# Less Macroeconomic Uncertainty
## But Lower Long Run Growth

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### Why This Matters?

This note takes a long run, macro view of the recent developments in US equity and bond markets, from the perspective of our models. It argues that investors have priced in a reduction in uncertainty about long run growth and a reduction in trend growth, driven by stagnant growth in TFP and the labor force. For investors who care about long horizon returns and risk, our models point to lower long run equity returns and a continuation of low real bond yields.

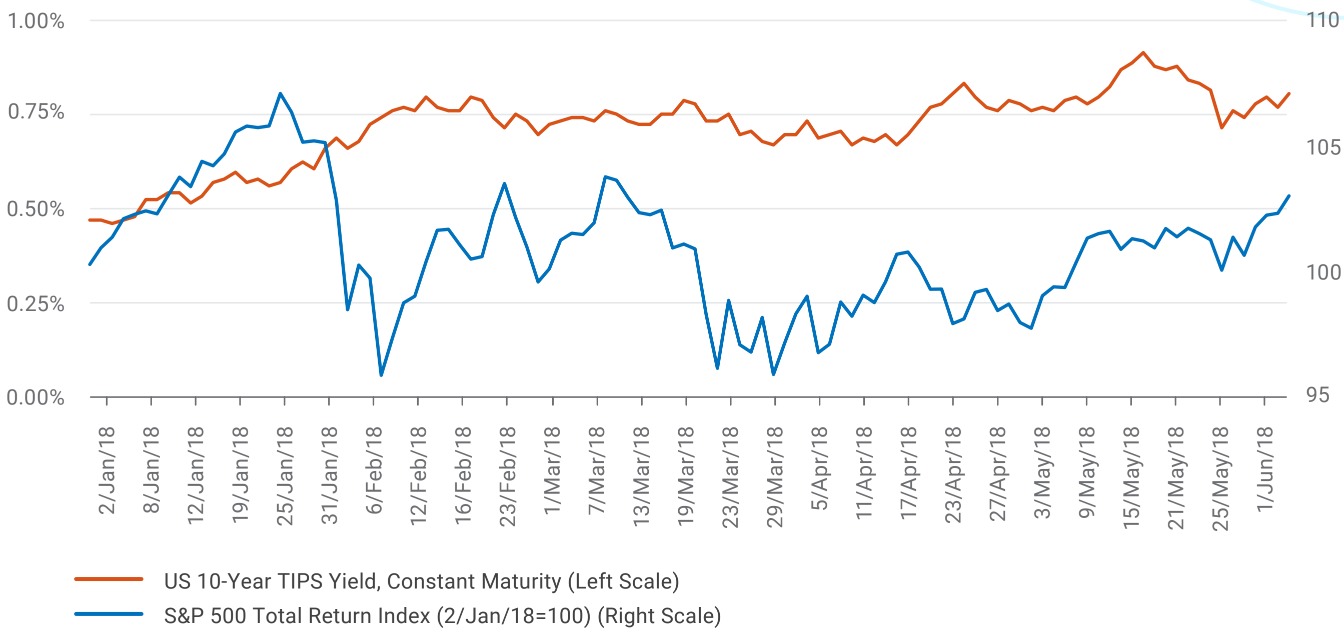
### Who Should Read This Paper?

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.

**Since the beginning of 2018**, equity returns have been mostly flat, and real bond yields have risen slightly but still remain low. Our models suggest that both phenomena can be accounted for by a reduction in uncertainty about long-term growth and a reduction in trend growth. In short, investors have priced in a continuation of low growth in total factor productivity (TFP) and hours worked.

For investors who care about long-term returns, our models suggest that these trends point to lower long-run equity returns and a continuation of low real bond yields. And, our results suggest that investors should interpret geopolitical events and tax cuts only in the context of their impact on the fundamental drivers of returns—TFP growth and hours worked.

