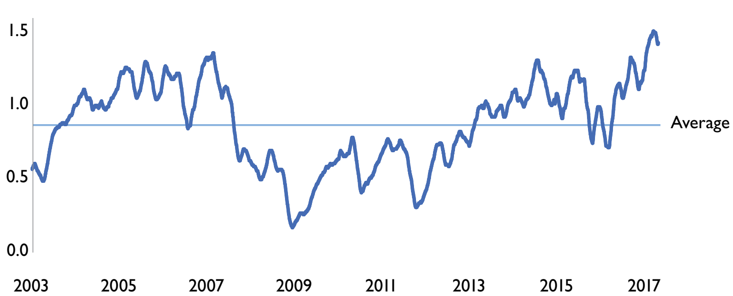
We can also examine how alternatives may perform when equity volatility spikes. Figure 6 shows that when the CBOE Volatility Index® (VIX®) was above its average of 20 since January 2000, equities tended to have negative monthly returns where hedge funds were flat. While the VIX is currently hovering around a historic low of 10, we anticipate that pressure is building for a return to greater volatility, based on readings of complacency in Figure 7. The figure shows the ratio of forward price-to-earnings (P/E) of the S&P 500 index to the VIX level, smoothed over 50 days, and shows the highest reading since 2003 with the second highest being just before the financial crisis in 2008. We think that either volatility is likely to increase, forward price-to-earnings ratios are likely to decrease, or some combination of the two. In either case, we believe the diversification benefits of alternatives can help smooth out any potential shift to rockier returns ahead.

Figure 6. Monthly Average Returns (%) when the VIX is over 20



Source: Morningstar, monthly returns from January 2000 to March 2017.

Figure 7. Complacency is High



Source: Factset, S&P 500 index forward price-to-earnings divided by VIX, smoothed over 50 days from 1/1/03 to 4/30/17.

Tied to the Mast?

Given our expectation for rising interest rates and the stretched state of domestic equity valuations in the U.S., we increasingly look to alternatives to help provide proper diversification for the present environment. We expect they will offer greater potential returns with similar volatility to fixed income as interest rates increase, and we expect they will remain a meaningful diversifier when equity markets are jolted out of their current state of complacency. Odysseus tied himself to the mast so that the sirens' song didn't incite him to jump overboard. For investors, alternatives may provide some level of protection like rope did for Odysseus, so that they may sail smoothly past the sirens of complacency.

Definitions

Cyclically adjusted price-to-earnings (CAPE) ratio is a valuation measure usually applied to the U.S. equity market as measured by the S&P 500® index and is the current equity price over the 10-year average earnings.

S&P 500 index is a market capitalization-weighted index of 500 widely held stocks often used as a proxy for the U.S. stock market.

Bloomberg Barclays U.S. Aggregate Bond Index is composed of investment-grade U.S. government and corporate bonds, mortgage pass-through securities, and asset-backed securities and is commonly used to track the performance of U.S. investment-grade bonds.

Credit Suisse Hedge Fund Index is a fully-diversified, asset-weighted index that is often used as a proxy for multialternative asset class exposure.

The **CBOE Volatility Index** (VIX) is a key measure of market expectations of near-term volatility conveyed by S&P 500 index stock option prices.

About Pacific Life Fund Advisors

Established in 2007, Pacific Life Fund Advisors LLC (PLFA) provides multi-asset and balanced allocation solutions through its asset allocation, manager research, and investment risk management functionalities. PLFA is an SEC-registered investment adviser and a wholly owned subsidiary of Pacific Life Insurance Company (Pacific Life). As of March 31, 2017, PLFA manages approximately $37 billion in total assets.

Past performance does not guarantee future results.

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PLFA, a wholly owned subsidiary of Pacific Life Insurance Company, is the investment adviser to the Pacific Funds. PLFA also does business under the name Pacific Asset Management and manages certain funds under that name.

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