Real Growth Matters For Asset Markets-

The Global Financial Crisis 10 Years On

Febr 2019 | Kurt Winkelmann, Raghu Suryanayaranan, Ferenc Szalai

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Why This Matters?

This note looks at recent developments in US equity and bond markets in the context of the decade following the global financial crisis of 2008. We analyse the performance of asset markets and factor-based strategies through the lens of our macro-based models. These models suggest markets are pricing in lower uncertainty about long run growth and a reduction in trend growth. For investors who care about long horizon returns and risk, our models continue to point to lower long run equity returns, lower growth-sensitive factor premium relative to defensive, and low real bond yields. Our results have implications for both asset allocation and savings decisions.

Who Should Read This Paper?

The issues in this paper are important for assessing long-term returns on assets, and should be of interest to investment strategists and asset allocators.

After nearly a decade of continued rise since the 2008 global financial crisis, equity markets corrected sharply in the past quarter – the steepest drop post-crisis – largely erasing gains accumulated since the November 2017 tax cuts and jobs act. Since then, markets seem to have recovered. Growth-sensitive factor-based strategies underperformed the market, while defensive factor-based strategies outperformed. At the same time, the persistent rise and recent fall in equities coincided with the persistent decline to ultra-low levels and recent moderate rise in real bond yields. Our models indicate that these trends in equity and bond markets are consistent with changes in long-term real economic growth and uncertainty: lower trend growth, driven by lower and stagnant growth in total factor productivity (TFP) and hours worked, and a prolonged period of high uncertainty followed by a decline in the past two years. Geopolitical events including trade wars and shutdowns should only matter in so far as they have an impact on the long-term trend. ***According to our models, these fundamental trends suggest lower long run equity returns, a potential reversal in the relative performance of growth-sensitive and defensive factor-based strategies, and the continuation of low real bond yields.*** They also suggest geopolitical events including trade wars and the government shutdown should be assessed in the context of their impact on the long run drivers of returns: TFP growth and hours worked.

Exhibit 1 - Equity market back on trend, low real bond yields

SOURCE: NAVEGA STRATEGIES LLC RESEARCH, FEDERAL RESERVE BANK OF ST. LOUIS, KENNETH FRENCH WEBSITE (http://mba.tuck.dartmouth.edu/pages/faculty/Ken.French/data_library.html)

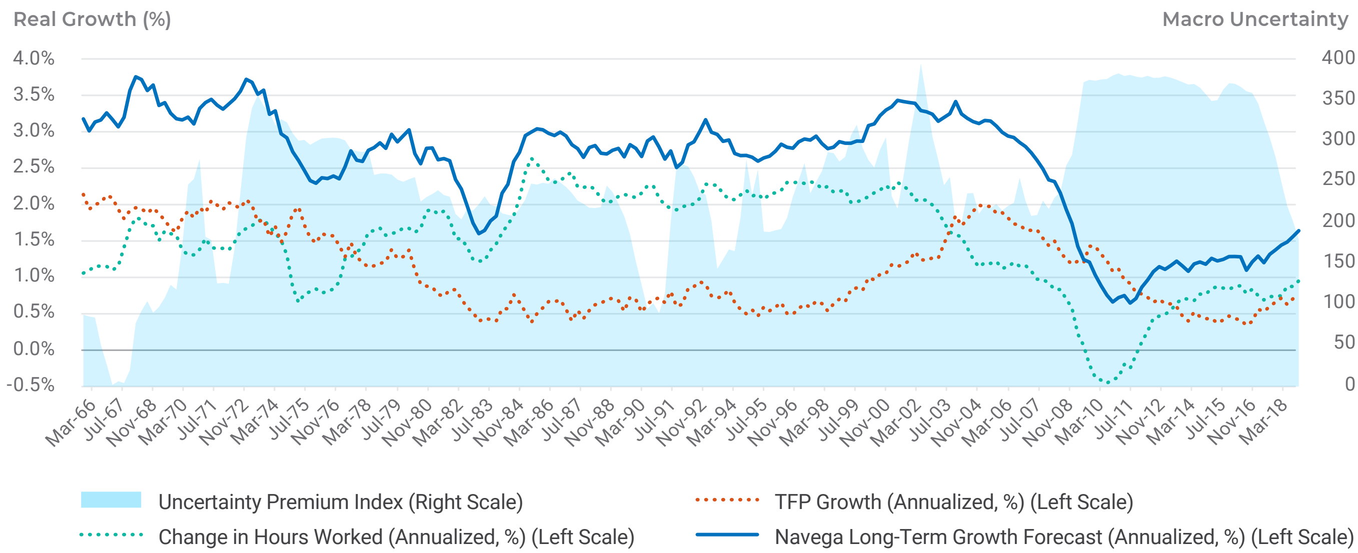
Exhibit 1 shows the joint evolution of 10-year constant maturity US inflation-linked Treasury bond yields since January 2007 (right scale); the return to the broad US equity market, and growth-sensitive and defensive factor-based strategies returns. Real yields experienced a significant drop following the 2008 global financial crisis, from about 3% to near zero levels, turning negative from May 2012 to May 2013, and persisting at ultra-low levels through 2017. Since then, real yields have increased about 55bps. Over the same period, the US stock market experienced its largest post-World War II decline in the last quarter of 2008, (losing more than half of its value) followed by a long, nearly uninterrupted positive stretch through September 2018. However, the steep correction that ensued in the past quarter erased the gains accumulated since the November 2017 tax cuts and jobs Act. Overall since 2007, the annualized, inflation-adjusted gain in equities was about 4.7% per year. Interestingly, over this period a growth-sensitive portfolio underperformed the market by about 140bps per year, while the defensive portfolio outperformed, by about 130bps per year.[1]

