# More Low Inflation or Stagflation? Government Finances Provide the Clues to Future Inflation

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### Why This Matters?

This paper uses the government budget constraint to address the potential for future inflation. The paper shows that under our baseline of low real growth, current inflation levels are also consistent with current levels of government debt and monetary balances. However, application of the government budget constraint also suggests that increased deficits combined with decreased money growth could lead to stagflation.

### Who Should Read This Paper?

This paper should be read by investment strategists and asset allocators.

# More Low Inflation or Stagflation? Government Finances Provide the Clues to Future Inflation

**Inflation has remained persistently low since** the 2008 global financial and economic crisis. Bond markets and our model forecasts suggest low inflation is likely to persist. However, in the current context of low growth and unemployment rates[1], investors are increasingly worried about upside risks to inflation. Indeed, the message from the central banks gathering at Jackson Hole in August is that monetary policies have reached their limits in reviving growth and inflation.[2] To gain clues to what drives the risk of current and future inflation, investors should go back to basics and instead, focus on government finances.

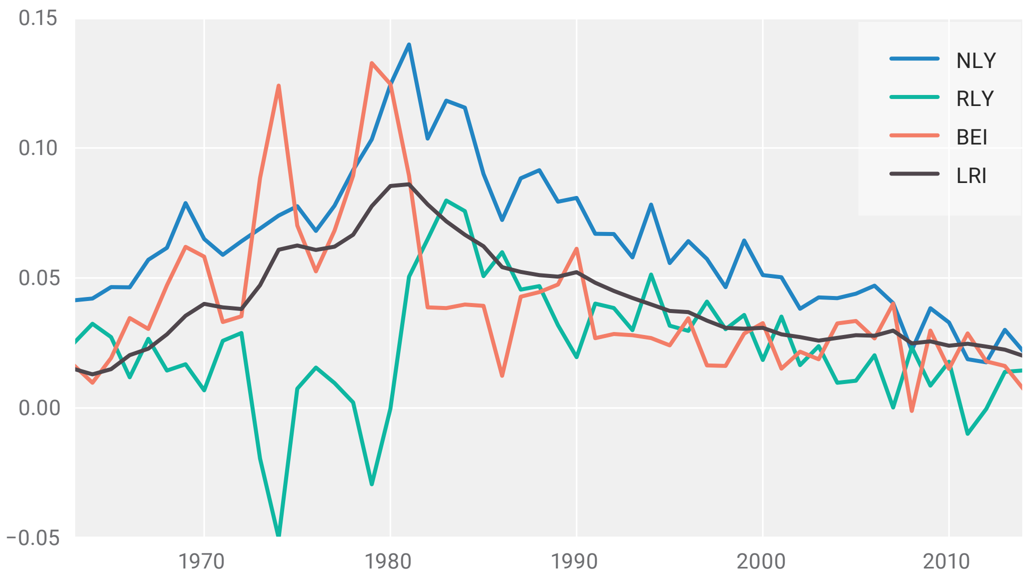
In this context, increased fiscal uncertainty suggests that stagflation (a combination of low growth and high inflation) is no red herring.

[1] See our previous paper "Long-Term Prospects for U.S. Economic Growth Remain Sluggish, Despite Recent Improvements in Jobs and Growth", Navega Strategies LLC Research, October 2017.

[2] For example, the Federal Reserve appears to be preparing to unwind what some observers have labelled an unconventional monetary policy, featuring large balance sheets and low policy rates.

**Exhibit 1 shows the recent evolution** of 10-year nominal and inflation-linked bond yields and their difference. The difference is the break-even inflation rate and can be viewed as a proxy for the market's anticipation of future inflation. Markets continue to price-in expectations of low inflation. In turn, as shown in Exhibit 2, our model forecasts, driven by recent observations of low inflation rates and bond markets' anticipations, suggest inflation is likely to remain at about 2% over the next 3 years, a rate well below its long-term historical average of 4.0%, despite recent, continued declines in unemployment. This persistently low rate poses two key questions for investors: First, how to reconcile low inflation and monetary policies that featured large scale expansions of money? Second, whether and how inflation will rise?

