PIMCO

ASSET ALLOCATION OUTLOOK

August 2018
Midyear Update

Late-Cycle Investing

AUTHOR

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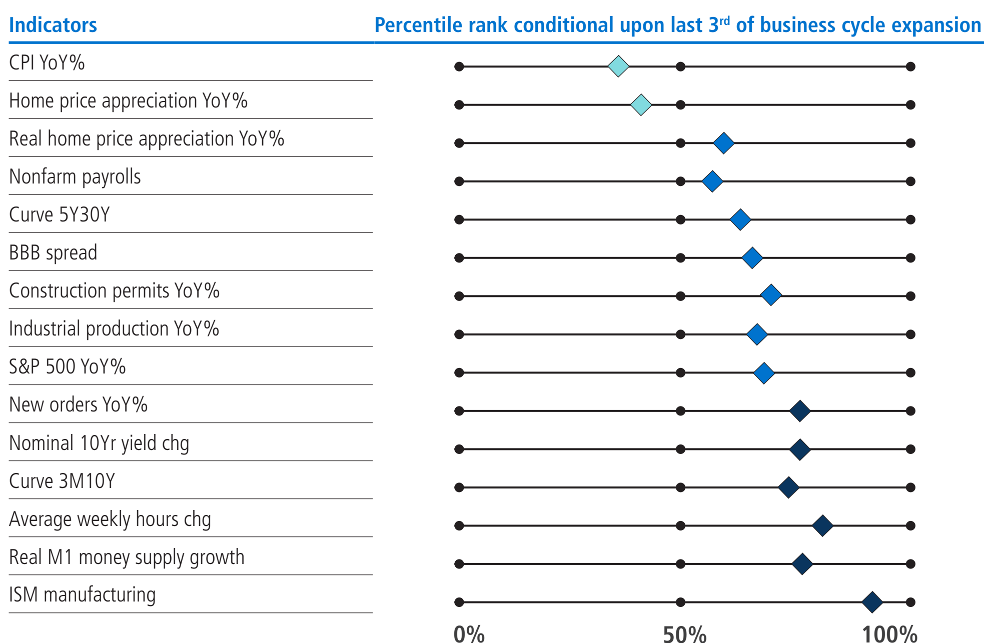
There are ample signs of change in the wind for investors. The Federal Reserve is raising short-term interest rates, and U.S. inflation is at target for the first time since 2012.

The global trade order that has existed for decades is being disrupted. Several economic indicators are running hot (see Figure 1) even as the current U.S. expansion has begun its tenth year. Volatility is higher as some investors price a dire outcome while others are more sanguine, creating relative value opportunities.

In this midyear update to our outlook, detailed in our paper "Singles and Doubles," we discuss some medium- to longer-term themes relating to late-cycle investing as well as some shorter-term opportunities arising from current market dynamics.

Figure 1: Several economic indicators running hot



Source: Haver Analytics, Bloomberg, PIMCO as of 30 July 2018. The diamonds in chart indicate the value of each indicator as a percentage versus previous third stages of expansions going back to 1968.

