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The case for continued allocations to liquid alternatives

Investors began making substantial allocations to liquid alternatives over the past decade in order to decrease their reliance on traditional asset class returns and diversify their overall portfolios. We believe this was the correct decision to make. Unfortunately, in a world of uncertainty, the correct decisions do not always lead to the desired outcomes, especially over relatively short samples of time.

While at times we have shared with our clients a sense of disappointment in the performance of liquid alternatives, we have great confidence that allocating to them is the correct decision to make, and will lead to better outcomes in the long run. We will explain why we have this confidence through the following arguments and analyses.

The necessity to diversify is greater than ever

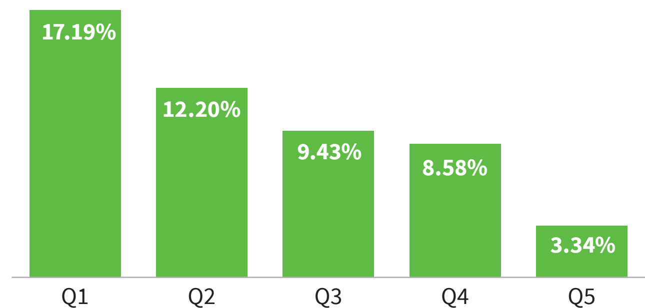
The opportunity to exploit diversification should always be appealing to investors, as it is the one true "free lunch" available, but it should be especially appealing to investors now given the current market environment of high equity valuations and relatively low bond yields, both of which are suggesting low expected excess returns over the next five years and beyond.

Figure 1 shows the relationship between 5-year forward equity returns and the starting Shiller P/E quintile. When stocks begin the period in the bottom quintile, as they are now, subsequent 5-year performance is less than half the long-term average return.

FIGURE 1

Relationship between 5-year forward equity returns and starting Shiller P/E quintile, 1926–2017

S&P 500 annual 5-year foward total returns



Sources: Bloomberg, IA SBBI, Robert Shiller.
Past performance is not a guarantee of future results.

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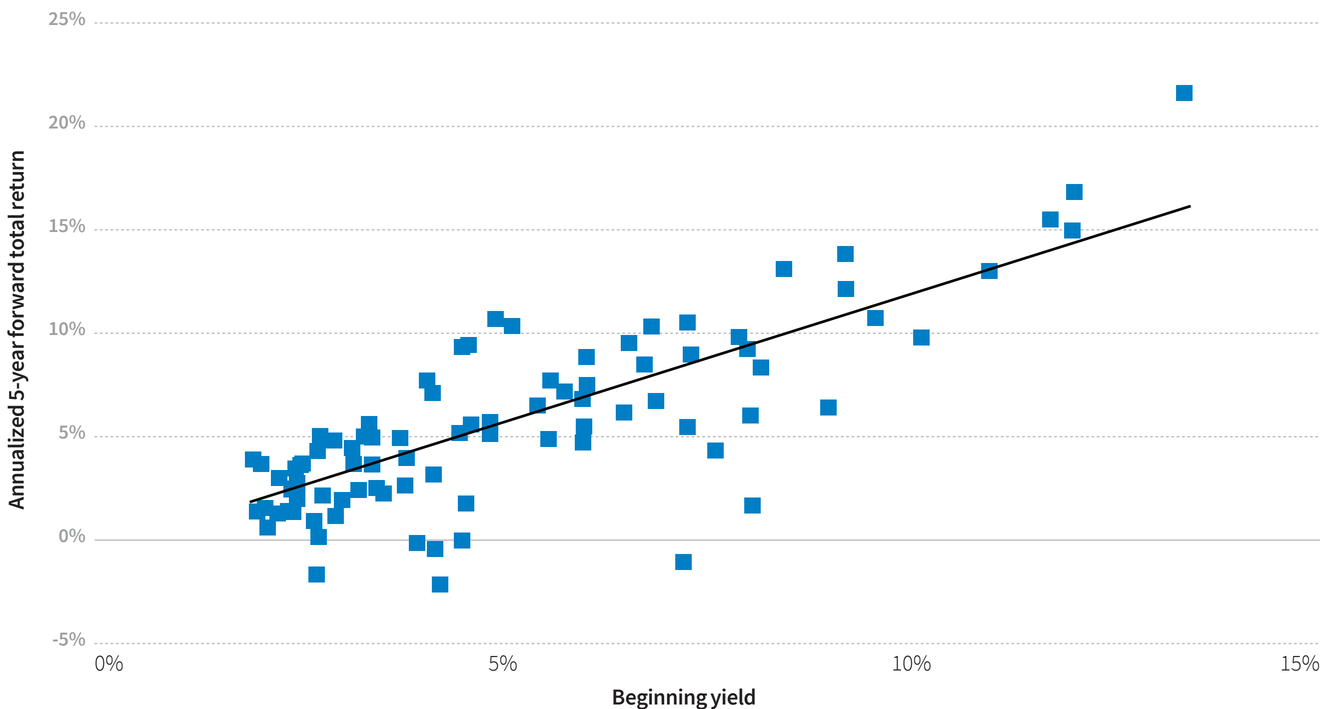
Figure 2 shows the relationship between 5-year forward long-term government bond returns and the starting bond yield. When bond yields are low, as they are now, subsequent 5-year total returns are generally lower than average. Both of these exhibits suggest that investors may experience significantly lower returns from traditional stock-bond portfolios in the coming years. This only increases the importance of diversifying portfolios with alternative sources of potential return, which is exactly what liquid alternatives aim to do.

