Markets Discount High Inflation

What About Government Finances?

July 2018 | Kurt Winkelmann, Raghu Suryanayaranan, Ferenc Szalai

Navega Strategies LLC.

www.navegastrategies.com

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Why This Matters?

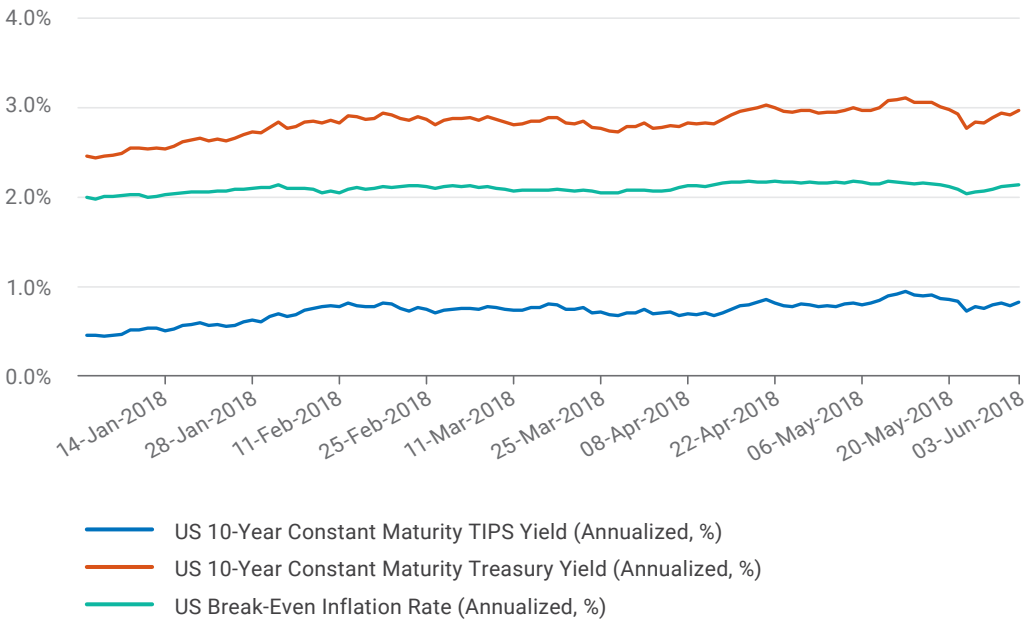
This note discusses the implications of the recent increases in interest rates by the U.S. Federal Reserve for long run inflation. According to bond market pricing and our baseline scenario of continued macro uncertainty, higher inflation is unlikely. Investors worried about inflation should look beyond Fed watching, and focus on macro uncertainty and the basics of government finances. In this context, they should monitor the role of US government debt as the dominant reserve asset.

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.

Despite the recent increase in interest rates by the U.S. Federal Reserve, our prior for long run inflation remains a benign rate of about 2%. Our prior is consistent with bond market pricing and our baseline scenario of continued macro uncertainty. In our view, investors worried about inflation should look beyond Fed watching, and focus on macro uncertainty and the basics of government finances. In this context, they should monitor the role of US government debt as the dominant reserve asset.