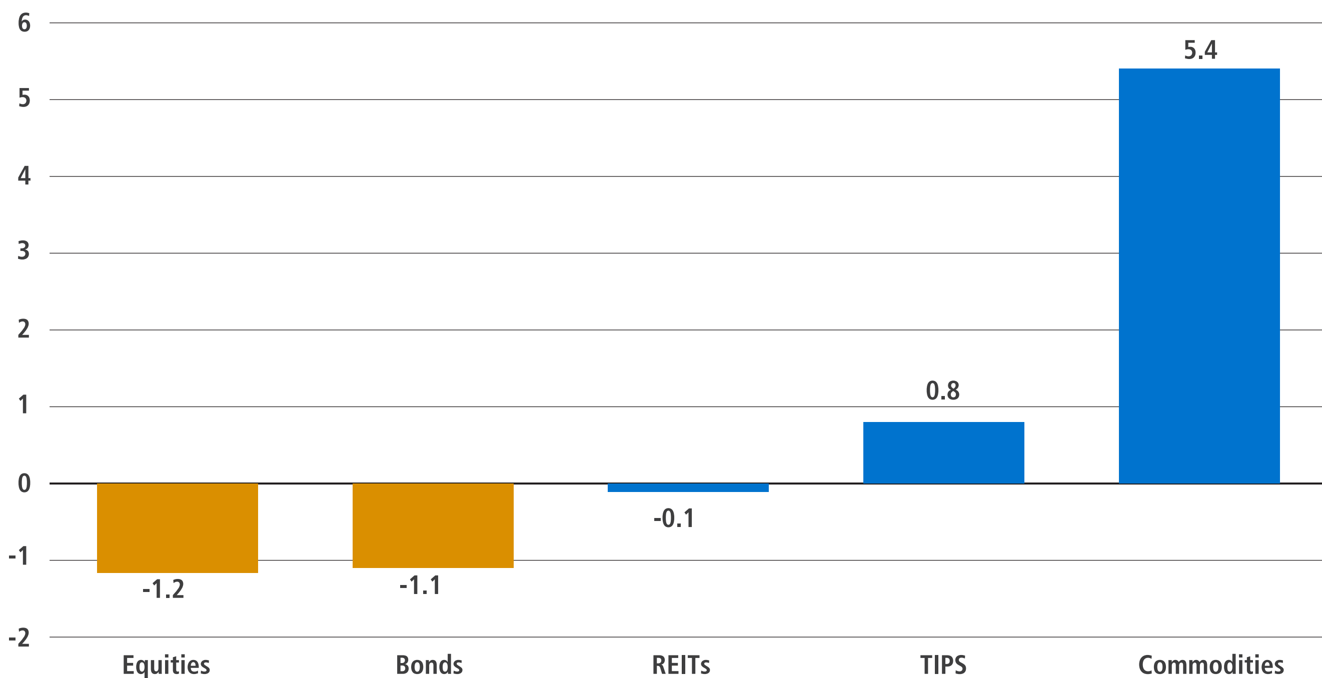
Four key themes

INFLATION

We see significant risk of an uptick in inflation, as detailed in our paper, "Inflation Awakening." We believe investors should understand the inflation sensitivity, or "inflation beta," of their portfolios. Traditional stocks and bonds tend to respond negatively to inflation surprises (see Figure 2), while real assets not surprisingly tend to respond positively; investors should verify and be comfortable with the inflation betas of their portfolios. In our view, many investors are underexposed to real assets – such as commodities and inflation-linked bonds – and that strategy has generally worked well over the last several years as shocks to risk assets were accompanied by fears of deflation, vastly diminishing the diversification properties of real assets. However, this may not hold true going forward.

Figure 2: Commodities, TIPS and REITs tend to be more closely linked to inflation than equities and bonds ex TIPS

INFLATION BETA



Inflation beta is a measure of the responsiveness of an asset's returns to observed changes in inflation. Real assets tend to exhibit positive inflation betas while nominal assets tend to exhibit negative inflation betas. This is particularly the case over longer time periods.

Hypothetical Example for Illustrative Purposes Only

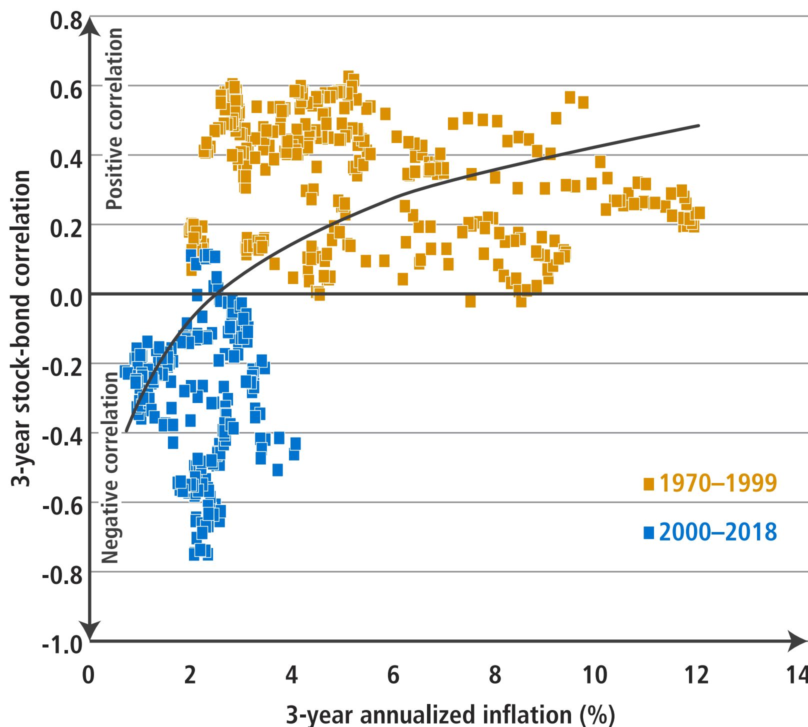
Source: Bloomberg, PIMCO, Kenneth French as of March 1974 – June 2018