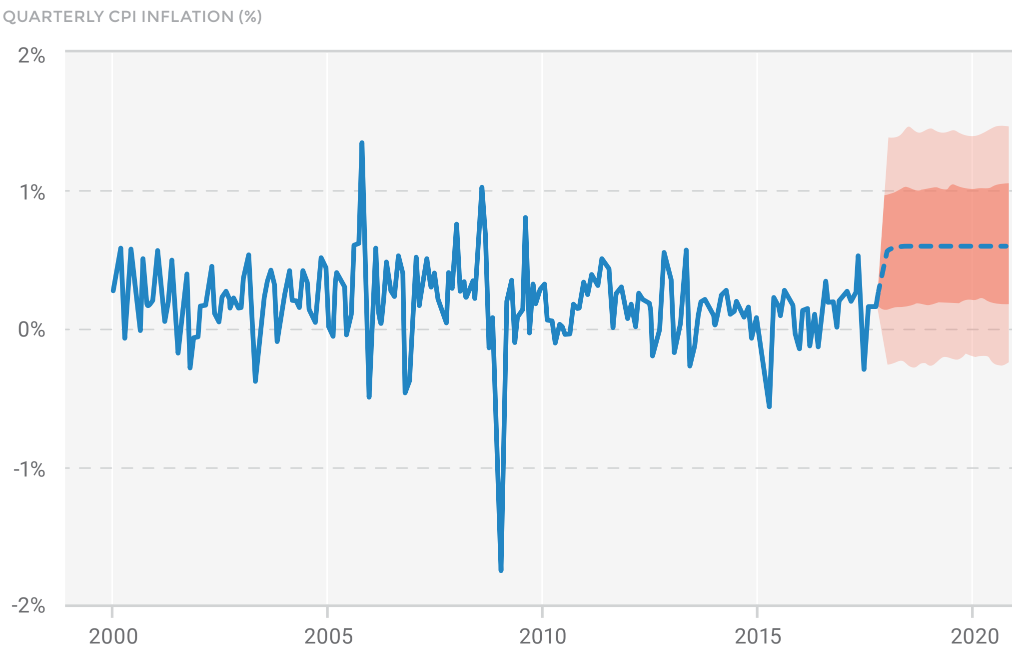
**Exhibit 1 -** Markets Anticipate Low Inflation to Persist




*The Exhibit shows the historical evolution of the U.S. 10-year constant maturity government bond yield (NLY), 10-year constant maturity inflation-linked government bond yield (RLY), break-even inflation rate implied by 10-year nominal and inflation-linked government bond yields (BEI), and our model long-run consumer price index (CPI) inflation forecast (LRI) since 1962.*

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

**Exhibit 2 -** Our Model Forecasts Call for the Continuation of Low, Benign Inflation



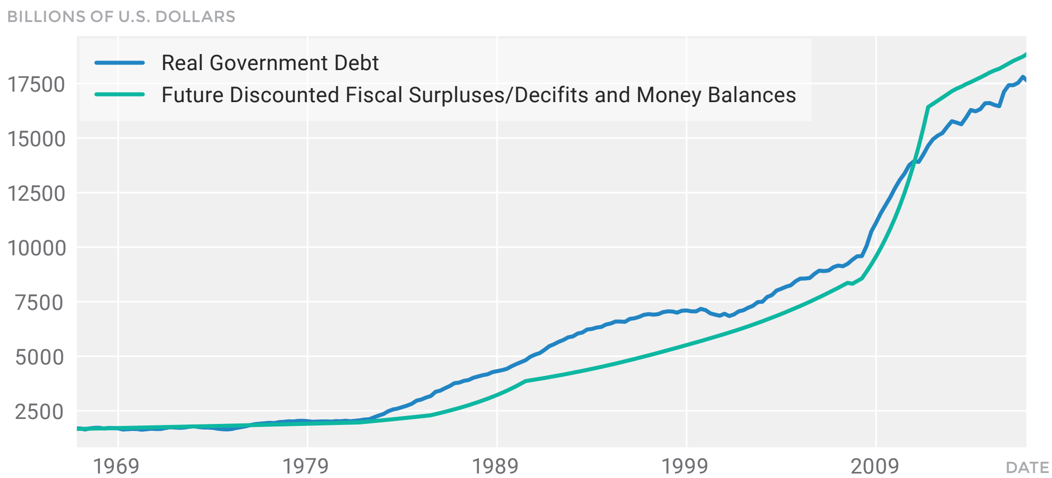

*The Exhibit shows the evolution of the U.S. Consumer Price Index (CPI) inflation from 2000 to June 2017, our model nowcast at September end, and our model forecasts for the next five years. All inflation rates are quarterly percentage rates.*