The issue for long horizon investors is how to assess these equity and bond market trends for the years to come. To grapple with this issue, we suggest taking a longer-term perspective, focusing on the fundamental macro drivers of long-term returns and risk. ***According to our models, trend changes in equity returns and real bond yields in the past 10 years jointly reflect markets' expectations of a significantly lower, stagnant long-term growth since the 2008 global financial crisis, and persistently higher long-term trend uncertainty through 2016, followed by a decrease through 2018.***

Exhibit 2 shows since March 1966, the evolution of our model forecast for long-term real GDP growth (left scale), and its two contributors: total factor productivity (TFP) growth and change in hours worked. According to the Exhibit, our forecast for long run real growth is around 1.6%- still well below the pre-2008 global financial crisis trend of about 3%. This persistent stagnation is driven by the continuation of low growth in both total factor productivity (TFP) and the labor force (hours worked). The exhibit also shows the evolution of our uncertainty premium index (right scale). This index captures the equity and bond market valuation of long run real growth uncertainty. Increases in macro uncertainty are driven by persistent, negative shocks to long run growth, as experienced around the 2008 global financial crisis. ***Since 2016 long run growth seems to have stabilized, albeit at historically lower levels. Consequently, macro uncertainty has receded. Over the past two years, our index has decreased about 50%, from 300 in 2017 back to pre-crisis levels of about 150.***

[1] The defensive factor portfolio is a long-only portfolio tilted towards the Navega Profitability factor. The growth-sensitive factor portfolio is a long-only portfolio tilted towards the Navega Value and Size factors. The growth sensitive and growth defensive portfolios are optimized with respect to shocks to real macroeconomic growth.

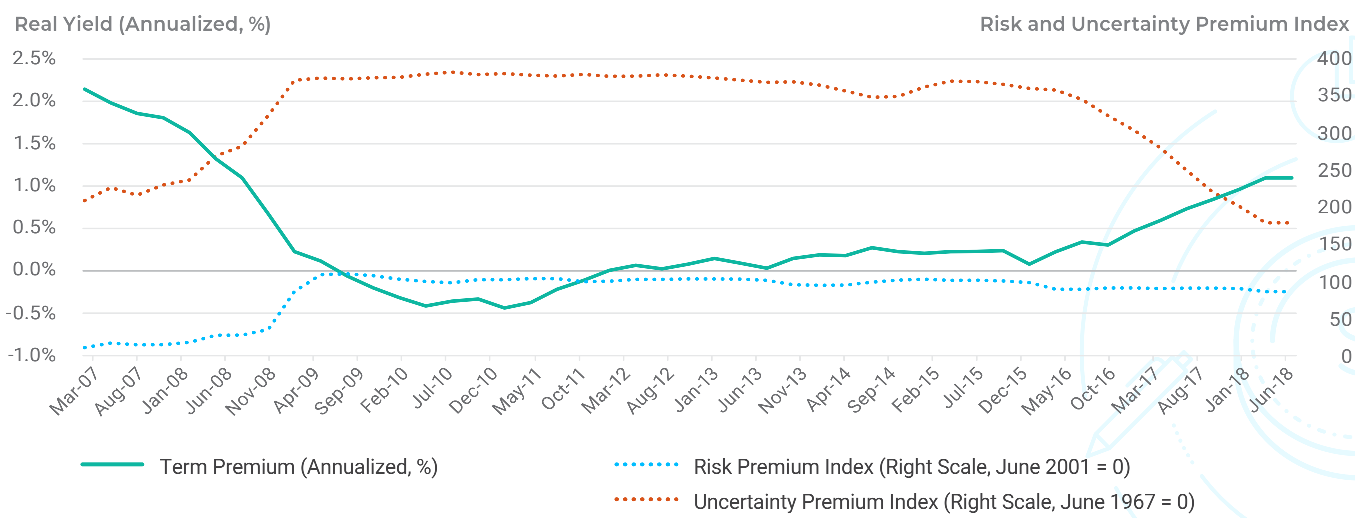
Exhibit 2 - Lower Long-Term Real Growth and Receding Macro Uncertainty



SOURCE: NAVEGA STRATEGIES LLC RESEARCH, FEDERAL RESERVE BANK OF SAN FRANCISCO

What are the implications for real bond yields and equity returns? Exhibit 3 depicts since September 2007, the evolution of our model-implied term premium (10-year constant maturity real bond yield in excess of cash rate), along with our risk premium and uncertainty premium indexes. The risk premium index reflects how markets price short-term real GDP growth volatility. Both risk and uncertainty premia indexes reflect the overall macro risk (short-term and long-term). And together with our forecast for long-term growth, they drive the real yield, term and equity premia.