Beta to changes in inflation based on regressions of quarterly rolling annual returns of the asset class versus changes in the annual rate of inflation (U.S. CPI). TIPS represented by Bloomberg Barclay's U.S. TIPS TR since inception: March 1997 – June 2018. Commodities represented by Composite Commodity Index model, which reflects a fully-collateralized total return index, whose methodology is based on Ibbotson's Strategic Asset Allocation and Commodities (2006). The index model is an equally-weighted, monthly rebalanced composite of the following six commodity indexes: S&P Goldman Sachs Commodity Index Total Return since 1970, Dow Jones-UBS Commodity Index Total Return since 1991, Reuters/Jefferies CRB Total Return Index since 1994, Gorton and Rouwenhorst Commodity Total Return Index (1959-2007), JPMorgan Commodity Futures Index (1970-2001), and Credit Suisse Commodity Benchmark Total Return Index since 2001. Bonds represented by Barclay's Intermediate Government Bond TR. Equities represented by S&P500 TR; EM currency by J.P. Morgan ELMI+ Composite Index; REITS represented by FTSE NAREIT All Equity REITs Total Return Index.

STOCK-BOND CORRELATIONS

When above-average inflation starts being a bigger risk than below-average inflation, bonds become a less reliable diversifier for equities and other risk assets. To be sure, high-quality bonds remain a crucial component of a portfolio allocation, in our view, because they are likely to be the best-performing assets in a recession. Also, as mentioned above, inflation-linked bonds are attractive before inflation accelerates. However, investors who count on large bond overlays to damp volatility of portfolios of risk assets may be in for some surprises. (See Figure 3. Also, recent PIMCO research focuses on the underlying mechanisms of the stock-bond relationship. For more, read "Treasuries, Stocks and Shocks.")

Figure 3: U.S. stock-bond correlations could shift if inflation climbs



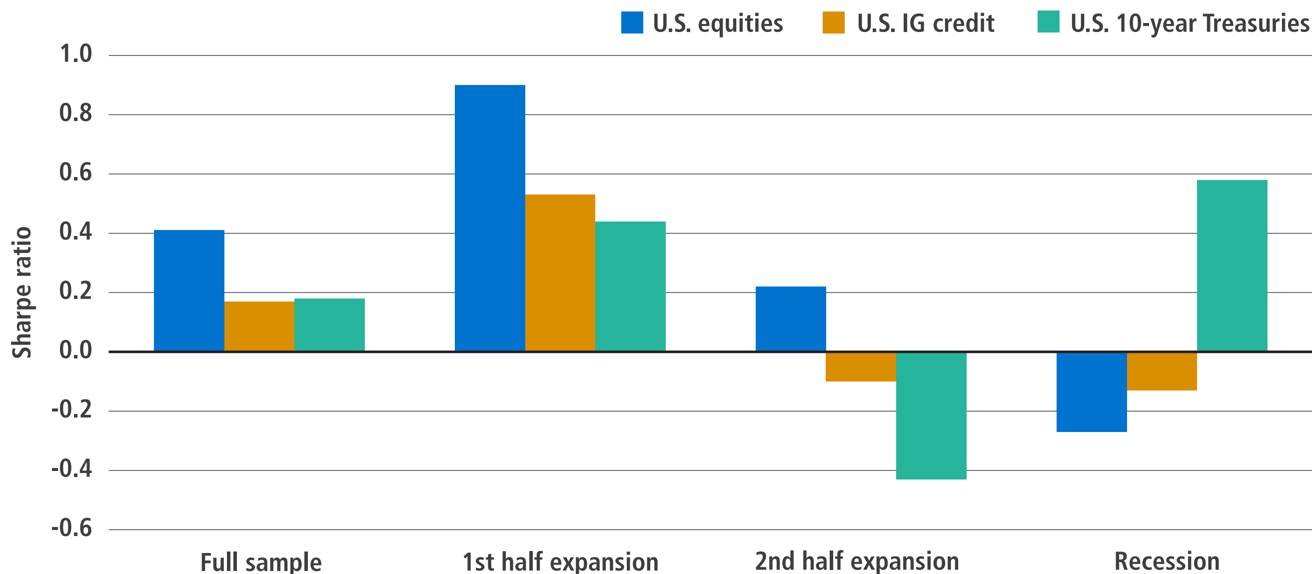
Source: PIMCO, Haver Analytics and Federal Reserve Bank of New York as of 31 May 2018. Stocks represented by S&P 500, bonds represented by 10-year U.S. Treasuries, inflation represented by Consumer Price Index, All Items (CPI-U).