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

**To address these questions**, investors should go back to first principles of government budget accounting, and balance the fiscal and monetary sides of the budget. At all times, the value of federal debt, adjusted for inflation, reflects discounted future government surpluses and money created by central banks. Exhibit 3 portrays this fundamental relationship over the last 50 years. Exhibit 4 shows the historical evolution of debt and money relative to GDP. The exhibits suggest that despite large increases in debt and monetary expansion, inflation has remained low since 2008 primarily because real interest rates have been ultra-low at near-zero or even negative levels. Low real rates are consistent with the continuation of slow economic growth in the U.S. and abroad.[3]

[3] Low real growth outside the U.S. has the potential to fuel insurance demand for U.S. dollar-denominated Treasurys, as they are perceived as the safe asset.

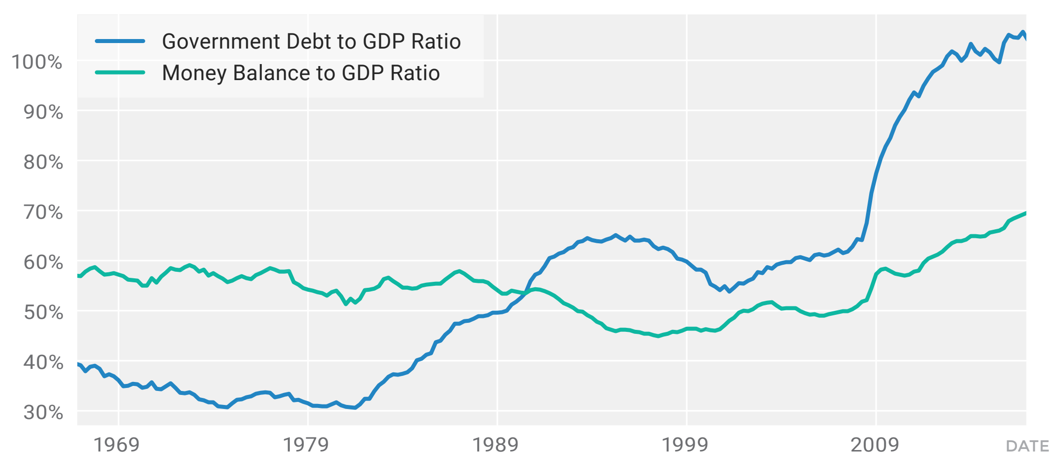
**Exhibit 3 -** Back to Basics: Real Debt Reflects Future Real Discount Rates, Fiscal Surpluses and Money Growth




*The Exhibit shows the historical evolution (since 1967) of U.S. federal public debt, adjusted for inflation, and a measure of discounted future government surpluses and money growth based on our calculations. The real discount factor is derived from 10-year constant maturity inflation-linked government bond yields; quarterly changes in M2 are used as a proxy for money growth.*

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

**Exhibit 4 -** Government Debt and Central Bank Money Balances Are High Relative to History




*The Exhibit shows the historical evolution of U.S. federal public debt and money balances (M2) relative to U.S. GDP since 1967. Since the 2008 financial crisis, both government debt and money created by central banks have risen to unprecedented levels by historical standards.*

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

**Going forward**, Exhibits 3 and 4 also suggest that future inflation will be driven by the paths of future fiscal and monetary policies. For example, suppose that US real growth continues to be low and that fiscal and monetary policies remain broadly unchanged. According to Exhibits 3 and 4, this scenario suggests that the government budget is broadly balanced. Hence, the U.S. economy could continue to be in our baseline “safety trap” scenario, with low real growth, low inflation and low real interest rates.

**As an alternative scenario suppose** that trend real growth continues to be low, but that the government deficit increases significantly (e.g. through large tax cuts or increased spending) and that monetary balances tighten. With government debt near historical highs, the government budget would be balanced only through reducing the real value of debt. Consequently, there could be upward pressure on inflation.[4] In this scenario, whether there is inflation depends on policy makers’ credibility in restoring government balances in the future. Thus, the potential for stagflation is real.

**Having explored likely scenarios** for future growth and inflation, the next key question for investors is to formally evaluate their implications for returns and allocation strategies in a consistent fashion. This is the subject of the next three papers in the series.

[4] According to our calculations, at current growth rates and interest rates, a 30% increase in debt in the next 10 years would be consistent with inflation rising from our baseline forecast of 2% to 5% per year over the next 10 years.

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