### Exhibit 1 - A Flat Equity Market and Slightly Higher Real Bond Yields

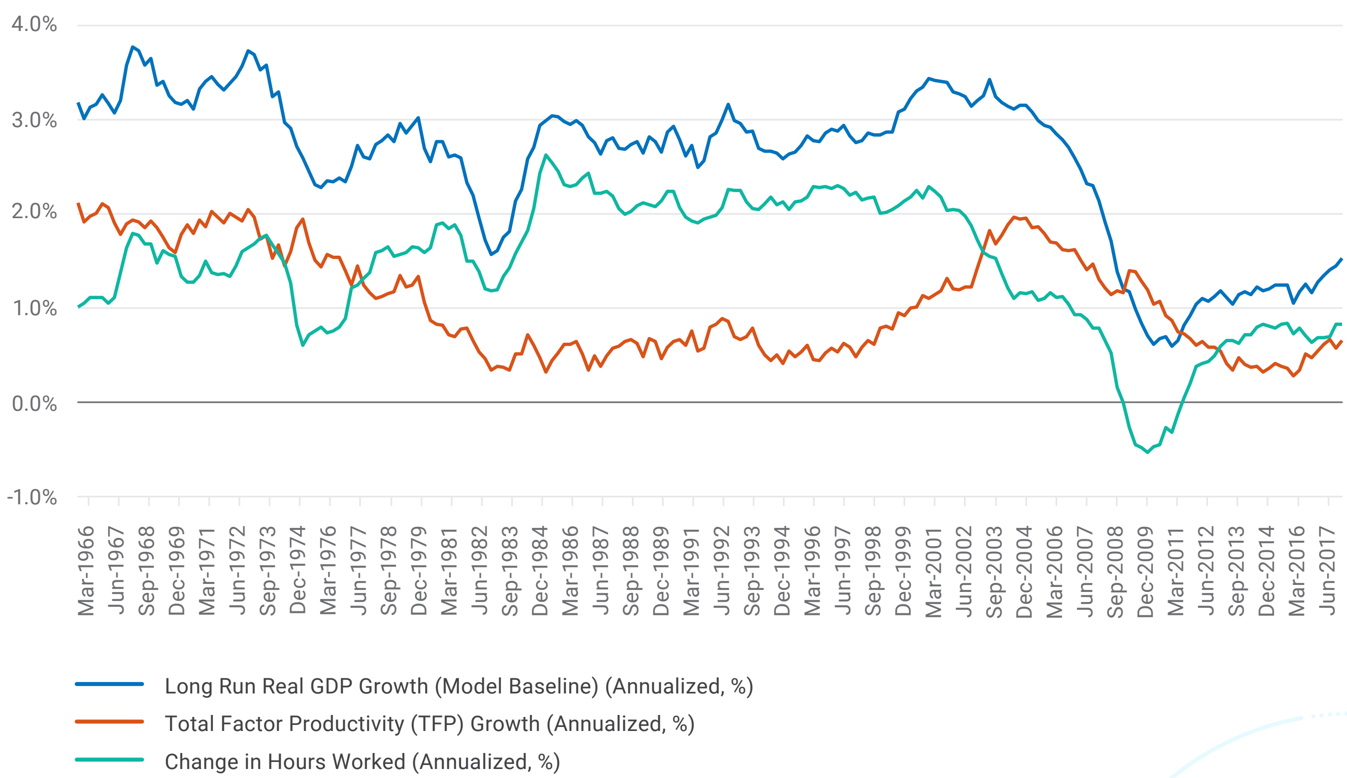



*The Exhibit shows the daily evolution of the S&P 500 total return index (Right Scale) and yield on U.S. 10-year constant maturity Treasury Inflation Protected Securities (TIPS) (Left Scale) from January 2nd to June 6th 2018.*

SOURCE: FEDERAL RESERVE BANK OF ST. LOUIS

**Exhibit 1 shows that** the yield on 10-year US inflation-linked treasury bonds increased almost 40 bps since the start of the year, while the US stock market remained roughly flat. Increasing real yields reflect markets' expectations of improvements in long run growth and/or a decline in uncertainty about long run growth. The stock market helps differentiate between the two effects. According to our models, increases in long run real growth imply higher equity cash-flow growth and returns. By contrast, lower levels of macro uncertainty imply lower equity premia (the expected difference between return and bond yield). A flat stock market rules out an increase in long run trend growth, but can be consistent with a drop in macro uncertainty.