DISPERSION

For the last several years, investors have been paid for being long just about any asset (other than commodities) as the exceptional influence of central bank liquidity and lower long-term rates boosted valuations. At this stage in the business cycle, however, with the Fed actively hiking rates and reducing the size of its balance sheet, valuations have become stretched and we should start to see greater dispersion in returns across sectors, regions and factor styles. As is well-known in equity markets, the momentum factor tends to underperform and the quality factor outperform late in the cycle. Similarly, credit spreads tend to underperform equities on a risk-adjusted basis and commodities tend to do well overall as demand starts to outstrip supply. Some of these themes have already begun to play out. Investors should, in our view, stress-test their portfolios at the factor level rather than asset class level to truly understand how it is likely to behave as this cycle plays out. This also underscores the importance of rigorous global research capabilities to pinpoint attractive opportunities in any sector while managing risks. The ability to better analyze the relative value between assets, countries and factors becomes more important than large beta bets.

Figure 4: Equities generally outperform credit throughout expansion phase of cycles

RISK FACTOR RETURNS OVER THE BUSINESS CYCLE (1955–2017)



As of 31 December 2017. Source: PIMCO; Gurkaynak, R., Sack, B., and Wright, J. (2006) FEDS paper; Kenneth French database; NBER. See below for more details regarding data sources.

Historical excess returns to the Treasury series are estimated from par rates provided by Gurkaynak, Sack, and Wright (full reference below), from the "H15" series of constant-maturity yields from the Federal Reserve, and Ibbotson Associates. After 1988, the 2-year, 5-year, and 10-year Treasury series are spliced with excess returns to the Barclays U.S. Treasury 1 to 3-year Index, the Barclays U.S. Treasury 3 to 5-year Index, and the Barclays U.S. Treasury 7 to 10-year Index.

From 1955-1969, U.S. equities total returns are taken to be that of the market factor from the Kenneth French database. From 1970-1987, U.S. Equities total returns correspond to that of the MSCI USA Index. After 1988, U.S. Equities are the excess returns to the S&P 500. Excess returns to Treasuries and Equities prior to 1988 are computed using the effective federal funds rate.

U.S. Credit excess returns are measured over duration matched Treasuries (all others are measured over cash). The history of U.S. Credit excess returns begins in 1973.

Recessions and Expansions are as defined by NBER. We divide Expansions into two equal calendar halves and present Sharpe Ratios in these sub-periods as well.

Gurkaynak, R., Sack, B., and Wright, J. (2006) 'The US Treasury Yield Curve: 1961 to the Present', FEDS paper 2006-28 Board of Governors of the Federal Reserve

VOLATILITY

Market volatility has been increasing for a number of reasons. To begin with, there is general uncertainty around a possible turn in the cycle. Another reason is the potential for implicit portfolio hedges (such as bond overlays) to become less predictable amid greater inflation risk, leading many investors to de-risk by selling assets and reducing leverage. In addition, the Fed is normalizing policy and perhaps re-striking the put (i.e., reassessing the state of economic downturn that would warrant a shift to easier policy or extraordinary measures). And all this is accompanied by something new: a potential change to the framework for global trade that has been in place for decades. These reasons suggest reducing portfolio volatility either explicitly or implicitly by going up in quality, reducing leverage, raising liquidity or purchasing downside hedges. Many investors avoid these strategies in the belief that they all mean reducing yield and giving up potential returns. However, in light of the uncertainties across many markets, we believe return potential over a two-year horizon will likely be better if these strategies are judiciously employed.

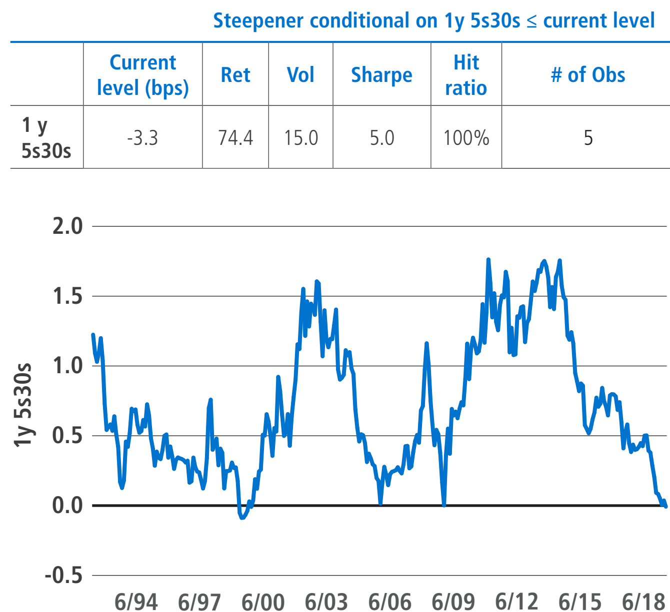
Five investment opportunities

With market dynamics shifting and the potential for greater change ahead, investors may find it difficult to determine optimal portfolio positioning. Here are five investment opportunities we see.

