WHO'S AFRAID OF HIGHER YIELDS?

ZAIS INSIGHTS

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Who's afraid of higher yields?

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Who's afraid of higher yields?

- Inflation fears and rising bond yields temper the recovery euphoria
- Most likely, yields will normalize as the economy recovers
- The risk is overheating, which creates a dilemma for the Fed
- Private and public debt is too high to swallow much higher yields

Falling Corona infections, rising vaccination rates and the government's new $1.9 trillion stimulus package have boosted financial market optimism. The only spoiler is the concern that inflation may rise, as well, which has lifted long-term bond yields.

In our opinion, economic recovery and a return to "normal" will inevitably result in higher long-term bond yields. How much further yields will rise depends, in our view, largely on the speed and extent to which private households reduce savings.

A rapid and large decline in savings could lead to overheating pressures and push inflation expectations higher. That would create a dilemma for the Fed. Whether the Fed tolerates higher inflation or tightens policy, long-term bond yields may rise in either case, which would be a problem given the high levels of public and private debt.

However, households may be cautious and reduce savings only gradually, preventing the economy from overheating and keeping inflation expectations anchored. In that case, we expect long-term yields will rise as well, but not so far to prick the debt bubble.

A fundamental yield decomposition

To analyze the possible scenarios, we have developed a framework that deconstructs the yield of 10-year Treasury notes into fundamental economic factors. In our view, three fundamental forces shape long-term bond yields:

1) Growth and inflation
   - Long-term average growth
   - Long term inflation expectations
2) Supply and demand of funds
   - Fiscal balance
   - Net household savings
   - Net corporate savings
   - Foreign bid
3) Monetary policy
   - Policy interest rates
   - Bond purchases (QE)

Long-term average growth and inflation expectations form the basis for long-term bond yields. Deviations from the basis are a function of the supply and demand of funds and monetary policy.

For example, yields are likely to rise if a government deficit is not offset by net savings from households and corporates. Since the 1990s, foreign demand for US Treasuries (foreign bid) has been a strong factor pushing yields lower.

Monetary policy impacts long-term bond yields typically through short-term interest rates. Since the financial crisis, the Fed has also bought bonds (QE), with the aim to keep long-term interest rates down.

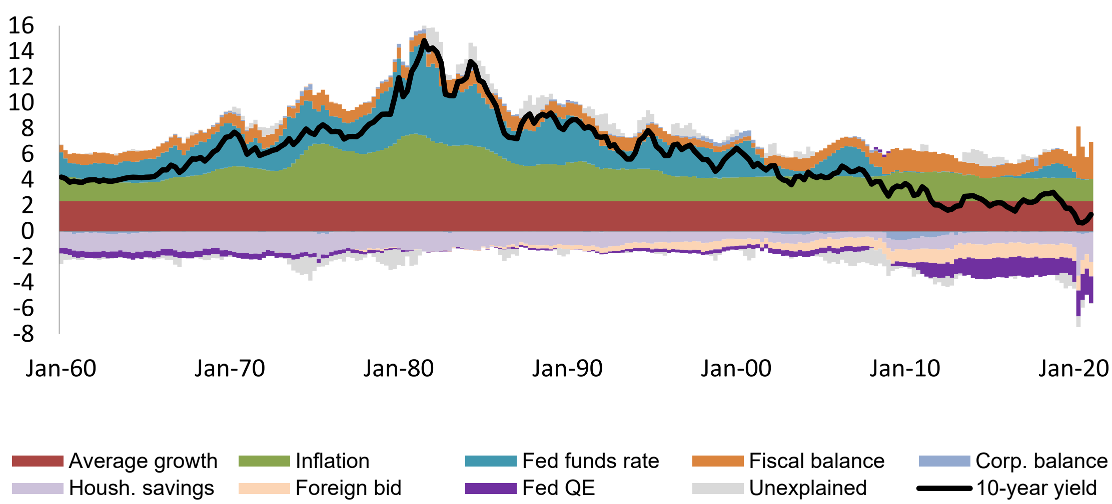
Monetary policy also indirectly influences long-term bond yields through inflation expectations. Thus, policy credibility is important for anchoring inflation expectations.