FIGURE 2

Relationship between 5-year forward bond returns and starting bond yield, 1926–2017



Sources: Bloomberg, IA SBBI.

Shiller P/E is a cyclically adjusted P/E measure where earnings are smoothed 10 years. Indexes are unmanaged and do not incur expenses. You cannot invest directly in an index. Past performance is not a guarantee of futures results.

How liquid alternatives can help

According to our research (see Figure 3), in the long run, allocations to liquid alternatives can significantly improve the risk-adjusted returns of portfolios, even when the Sharpe ratios of liquid alternatives are modest and positively correlated with the original portfolio. Figure 3 shows the theoretical improvement in Sharpe ratio by adding an allocation to a liquid alternatives strategy, with a 0.5 Sharpe ratio and a 5% volatility, to an initial portfolio with a 0.5 Sharpe ratio and a 10% volatility.

The size of the allocation is varied along the x-axis and the correlation of the liquid alternatives strategy to the initial portfolio is varied along the y-axis. The green color indicates improvement in risk-adjusted performance. As this graphic shows, nowhere does the allocation to liquid alternatives hurt risk-adjusted performance, and depending on the correlation and allocation size, it can potentially make very significant improvements to the final Sharpe ratio.

FIGURE 3

Improvements in Sharpe ratio by including allocations to liquid alternatives

Correlation to original portfolio	Allocation to alt portfolio									
	10%	**20%**	**30%**	**40%**	**50%**	**60%**	**70%**	**80%**	**90%**	**100%**
0.00	0.03	0.06	0.09	0.13	0.17	0.20	0.21	0.17	0.10	0.00
0.05	0.03	0.05	0.09	0.12	0.16	0.18	0.19	0.16	0.09	0.00
0.10	0.02	0.05	0.08	0.11	0.15	0.17	0.17	0.15	0.08	0.00
0.15	0.02	0.05	0.08	0.11	0.13	0.15	0.16	0.13	0.08	0.00
0.20	0.02	0.04	0.07	0.10	0.12	0.14	0.14	0.12	0.07	0.00
0.25	0.02	0.04	0.07	0.09	0.11	0.13	0.13	0.11	0.07	0.00
0.30	0.02	0.04	0.06	0.08	0.10	0.12	0.12	0.10	0.06	0.00
0.35	0.02	0.04	0.06	0.07	0.09	0.11	0.11	0.09	0.06	0.00
0.40	0.02	0.03	0.05	0.07	0.08	0.10	0.10	0.08	0.05	0.00
0.45	0.01	0.03	0.05	0.06	0.08	0.08	0.09	0.08	0.05	0.00
0.50	0.01	0.03	0.04	0.05	0.07	0.08	0.08	0.07	0.04	0.00
0.55	0.01	0.02	0.04	0.05	0.06	0.07	0.07	0.06	0.04	0.00
0.60	0.01	0.02	0.03	0.04	0.05	0.06	0.06	0.05	0.03	0.00
0.65	0.01	0.02	0.03	0.04	0.04	0.05	0.05	0.04	0.03	0.00
0.70	0.01	0.02	0.02	0.03	0.04	0.04	0.04	0.04	0.02	0.00
0.75	0.01	0.01	0.02	0.03	0.03	0.03	0.03	0.03	0.02	0.00
0.80	0.01	0.01	0.02	0.02	0.02	0.03	0.03	0.02	0.02	0.00
0.85	0.00	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.01	0.00
0.90	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
0.95	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.00	0.00
1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Source: Putnam. As of November 2018.