SHORTER MATURITY BONDS

Taking a simplified view, yield curves tend to flatten late in the cycle as the Fed hikes more than expected and then steepen in a recession as the Fed cuts rates. The yield curve has been following this playbook during this Fed hiking cycle, but for a number of reasons we think the flattening is overdone and the risk/reward trade-off favors fading this move. Three main

Figure 5: Historical performance of 5s30s swap curve steepener



Steepener conditional on 1y 5s30s ≤ current level

	Current level (bps)	Ret	Vol	Sharpe	Hit ratio	# of Obs
1 y 5s30s	-3.3	74.4	15.0	5.0	100%	5

Source: PIMCO and Bloomberg as of 29 June 2018. Chart shows the historical USD 1-year forward 5s30s swap curve. Ret is returns. Vol is volatility. # of Obs is number of observations.

reasons for the flattening (in addition to late-cycle Fed hiking) are the U.S. Treasury's decision to stop extending the weighted average maturity of its issuance, the anchoring effect of low long-term global rates, and the ability for U.S. corporations to currently deduct pension contributions at the 2017 tax rate of 39% rather than the new 20% tax rate, leading to a rush to buy long-dated bonds. We feel all of these are likely to reverse as the large U.S. deficit combined with the Fed's balance sheet unwinding will supply plenty of long bonds to the market, the European Central Bank is expected to end its own quantitative easing program by the end of this year, and the Bank of Japan signals possible flexibility in its pegging of the 10-year rate at 0%. Finally, the window for the higher deduction rate for pension fund contributions ends in September.

A simpler expression of this trade is to simply invest in shorter-term U.S. corporate bonds, which are offering more attractive yields than they have in years due to a combination of Fed rate hikes, accompanied by wider Libor and credit spreads. Their shorter maturity not only makes them less sensitive to higher rates, but they may also be more defensive in the event of a slowdown or recession.

BASKET OF EM CURRENCIES

Emerging market (EM) assets came off a torrid 2017, but have had a tough run in 2018 as Fed hikes, fears of tariffs and trade conflicts, and political uncertainty in Mexico, Brazil, Turkey and Argentina have weighed on the market. Emerging markets are indeed highly geared to global growth and global trade. Moreover, institutions often aren't mature enough to handle political change. Any unanticipated slowdown could lead to further underperformance. However, we feel the underperformance is overdone given current risks, and there are pockets of value in EM that rigorous research and an active management approach can uncover. As we discuss in the sidebar, there appears to be an unexplained risk premium associated with EM currencies, which leads us to conclude that a *diversified and appropriately sized* investment should be part of any long-term asset allocation.

EM currencies: A structural source of risk premium?

AUTHOR

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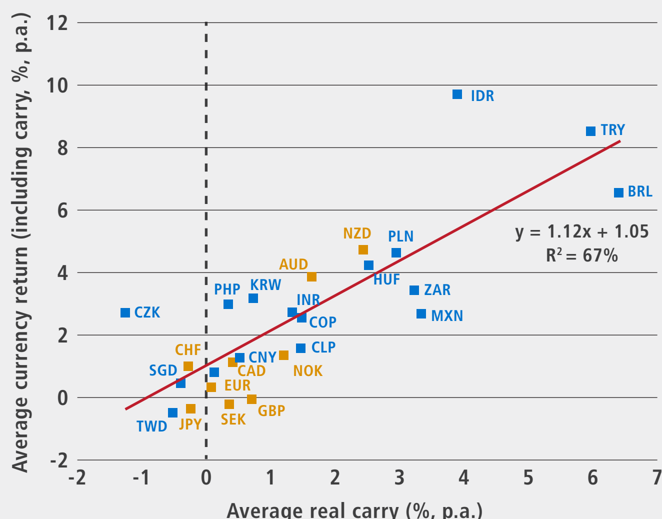
The classic foreign exchange carry trade has been studied extensively in academic literature since the late 1980s and tended to perform very well for a long period of time up until the global financial crisis. The trade relies on exchange rates not depreciating to offset the carry advantage of relatively high interest rate countries, and history has borne this out. Average currency returns over long sample periods line up with average real carry differentials versus the U.S. dollar (see Figure A).

Figure A: Average real carry versus realized currency returns against USD (1995–2018)



Source: PIMCO as of 31 May 2018

After the crisis, nominal and real carry differentials compressed significantly in developed markets, and the G-10 FX carry trade has consequently performed poorly since 2010 with only a modest outlook given the current global developed market rate environment. However, real rates in several EM countries such as Brazil, Mexico, Russia, India, Turkey, South Africa and Indonesia typically continue to be several percentage points higher than developed market real rates – and exposure to a basket of such currencies has been a relatively compelling candidate as a "structural" source of risk premium.