Exhibit 1 - Breakeven inflation rates remain stable



SOURCE: FEDERAL RESERVE BANK OF ST. LOUIS

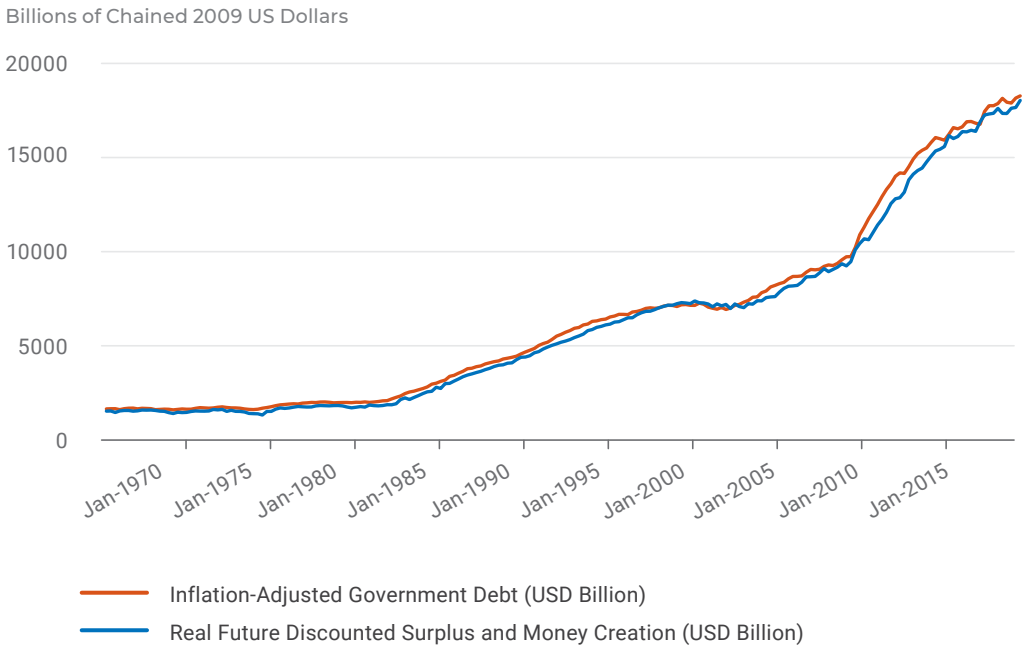
The recent wave of interest rate hikes by the U.S. Federal Reserve and rise in the 10-year nominal government bond yield have revived investors' concern about resurgent inflation. However Exhibit 1 shows that, since January 2018, both the nominal and real yield on 10-year US Treasury bonds have increased by about 40bps.[1] This leaves the breakeven inflation rate (the difference between the nominal and real yield), a gauge of markets' long-term inflation

[1] The Exhibit shows the evolution since 2nd January 2018, of the yield on US 10-year constant maturity government bonds, 10-year constant maturity treasury inflation protected securities, and the implied breakeven inflation rate. All yields and rates are daily, annualized rates.

expectations, broadly unchanged at around 2%. So far, it would appear that markets have been shrugging off risks of significantly higher inflation.

Should investors safely rule out all risks of higher inflation? To understand the source of inflation risk, we recommend considering the interaction between

Exhibit 2 - The government budget constraint



SOURCE: NAVEGA STRATEGIES LLC RESEARCH, FEDERAL RESERVE BANK OF ST. LOUIS

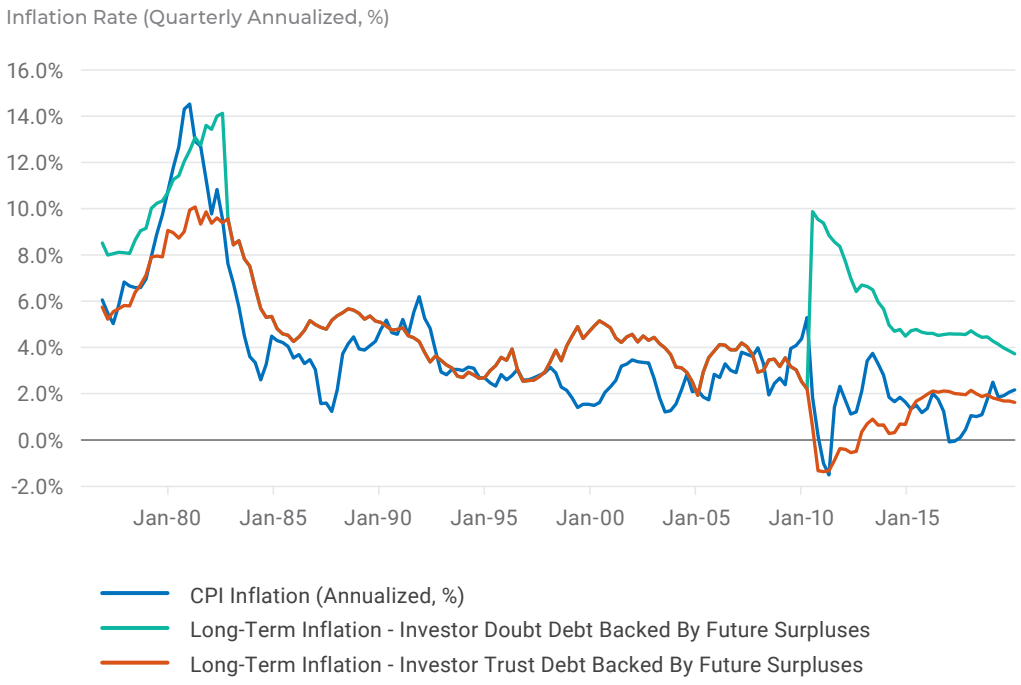
macro uncertainty and monetary and fiscal policies. These interactions can be summarized by the government budget constraint, shown in Exhibit 2. The Exhibit portrays the first principle of budget accounting: government debt, adjusted for inflation, reflects markets' expectations of future, real discounted surpluses.[2] Surpluses are measured as receipts (mostly from taxes) less spending, and changes in central bank money creation. Thus, long-term inflation expectations depend on three factors: the long-term real discount rate; markets' views about long-term changes in nominal debt; and, sustainability of government spending. Of these, the long-term real discount rate is driven by long-term trend growth and uncertainty about the trend.