Yields depressed since financial crisis

Chart 1 illustrates the impact of the fundamental factors on 10-year Treasury yields since 1960, using a quarterly regression model.

The chart shows a large downdraft of fundamental forces since the financial crisis which has pushed 10-year Treasury yields

Chart 1: 10-year Treasury yield and estimated fundamental components



Source: Board of Governors of the Federal Reserve System and ZAIS calculations [1] well below the level consistent with average growth and inflation.

The main forces behind this downdraft were the foreign bid and Fed QE. The dispersion of forces has increased further since the start of the Corona pandemic as the fiscal deficit surged, yet private households also saved more and the Fed cut interest rates to zero and bought more Treasury notes.

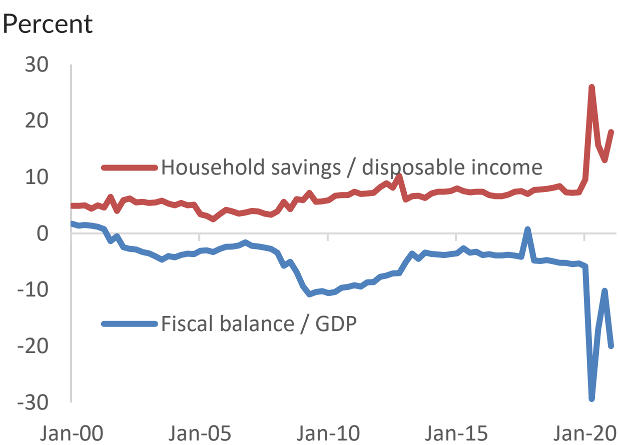
Based on our calculations, the current level of 10-year Treasury yields of around 1.5% is roughly in line with fundamentals. The question is how the fundamentals will change going forward and whether actual yields will move in line with fundamentals or overshoot them.

Return to "normal"

What is least uncertain is the direction of fiscal policy for the rest of this year. With the $1.9 trillion stimulus package now through Congress, we expect a fiscal deficit of around 15% of GDP for 2021, which on its own has the potential to drive long-term yields much higher.

So far, private households have saved a large share of the stimulus payments (see Chart 2), which has muted the impact of the fiscal deficit on Treasury yields.

Chart 2: fiscal deficit & household savings



Source: U.S. Bureau of Economic Analysis [2]

As suggested by the chart, we estimate, households saved over the last 12 months an additional 10% of their disposable income.

Whether households will spend those additional savings as well as the new stimulus money quickly is not clear, however.

- First, opportunities to spend the money may not open up fast and many people may be reluctant to return to old spending habits soon.
- Second, many households may prefer saving the extra money for rainy days or pension funds or making debt repayments rather than spending it on goods and services consumption.

In our base scenario, savings will gradually return to the levels seen before the pandemic. That should provide a boost to the economy but not result in overheating, given still high levels of unemployment. We think inflation is set to rise temporarily in this scenario due to unfavorable base effects, higher energy prices and price increases in areas that recover faster. But inflation expectations should remain anchored and the Fed should be comfortable maintaining its current policy stance through the end of the year.

Thus, we expect 10-year Treasury yields in the base scenario to rise further this year, probably crossing 2% with the possibility of a temporary overshoot. Still, 10-year yields of 2% to 3% would simply mark a return to the normal range of the last 10 years, as shown above in Chart 1, which we would view as a positive outcome.

Risks on either side

It is difficult to imagine long-term bond yields declining in a recovery period, but

2010 and 2011 are reminders that this is possible.[3]

The trigger could be an unexpected shock or simply slower progress in the fight against the Corona pandemic and, consequently, a weaker recovery.