HISTORICAL PERFORMANCE OF THE EM CURRENCY CARRY TRADE

Since 1995, an investment in a basket of the five highest real carry emerging market currencies has had an annualized excess return of 6.9% against the USD with volatility of 10% and a Sharpe ratio of 0.69, according to our calculations, which compares favorably with the G-10 FX carry trade. Performance has also been relatively robust after the global financial crisis despite significant volatility in commodity markets, backlash against global trade and political turmoil globally.

Only part of the return can be explained as compensation for systematic market risk. After controlling for the empirical equity beta to the S&P 500, the Sharpe ratio is only modestly reduced to 0.5, which suggests investors are more than fairly compensated (i.e., they capture an abnormal risk premium) for the embedded macro risks in the trade (see Figure B). This abnormal risk premium makes the EM FX real carry trade an attractive, scalable trade for otherwise diversified global macro investors, with the potential to be a "structural" substitute for equity and credit risk in a multi-asset portfolio – especially when these are expensive.

Figure B: Risk properties of the EM currency real carry trade

Performance adjusted for systematic risks	
Sharpe ratio	0.69
Unconditional beta to S&P 500	0.32
Sharpe ratio net of equity beta	0.5

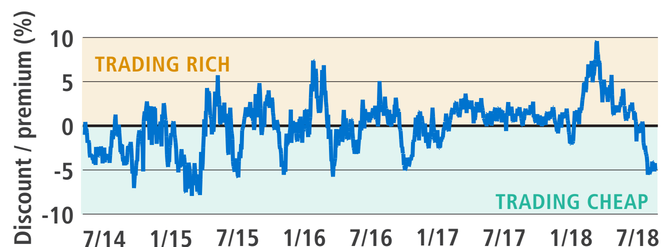
Source: PIMCO as of 31 May 2018

Since emerging market assets are more prone to sell-offs on sudden idiosyncratic risks or events, investors should size their exposures accordingly and employ a diversified approach that limits exposure to loss in a single country or event. Embedded indirect exposures to trade tensions, rising rates (e.g., the taper tantrum) and commodity prices can at times be mitigated by funding the EM real carry trade with short positions in currencies that tend to have similar risk exposures, but have less attractive valuations and real carry.

GOLD

Gold is a real asset that not only serves as a store of value but also a medium of exchange, and that tends to outperform in risk-off episodes. As such, one would expect gold to outperform during the recent period of rising inflation expectations along with rising recession risk. Yet counterintuitively it has been underperforming relative to its historical average (see Figure 6).

Figure 6: Gold is trading cheap relative to U.S. real yields



Source: Bloomberg as of 24 July 2018. Gold valuations relative to real yields on U.S. Treasuries. The terms "cheap" and "rich" as used herein generally refer to the price of gold that is deemed to be substantially under- or overpriced compared with U.S. real yields. There is no guarantee of future results or that a valuation will ensure a profit or protect against a loss.

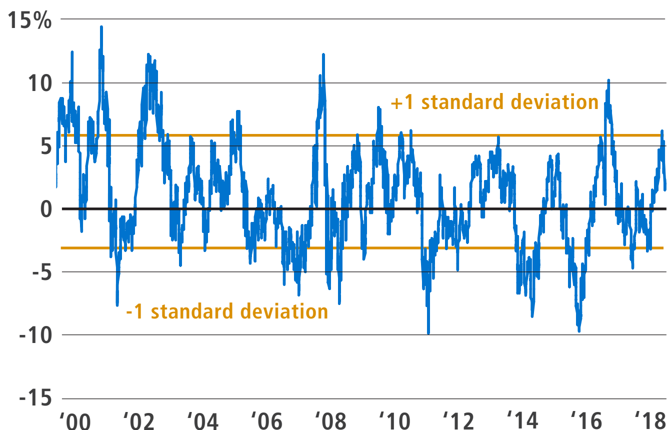
We believe this is because in the near term, gold's properties as a metal and as a currency are causing it to drop amid trade tensions and the stronger U.S. dollar, dominating its properties as a long-term store of value. This leads, in our view, to an opportunity to add a risk-off hedge to portfolios at an attractive valuation.

LARGE CAP VERSUS SMALL CAP

Small cap stocks have had a good run, outperforming the S&P 500 by close to 5% so far this year. One of the rationales for this outperformance is that small cap stocks are more domestically oriented and hence less exposed to trade wars and tariffs. While this view has some merits, we feel buying lower quality, lower value, higher volatility small cap stocks is unlikely to lead to outperformance should a real trade war commence. Consistent with the theme for high quality to outperform at this stage of the business cycle, and given attractive entry points, we favor an overweight of large cap relative to small cap.

Figure 7: Small caps have outperformed S&P 500 this year. Will it last?