Starting original portfolio represents a portfolio with a 0.5 Sharpe ratio and 10% volatility. The allocation to alt portfolio represents a portfolio with a Sharpe ratio of 0.5 and 5% volatility. The initial portfolio represents a Global 60/40 portfolio and is based on account allocations of 60% MSCI World TR Net Index unhedged and 40% FTSE World Government Bond Index unhedged. Past performance is not a guarantee of future results.

Support from a real-world example

The previous example illustrates the theoretical argument for including liquid alternatives, assuming they have a sufficiently high Sharpe ratio and sufficiently low correlation to the initial portfolio. Putnam has managed its Multi-Asset Absolute Return Strategy (MAARS) for close to ten years, so we have a large amount of actual performance data that can be used to demonstrate the potential value of adding liquid alternatives to a traditional stock-bond portfolio.

TABLE 1

Historical data for the past 117 months (9.67 years)

January 31, 2009, to September 30, 2018

	Return	Volatility	Sharpe ratio
MSCI	12.7%	13.7%	0.93
WGBI	1.7%	5.8%	0.30
60/40	8.3%	9.2%	0.90
MAARS (gross)	6.0%	4.5%	1.26
MAARS (net)	5.1%	4.5%	1.07
HFRXGL	1.9%	4.0%	0.46

Correlation					
	MSCI	WGBI	60/40	MAARS	HFRXGL
MSCI	1.00	0.10	0.96	0.69	0.69
WGBI	0.10	1.00	0.36	0.00	-0.09
60/40	0.96	0.36	1.00	0.65	0.63
MAARS	0.69	0.00	0.65	1.00	0.58
HFRXGL	0.69	-0.09	0.63	0.58	1.00

Source: Bloomberg.

MAARS return is for the Multi-Asset Absolute Return Composite. MAARS correlation is for a representative account and shown for illustrative purposes only. Each account is managed individually. Accordingly, account characteristics may vary. Past performance is not a guarantee of future results. An investment in this strategy can lose value. Please see the composite disclosures attached in this email for strategy-specific risk disclosures. Performance is stated in U.S. dollars and includes the reinvestment of dividends and interest. Returns less than one year are not annualized. HFRXGLA represents the HFRX Global Hedge Fund Index. The Global 60/40 is based on account allocations of MSCI World Index unhedged and FTSE World Government Bond Index unhedged.

Table 2 shows the Sharpe ratio over this period of a hypothetical portfolio that allocates a percentage to MAARS and the remaining percentage to a Global 60/40 portfolio. For the time period presented (January 31, 2009, to September 30, 2018), all allocations to MAARS improved the risk-adjusted performance of the combined hypothetical portfolio. This improvement is not too surprising given that MAARS had a significantly higher Sharpe ratio than the Global 60/40 over this period, but as Figure 3 showed, it would have improved risk-adjusted returns even if the Sharpe ratio had been lower.

TABLE 2

Sharpe ratio of combined hypothetical portfolio of MAARS and Global 60/40 stock-bond portfolio

Allocation to MAARS	Sharpe
50%	1.09
40%	1.05
30%	1.01
20%	0.97
10%	0.93
0%	0.90

Source: Putnam.

As of September 30, 2018. Sharpe ratio calculation is based on the percentages specified of the since inception (January 31, 2009) returns of a hypothetical combination of a global 60/40 portfolio and the Putnam Multi-Asset Absolute Return Composite. The Global 60/40 is based on account allocations of 60% MSCI World TR Net Index unhedged and 40% FTSE World Government Bond Index unhedged. Results were prepared with the benefit of hindsight. Actual results experienced by clients may vary significantly from the illustrations shown. Past performance is not a guarantee of future results.