Financial markets, however, worry more that the recovery will result in overheating pressures. Some even think this could be the turning point toward permanently higher inflation.[4]

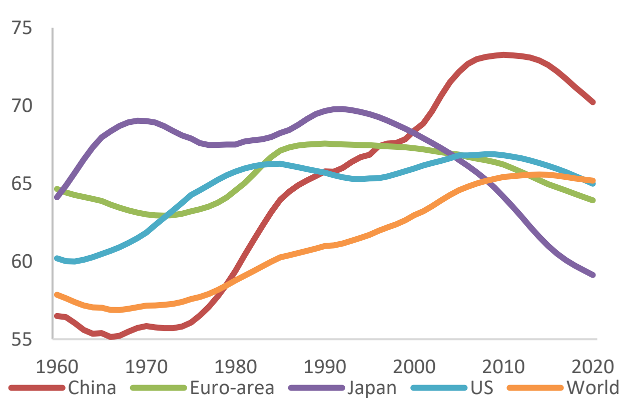
Overheating is not our base scenario, but the risk is real because of the sheer size of piled-up private savings plus additional stimulus payments. A regime shift toward permanently higher inflation, however, is a less imminent risk, in our view.

A structural shift to higher inflation?

Overheating pressures can be a trigger, but a shift toward lasting higher inflation would have to be the result of structural changes in the supply and demand of labor, productivity and the demand for goods and services. A potential cause could be aging populations and a weakening of globalization.

Chart 3: Working age population

15-64 years old % of population



Source: World Bank[5]

We do not dismiss the possibility of such structural shifts, but we doubt they will change inflation trends radically over the next couple of years. The aging of populations is a gradual process that has already been in place for a while (see Chart 3). So far, that trend has not led to acute labor shortages and inflation pressures.[6]

There is also no evidence yet that aging is leading to reduced savings and more consumption. In the US, the personal savings rate increased over the last 15 years prior to the pandemic, while fewer people as a share of the population actually worked,[7] suggesting that aging may lead to more precautionary savings.

The globalization boom is probably over, but we think that globalization will remain a powerful force and is unlikely to go into reverse just because the Corona pandemic exposed the vulnerability of some supply chains. In our view, companies will continue to look for global opportunities to grow their businesses and improve efficiency and profitability. This, we think, will apply in particular to the new high-tech firms.

On the other hand, we believe the Corona pandemic is likely to lead to some structural changes that could dampen the demand for labor.

- Working from home is likely to be the new normal for more people even once the pandemic is overcome. That would reduce the demand for transportation, food services and retail in urban areas.
- E-commerce and the delivery-economy are set to replace more traditional jobs in retail and the service industry.
- Finally, the pandemic has accelerated the use of artificial intelligence and automation, which could further rationalize jobs in manufacturing as well as customer and other services jobs.

Overheating could lift yields above 4%

While the risk of an enduring shift to higher inflation seems more distant to us, the risk of overheating this year and next is real and could lead to rising inflation expectations.

The need for fiscal support will fade next year if Corona is defeated, but we doubt there is strong political will to consolidate the budget quickly, while demands for more spending on infrastructure and climate-change policies will rise. Thus, the fiscal deficit is likely to decline but will probably remain large by past standards.

Our simulations suggest the impact of these risks could boost 10-year Treasury yields well above 3%. A market over-reaction, which is quite possible in an upward dynamic, could lift 10-year yields even well over 4%. These risks create a dilemma for the Fed.

A dilemma for the Fed

The Fed has stated it is willing to tolerate some inflation overshoot.[8] However, it is not clear how far its tolerance will extend. It is easy to be relaxed when inflation seems to be a distant threat. When the heat is on, however, the situation becomes dynamic, making it difficult to distinguish temporary inflation spikes from longer lasting inflation increases.