Russell 2000 vs. S&P 500



Source: Bloomberg as of 26 July 2018

The chart presents the Russell 2000 versus the S&P 500 over time relative to their ratio's 200-day moving average.

ALTERNATIVE RISK PREMIA

Higher volatility and stretched valuations are likely to result in lower risk-adjusted returns from traditional risk premia like equity, duration and credit. While smart beta strategies have been proliferating recently, so far these have mostly focused on equities, an asset class that has been well-mined by academics but where it is still possible to find risk premia and alpha strategies that are uncorrelated to the business cycle.

Meanwhile, there is a rich universe of strategies available in the fixed income and commodity markets that can be combined with equities and currencies to form diversified portfolios that seek to harness the benefits of alternative risk premia. Including diversifying but liquid strategies is important, as many strategies that earn an "illiquidity" premium, such as private equity and venture investing, also have a high beta (correlation) to equity markets, which may not be desirable at the current phase of the business cycle.

Lofty valuations, an aging expansion and changing rules for global trade are leading to a tricky investment environment. While recession indicators are not flashing a red warning signal that a downturn is imminent, which would imply a retreat to a defensive position, they are flashing a yellow "caution" signal. This coupled with expectations for higher volatility suggest a regime of careful portfolio construction and opportunistic investments. In this piece we have highlighted four themes to consider when constructing portfolios and five opportunistic investments across asset classes that we believe will position investors for attractive risk-adjusted returns in the uncertain times ahead.

ASSET CLASS VIEWS

Here is how we are positioning asset allocation portfolios in light of our near-term outlook for the global economy and markets.

OVERALL RISK

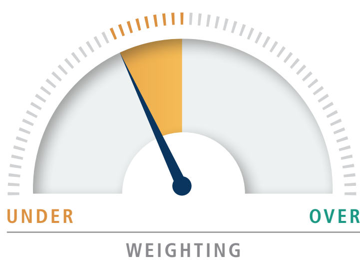
This late in the cycle, with valuations rich, the Federal Reserve raising interest rates, and the potential for recession in the medium term, we are neutral in our overall positioning. The expansion likely still has some room to run, but there is ample reason for highly selective relative value positioning and rigorous research on securities.

POSITIONING | **OPPORTUNITIES**

EQUITIES

U.S.
Europe
Japan
Emerging markets

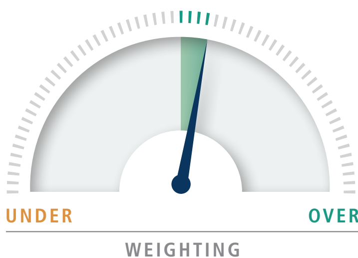
While we are more constructive on equities relative to other risk assets, in light of the recent rally we are maintaining an underweight to U.S. equities. Given valuations and in view of the late stage expansion, in the U.S. we have an overweight to banks and underweight to small cap stocks. We are modestly overweight Japanese equities given positive earnings, low leverage and still supportive Bank of Japan.



RATES

U.S.
Europe
Japan
Emerging markets

We remain defensive on interest rate exposure. However, in contrast to our views on equities, we find U.S. rates the most attractive in developed markets. Beyond the U.S., we find U.K. gilts and Japanese government bonds rich, and we believe valuations of eurozone peripheral bonds are suspect without continued ECB support. We favor the front end over long duration Treasuries and have a steepening bias in U.S. rates.



CREDIT

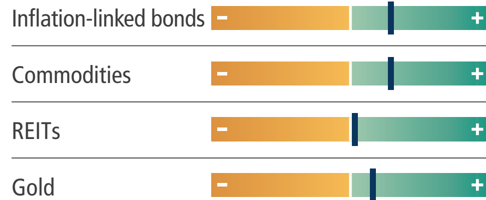
Securitized
Investment grade
High yield
Emerging markets

At this later stage in the business cycle, investors should appreciate the limited spread-tightening potential of corporate bonds as well as the downside potential for defaults or spread widening. Our credit allocation is focused on non-agency mortgage-backed securities, which should continue to benefit from an ongoing recovery in the U.S. housing market and remain well-insulated from many global risks. Our allocation to investment grade credit is focused on shorter-dated high quality corporates that now offer yields close to 3% without a lot of duration or credit risk.