[2] The Exhibit shows the quarterly evolution of US federal public debt, adjusted for inflation, and our estimate of future, real discounted government surpluses since September 1966. Real discount rates are 10-year real government bond yields estimated by our models. Surpluses are measured as federal total receipts less federal total expenditures, and changes in money (M2).

To pin down long run inflation, investors need a scenario for each of the three factors. Exhibit 3 contrasts the evolution of CPI inflation from 1976 with two estimates of long run inflation rates that differ in their assumptions over two key periods: the Great Inflation until 1982, and post-global financial crisis (from 2009 to present).[3] Both estimated inflation rate series assume investors forecast debt changes as their average over the past 10 years, and economic growth and growth uncertainty according to our model baseline forecast. However the first estimate assumes that investors trust government debt is backed by future surpluses. This means that, given a level of debt, inflation is primarily driven by real discount rates: inflation increases with real discount rates. By contrast, the second estimate assumes investors doubt debt can be backed by surpluses alone. Changes in nominal debt are then fully compensated by changes in inflation.

[3] The Exhibit shows the evolution of US CPI inflation from June 1976 together with two estimates of trend inflation rates implied by the US government budget constraint. The first estimate (red line) assumes that investors trust government debt is backed by future surpluses with credible fiscal and monetary policies. The second estimate (yellow line) assumes investors doubt debt has any credible backing. Both series further assume investors forecast debt changes as their average over the past 10 years, and economic growth and growth uncertainty according to our model baseline forecast. All rates are quarterly, annualized inflation rates.

Exhibit 3 - The government budget constraint implies US inflation is likely to remain benign



SOURCE: NAVEGA STRATEGIES LLC RESEARCH, FEDERAL RESERVE BANK OF ST. LOUIS

For the most part, realized inflation rates seem consistent with our first estimate, even more recently, when they have remained benign despite unprecedented increases in debt and money. One possible explanation is that investors perceive US debt as the unique safe haven asset acting as insurance in the wake of an acute surge in macro uncertainty following 2008. Under this interpretation, US government bonds are viewed as likely to retain their position as a dominant reserve asset. In addition, our baseline scenario of continuation of slow growth also implies low real discount rates. These assumptions translate into a benign inflation rate of about 2%, consistent with our baseline forecast.

However investors are right to remain worried about risks of higher inflation, as markets perceptions of debt sustainability can shift swiftly and radically. With debt growing at its current average rate of 4.6% per year, such shifts could well be triggered by persistent declines in real trend growth. Exhibit 3 suggests that the 1970s high inflation experience was consistent with our second estimate. Indeed, persistent increases in money elusively aimed at reducing unemployment and fostering growth only fueled government debt, without any credible backing. Likewise, in present times, the roots of possible higher inflation lie in the credibility of US fiscal and monetary policy. If this credibility is lost, our baseline scenario of continued macro uncertainty and slow growth implies that inflation can increase to about 4%. Thus, investors would be well advised to monitor debt growth in the context of long run changes in trend growth.

Going forward, we will be updating our estimate of the government budget constraint. And we will be including the impact of the government budget constraint as a prior in our inflation forecasting.

Navega Strategies LLC.
www.navegastrategies.com

NewYork, USA
info@navegastrategies.com

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