**Exhibit 2 -** Lower Long Term Real Growth, Driven By Stagnation in TFP and Labor Force Growth

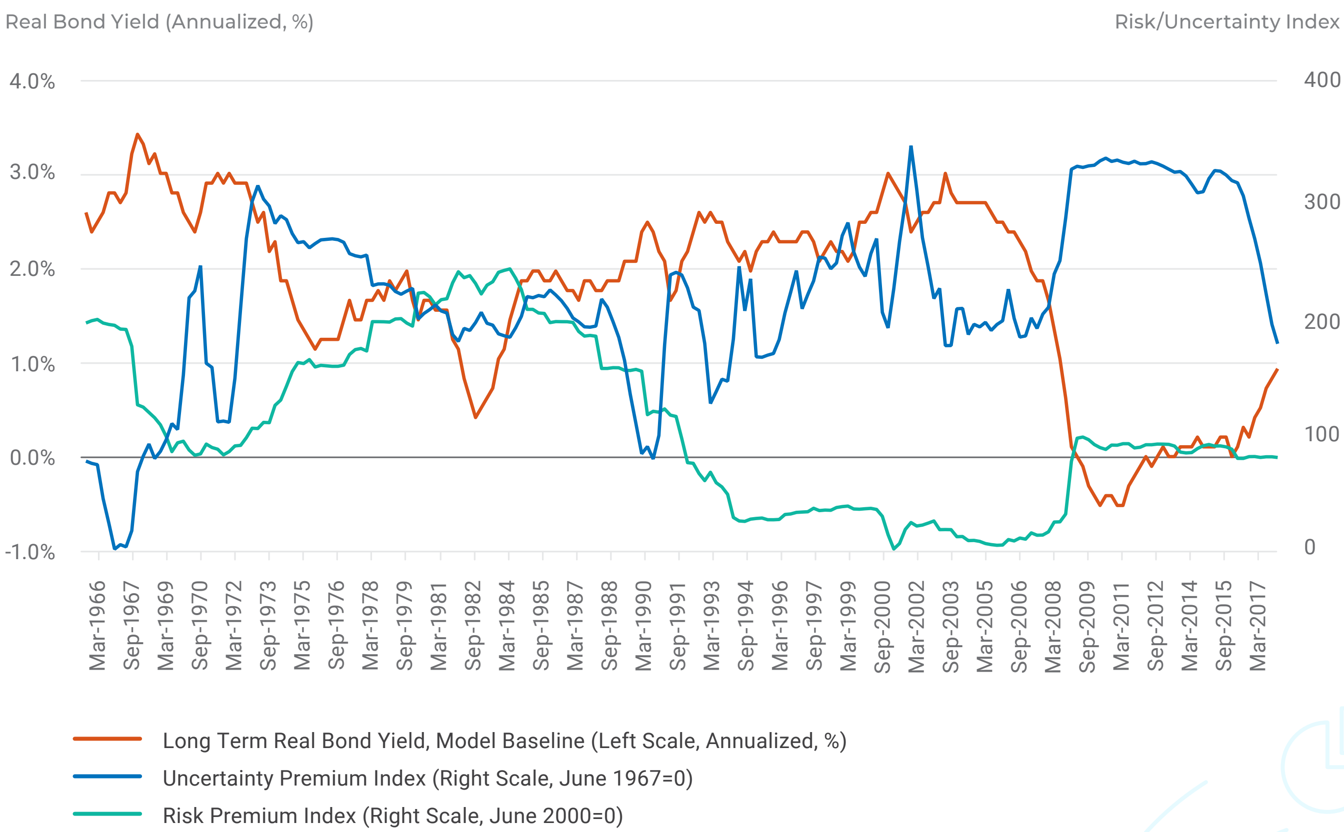



*The Exhibit shows the evolution of our model forecast for long term real GDP growth since March 1966 and its two contributors: total factor productivity (TFP) growth and change in hours worked. All rates are quarterly, annualized percentage rates.*

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

**Exhibit 2 suggests that** long run real growth will continue to be stagnant. The exhibit portrays the evolution since 1966 of our forecast for long run US real GDP growth and its two contributors: changes in total factor productivity (TFP) and in the labor force (hours worked). TFP growth is a proxy for long-term growth per capita. It measures the impact of innovation and efficient allocation of resources on growth, after accounting for capital and labor. The principal conclusion is that our forecast for long run economic growth of 1.6% remains well below its 3% average from 1966 to 2008. This decline has been driven by a continued decrease and then stagnation in both TFP growth and the labor force from 2000.

**Exhibit 3 -** Receding Macro Uncertainty




*The Exhibit shows, since March 1966, the evolution of long term real bond yields (left scale) implied by our model and our model derived risk and uncertainty indexes (right scale).*

SOURCE: NAVEGA STRATEGIES LLC RESEARCH

**Exhibit 3 confirms** the recent decline in macro uncertainty, as priced in by both real bond and equity markets. The Exhibit shows the real long bond yield as calculated by our models, and indexes of risk and uncertainty premia. The risk premium reflects how markets price short-term real GDP growth volatility, while the uncertainty premium captures the valuation of long run growth uncertainty. Increases in macro uncertainty are driven by persistent declines in long run growth. More recently, as long run growth stabilized, macro uncertainty and return premia have receded. However uncertainty is narrowing around a much lower trend compared to the 1980s. Thus, although the real yield increased, it still remains low, below 1%. The combination of lower trend growth and lower macro uncertainty should lead investors to revise their expectations of long run equity return downwards.

**Investors who are concerned** about long run solutions should focus on the long-term determinants of real growth—TFP growth and labor force growth. Our models suggest that markets are pricing in lower trend real growth and lower uncertainty around that trend. Both of these effects are consistent with lower real expected equity returns going forward.

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