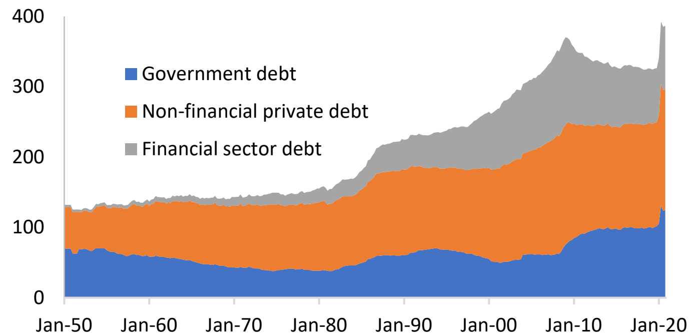
In our view, doing nothing or even buying more bonds to keep yields low would add fuel to the fire and undermine the Fed's credibility, resulting in rising inflation expectations and probably even higher bond yields.

At the same time, tightening policy would probably arrest inflation expectations but at the price of withdrawing critical support from the Treasury market, resulting in higher long-term yields as well.

The risk of overheating and higher bond yields should be concerning for the Fed because of the high level of leverage in the economy: When Paul Volker started his fight against inflation 40 years ago, total domestic debt in the US was around 150% of GDP. Today it is close to 400% of GDP (see Chart 4).

Chart 4: US domestic debt

% of GDP

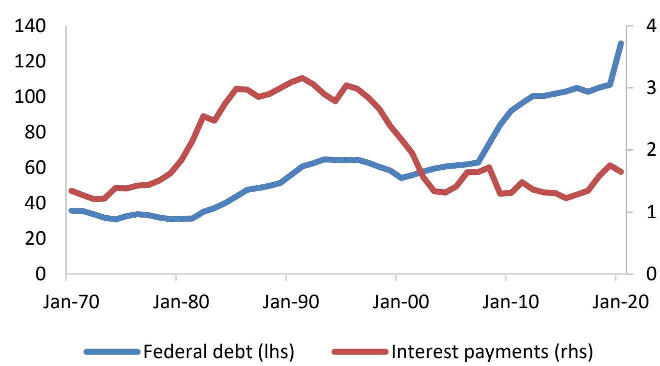


Source: Board of Governors of the Federal Reserve System [9]

The mix of rising interest rates and high levels of the debt is the perfect recipe for a boom-bust cycle. An additional problem is government debt sustainability.

Chart 5: Federal debt & interest payments

% of GDP



Source: U.S. Office of Management and Budget and Federal Reserve Bank of St. Louis [10]

So far, the government has had to pay relatively little interest on its debt (see Chart 5).

But rising interest rates plus high and rising debt would change that. If the primary deficit (ex interest payments) remains high and nominal GDP growth is not enough to offset interest payments, then the debt burden will spiral out of control. In the 1980s and 1990s, interest payments on government debt were also higher, but back then the level of debt was much lower (see Chart 5).

Better not to wait too long

In our view, overheating is not the most likely outcome but it is a serious risk. Some inflation may be welcome after 10 years of mostly below target inflation. However, the situation is potentially more explosive, given the amount of pent-up savings and additional fiscal stimulus. Thus, tolerating more inflation may be more dangerous now than it would have been in recent years.

More information

As always, we are available to discuss our views with you. Please contact your Client Relations representative at +1 732 978 9722 or zais.clientrelations@zaisgroup.com

[1] The 10-year US Treasury yield is from Board of Governors of the Federal Reserve System (US), 10-Year Treasury Constant Maturity Rate [DGS10], retrieved from FRED, Federal Reserve Bank of St. Louis;

https://fred.stlouisfed.org/series/DGS10;

March 14, 2021.

The decomposition of the 10-year Treasury yield into fundamental factors is based on ZAIS estimates, using a quarterly regression model from 1960 to 2020.

[2] U.S. Bureau of Economic Analysis, Net lending or net borrowing (-), NIPAs: Government: Federal [AD02RC1Q027SBEA], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/AD02RC1Q027SBEA; March 14, 2021.

U.S. Bureau of Economic Analysis, Gross Domestic Product [GDP], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/GDP; March 12, 2021.