POSITIONING

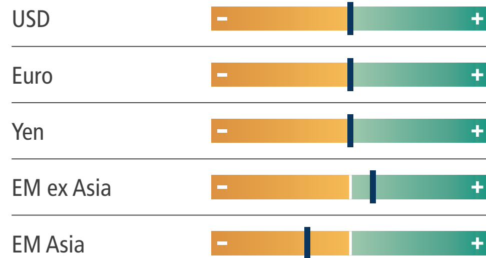
OPPORTUNITIES

REAL ASSETS



We maintain an overweight to real assets, with a focus on U.S. Treasury Inflation-Protected Securities (TIPS). Inflation expectations have risen recently, yet we believe there is still value in TIPS as the market is underpricing U.S. inflation risk. While we expect U.S. inflation to rise modestly above the Fed's target in the near term, longer-term risks remain. We find gold attractively priced as not just an inflation hedge but also a diversifier in the case of a financial crisis.

CURRENCIES



We continue to favor small tactical positions in some of the higher-carry "commodity currencies" given still-attractive valuations and an embedded risk premium that should benefit long-term investors. Asian economies have benefited inordinately from global trade, but are likely to weaken in the face of slowing Chinese growth.

PIMCO

Past performance is not a guarantee or a reliable indicator of future results.

All investments contain risk and may lose value. Investing in the **bond market** is subject to risks, including market, interest rate, issuer, credit, inflation risk, and liquidity risk. The value of most bonds and bond strategies are impacted by changes in interest rates. Bonds and bond strategies with longer durations tend to be more sensitive and volatile than those with shorter durations; bond prices generally fall as interest rates rise, and the current low interest rate environment increases this risk. Current reductions in bond counterparty capacity may contribute to decreased market liquidity and increased price volatility. Bond investments may be worth more or less than the original cost when redeemed. **Sovereign securities** are generally backed by the issuing government. Obligations of U.S. government agencies and authorities are supported by varying degrees, but are generally not backed by the full faith of the U.S. government. Portfolios that invest in such securities are not guaranteed and will fluctuate in value. **Inflation-linked bonds (ILBs)** issued by a government are fixed income securities whose principal value is periodically adjusted according to the rate of inflation; ILBs decline in value when real interest rates rise. **Treasury Inflation-Protected Securities (TIPS)** are ILBs issued by the U.S. government. **Equities** may decline in value due to both real and perceived general market, economic and industry conditions. Investing in **foreign-denominated and/or -domiciled securities** may involve heightened risk due to currency fluctuations, and economic and political risks, which may be enhanced in **emerging markets**. **Currency rates** may fluctuate significantly over short periods of time and may reduce the returns of a portfolio. **Commodities** contain heightened risk, including market, political, regulatory and natural conditions, and may not be suitable for all investors. **High yield, lower-rated securities** involve greater risk than higher-rated securities; portfolios that invest in them may be subject to greater levels of credit and liquidity risk than portfolios that do not. **Mortgage- and asset-backed securities** may be sensitive to changes in interest rates, subject to early repayment risk, and while generally supported by a government, government-agency or private guarantor, there is no assurance that the guarantor will meet its obligations. **REITs** are subject to risk, such as poor performance by the manager, adverse changes to tax laws or failure to qualify for tax-free pass-through of income. Investments in **private assets** could be volatile; an investor could lose all or a substantial amount of its investment. **Tail risk hedging** may involve entering into financial derivatives that are expected to increase in value during the occurrence of tail events. Investing in a tail event instrument could lose all or a portion of its value even in a period of severe market stress. A tail event is unpredictable; therefore, investments in instruments tied to the occurrence of a tail event are speculative. **Derivatives** may involve certain costs and risks, such as liquidity, interest rate, market, credit, management and the risk that a position could not be closed when most advantageous. Investing in derivatives could lose more than the amount invested. **Diversification** does not ensure against loss.

Management risk is the risk that the investment techniques and risk analyses applied by the investment manager will not produce the desired results, and that certain policies or developments may affect the investment techniques available to the manager in connection with managing the strategy. There is no guarantee that these investment strategies will work under all market conditions or are suitable for all investors and each investor should evaluate their ability to invest long-term, especially during periods of downturn in the market. Investors should consult their investment professional prior to making an investment decision.

Hypothetical and simulated examples have many inherent limitations and are generally prepared with the benefit of hindsight. There are frequently sharp differences between simulated results and the actual results. There are numerous factors related to the markets in general or the implementation of any specific investment strategy, which cannot be fully accounted for in the preparation of simulated results and all of which can adversely affect actual results. No guarantee is being made that the stated results will be achieved.

The **correlation** of various indexes or securities against one another or against inflation is based upon data over a certain time period. These correlations may vary substantially in the future or over different time periods that can result in greater volatility.

Smart beta refers to a benchmark designed to deliver a better risk and return trade-off than conventional market cap weighted indices.

The terms **"cheap"** and **"rich"** as used herein generally refer to a security or asset class that is deemed to be substantially under- or overpriced compared to both its historical average as well as to the investment manager's future expectations. There is no guarantee of future results or that a security's valuation will ensure a profit or protect against a loss.

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