Exhibit 3 - Low Real Bond Yields Going Forward



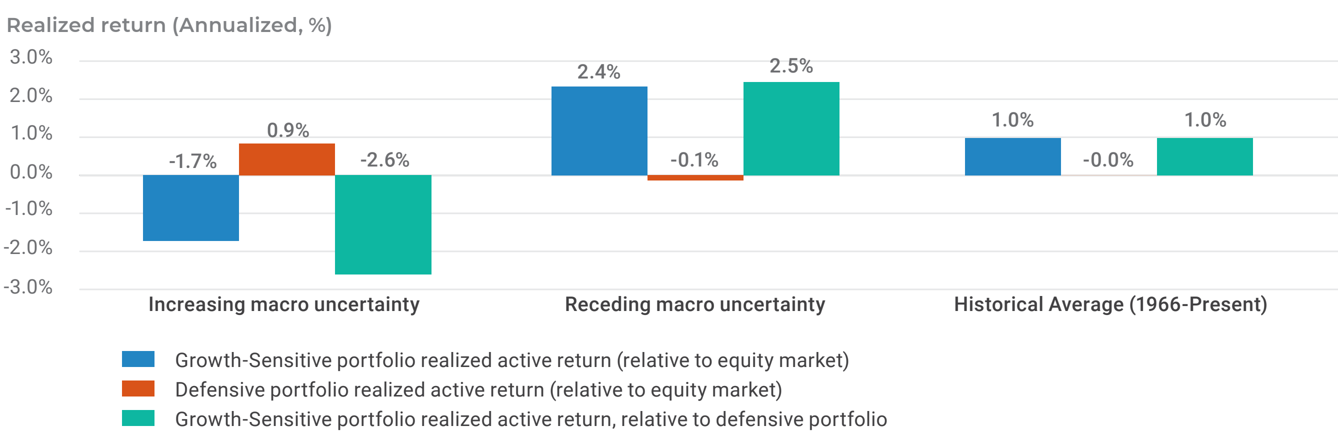
SOURCE: NAVEGA STRATEGIES LLC RESEARCH

According to our models, the large 200bps drop in real yields in 2008 and the subsequent, prolonged period of ultra-low real yields through 2016 were driven primarily by markets' expectations of a long period of significantly lower trend growth, and persistently higher macro uncertainty. The decline in uncertainty in the last 2 years to near pre-crisis levels has led to a modest increase in real yields (about 50bps). However continued stagnation in long-term growth suggests implies this rise in yields is likely to be limited, with real yields remaining low compared to historical standards.

To deconstruct long run equity returns, investors should focus on asset cash-flows and identify their exposure (cash-flow beta) to long-term macro uncertainty. In our models, cash-flow betas matter as they drive and differentiate long-term return premia across portfolios. Our models show that return premia are compensation for cash-flow beta. As a result, return premia increase with macro uncertainty. Moreover, growth-sensitive portfolios, with higher cash-flow betas relative to the market, command higher expected returns in the long run in excess of the market, in compensation for greater cash-flow losses in times of increasing macro uncertainty. Conversely, defensive portfolios, that exhibit lower cash-flow betas relative to market, command lower expected returns in the long run. Exhibit 4 supports this fundamental relationship between macro uncertainty, cash-flow beta and return premia. Indeed, we find that the growth-sensitive portfolio outperformed the market on average over long periods (from January 1966 to June 2018), while the defensive portfolio underperformed the market. In addition, the relative performance growth-sensitive and defensive portfolios depends on changes in macro uncertainty. ***In our models, the growth-sensitive (defensive) portfolio underperformed (outperformed) on average when macro uncertainty rose, as in the past 10 years, and out performed (underperformed) on average when macro uncertainty receded.***

Going forward, receding and lower macro uncertainty around a low, stagnant long-term trend growth suggests diminished prospects for long-term real equity returns. It also suggests a potential reversal in the relative performance of growth-sensitive and defensive portfolios compared to the past 10 years, with growth-sensitive portfolios outperforming the market and defensive portfolios.

Exhibit 4 - Macro Uncertainty Drives Return Premia



SOURCE: NAVEGA STRATEGIES LLC RESEARCH, FEDERAL RESERVE BANK OF ST. LOUIS, KENNETH FRENCH WEBSITE (http://mba.tuck.dartmouth.edu/pages/faculty/Ken.French/data_library.html)

Taken together, the evolution of real bond yields, equity market returns and factor-based strategy returns since the 2008 global financial crisis are jointly consistent with markets' expectations of stagnant and lower long run real economic growth, and persistently higher uncertainty from 2008 to 2016, followed by a decline in uncertainty through 2018. Going forward, investors focused on long-term solutions should expect a continuation of low real yields, lower real equity returns, and a decline in the growth-sensitive factor premium relative to market and defensive factors. For the purposes of portfolio strategy, investors would be well-advised to re-examine asset allocation decisions AND savings (contribution) decisions.

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