U.S. Bureau of Economic Analysis, Personal saving as a percentage of disposable personal income [A072RC1Q156SBEA], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/A072RC1Q156SBEA; March 14, 2021.

[3] The 10-year US Treasury yield is from Board of Governors of the Federal Reserve System (US), 10-Year Treasury Constant Maturity Rate [DGS10], retrieved from FRED, Federal Reserve Bank of St. Louis;

https://fred.stlouisfed.org/series/DGS10;

March 14, 2021.

[4] *The Great Demographic Reversal* by Charles Goodhart and Manoj Pradhan, ISBN 978-3-030-42657-6 https://blogs.lse.ac.uk/businessreview/2020/09/18/the-great-demographic-reversal-and-what-it-means-for-the-economy/

[5] Population ages 15-64 (% of total population); World Bank; Data from database: Health Nutrition and Population Statistics; https://databank.worldbank.org/source/health-nutrition-and-population-statistics#

[6] US PCE inflation ex food and energy fluctuated between 1% and 2% in the expansion before the Corona Pandemic (2010-19), averaging 1.6% versus 2.0% in the prior expansion (2002-07). U.S. Bureau of Economic Analysis, Personal Consumption Expenditures Excluding Food and Energy (Chain-Type Price Index) [PCEPILFE], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/PCEPILFE; March 14, 2021.

Global inflation averaged 3.5% between 2010 and 2019 versus 4.2% in the prior 10 years. https://www.imf.org/en/Publications/WEO/weo-database/2020/October/weo-report?a=1&c=001,&s=PCPIPCH,PCPIEPCH,&sy=2000&ey=2020&ssm=0&scsm=1&scc=0&ssd=1&ssc=0&sic=0&sort=country&ds=.&br=1

[7] The personal savings rate rose from 3.1% in 2005 to 7.6% in 2019, while the employment-population ratio shifted lower from 62.7% in 2005 to 60.8% in 2019.

U.S. Bureau of Economic Analysis, Personal saving as a percentage of disposable personal income [A072RC1Q156SBEA], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/A072RC1Q156SBEA; March 14, 2021.

U.S. Bureau of Labor Statistics, Employment-Population Ratio [EMRATIO], retrieved from FRED, Federal Reserve Bank of St. Louis;

https://fred.stlouisfed.org/series/EMRATIO; March 11, 2021.

[8] The FOMC's Statement on Longer-Run Goals and Monetary Policy Strategy, revised in August 2020 and reaffirmed in January, is available on the Board's website at https://www.federalreserve.gov/monetarypolicy/files/FOMC_LongerRunGoals.pdf

[9] Board of Governors of the Federal Reserve System (US), Domestic Nonfinancial Sectors; Debt Securities and Loans; Liability, Level [TCMDODNS], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/TCMDODNS; March 11, 2021.

Board of Governors of the Federal Reserve System (US), Federal Government; Debt Securities and Loans; Liability, Level [FGTCMDODNS], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/FGTCMDODNS;

March 11, 2021.

Board of Governors of the Federal Reserve System (US), State and Local Governments; Debt Securities and Loans; Liability, Level [SLGSDODNS], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/SLGSDODNS;

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Board of Governors of the Federal Reserve System (US), Domestic Financial Sectors; Debt Securities and Loans; Liability, Level [TCMDODFS], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/TCMDODFS;

March 11, 2021.

U.S. Bureau of Economic Analysis, Gross Domestic Product [GDP], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/GDP; March 12, 2021.

[10] U.S. Office of Management and Budget and Federal Reserve Bank of St. Louis, Federal Debt: Total Public Debt as Percent of Gross Domestic Product [GFDEGDQ188S], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/GFDEGDQ188S;

March 7, 2021.

U.S. Office of Management and Budget and Federal Reserve Bank of St. Louis, Federal Outlays: Interest as Percent of Gross Domestic Product [FYOIGDA188S], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/FYOIGDA188S;

March 6, 2021.

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