Recent disappointment in liquid alternatives

Recent years have been disappointing for those investors that embraced liquid alternatives, including those that have allocated to MAARS. This is primarily due to unusually large differences between the risk-adjusted returns of equities and those of liquid alternatives. The Sharpe ratio of MSCI World (in USD) in the trailing 3-year period has been 1.37, which is more than triple the long-term Sharpe ratio of stocks over the prior century. Meanwhile, liquid alternatives have had lower Sharpe ratios over this period. MAARS has had a Sharpe ratio of 0.73 (gross of fees) and 0.53 (net of fees), and the HFRX Global Hedge Fund index has had a Sharpe ratio of 0.42 in the past three years, which is respectable but considerably lower than that of equities and the Global 60/40. When there is a very large difference between the risk-adjusted returns of liquid alternatives and the Global 60/40 portfolio, it becomes very difficult for liquid alternatives to improve the risk-adjusted performance of the combined portfolio.

TABLE 3

Portfolio data for trailing three years

September 30, 2015, to September 30, 2018

	Return	Volatility	Sharpe ratio
MSCI	12.74%	9.0%	1.37
WGBI	1.1%	5.8%	0.18
60/40	7.9%	6.1%	1.29
MAARS (gross)	3.7%	4.0%	0.73
MAARS (net)	2.9%	4.0%	0.53
HFRXGL	1.4%	3.4%	0.42

Source: Putnam.

For the period September 30, 2015, to September 30, 2018. Past performance is not a guarantee of future results. An investment in this strategy can lose value. Please see the composite disclosures attached in this email for strategy-specific risk disclosures. Performance is stated in U.S. dollars and includes the reinvestment of dividends and interest. HFRXGLA represents the HFRX Global Hedge Fund Index. The Global 60/40 is based on account allocations of 60% MSCI World Index unhedged and 40% FTSE World Government Bond Index unhedged.

Why have liquid alternatives had lower Sharpe ratios in the past three years? We have little transparency into what drives other products, but we can make some observations based on what we have experienced with MAARS.

MAARS relies heavily on quantitative strategies, which try to systematically capture alternative risk premia in equities such as Value, Momentum, Quality, and Defensive. The performance of these factors has been disappointing in recent years, although this kind of drawdown is not inconsistent with what we know about the long-term distribution of these factor returns. Sometimes they perform poorly for multi-year periods, but the historical evidence overwhelmingly suggests that these factors have significantly positive Sharpe ratios with little to no correlation with traditional asset class returns. We have no reason to believe that the recent drawdown is due to anything other than the normal variation in these factor returns and have committed to staying invested in these factors.

It may be useful here to again emphasize the difference between decisions and outcomes. When we do research and convince ourselves that a strategy puts the odds of a trade decisively in our favor, we believe we are making the correct decision, regardless of the outcome. Let's say I tell you that I am going to draw a ball from an urn and you know that six of the balls are green and four are red. If you have to place an even-money bet on the color of the ball that I pull out, then you should bet that the ball will be green. That clearly would be the correct decision. If I pull out a red ball, then you got a bad outcome, but you still made the correct decision. This is how we feel about strategies that have gone against us in 2018. We believe we are making the right decisions, based upon our historical analysis, but are simply getting bad outcomes. Our response in the face of bad outcomes under uncertainty should not be to question our process or change the way we make decisions.

While the statistical evidence and logical arguments can be useful for putting things in perspective, we cannot ignore the visceral effects caused by recent underperformance. We have been very frustrated by MAARS's recent struggles, especially with regard to negative returns during times of market crisis. When time series volatility spikes, as it has in recent days, cross-sectional volatility also spikes with very great reliability. This higher cross-sectional volatility results in higher volatility for market-neutral strategies, resulting in a much higher probability of getting an extreme outcome, either positive or negative. The good news is that if a strategy has a good outcome during these periods of high volatility, then it will likely be a very good outcome. Conversely, if it is a bad outcome, it will likely be a very bad outcome. Unfortunately, we have experienced the very bad outcomes more often than the very good outcomes recently. There are only a handful of these episodes, so it is not enough to draw any conclusions. Based on our risk models and our long experience trading these strategies, we do not believe that we are more likely to have bad outcomes than good outcomes in these volatile environments, which strongly suggests that we have simply been unlucky in a small sample of episodes.

Sticking with liquid alternatives

We fully understand why investors are questioning their allocations to liquid alternatives given the poor recent performance and the underwhelming diversification provided in the past three years. However, we think investors would be making a mistake if they abandoned their allocations now. The need to diversify away from traditional asset classes is greater than ever due to low expected returns in stocks and bonds, and the improvement to risk-adjusted returns from liquid alternatives is strongly supported by theoretical analysis and long-term performance data. We believe it would be a mistake for investors to decide that they made a bad decision allocating to liquid alternatives due to a bad outcome in the short run.

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