



ZAIS Insights

February 2019

Fears of a near term recession seem overblown

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Fears of a near term recession seem overblown

Economists like to refer to the yield curve when talking about recession risks. This is because the yield curve has historically been a good predictor of recession risk.

In fact, each of the last seven recessions was foreshadowed by an inverted yield curve,¹ according to the Cleveland Fed.

The current flat yield curve may give rise to concern of a looming recession.

And, certainly, based on its current shape, the Cleveland Fed puts the probability of a recession in a year's time at 26.5%.²

However, looking deeper at the forces shaping the yield curve, we favor a much more benign economic environment than the Cleveland Fed.

In our view, deleveraging in the private sector and quantitative easing (QE) by the Fed have structurally compressed the yield curve (see Chart 1).

Furthermore, a key monetary policy indicator, such as, bank lending standards suggest an easing in the past three months.³

Cumulatively these statements present a lower probability of recession. Hence, we have lowered our one and two year recession outlook to, at most, 10% and below 30% respectively.

Symptom or causality

A flat or inverted yield curve is primarily seen as a leading indicator of recession with negative growth expectations. However, it is not necessarily seen as the cause.

The main causality may, in fact, be a monetary policy that is generally too restrictive for growth with the resulting tightening of banking system loan standards.

A better question

However, we examine this further and the bigger picture question is whether:

- The flattening of the yield curve is a sign that monetary policy has become too restrictive; or
- Other forces have held long-term interest yields down.

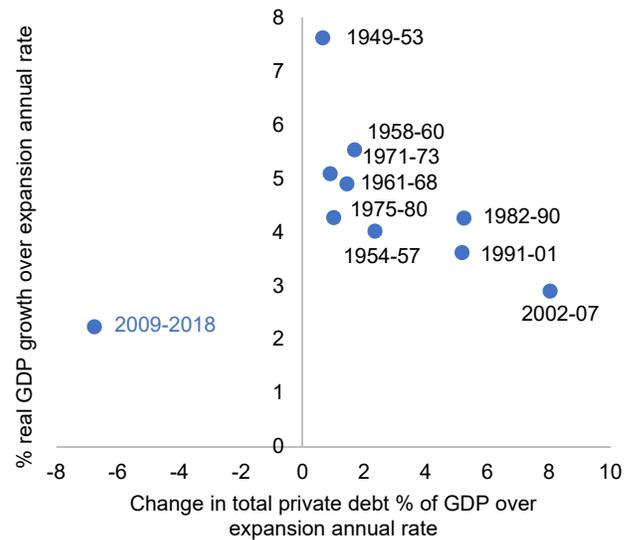
Slowest post-war expansion

In our view, the structural character of this expansion is unique. This is the first post war cycle in which the private sector has reduced and not increased leverage (see Chart 1).

The government has accumulated a lot more debt, but that was not sufficient to boost growth.

Chart 1: U.S. Business Cycles in Perspective

% real GDP growth over expansion annual rate



Source: ZAIS calculations based on GDP data sourced from the Federal Reserve Bank of St. Louis.⁴

The Fed is at both ends of the curve

The Fed introduced quantitative easing (QE) to lower long-term interest rates and stimulate growth. In the meantime, the Fed started to raise interest rates in late 2015.⁵

According to Fed research, QE reduced 10-year Treasury yields over time by about 100bps.⁶

In our view, the combined effect of QE and private sector deleveraging explain at least 100bps of the yield curve flattening.

The banking channel of the yield curve

The banking system is a key operating channel for monetary policy. A steep yield curve is good for banks' interest margins and profits. A flat or inverted yield curve is not and leads banks to tighten lending standards. There may be a lag but,

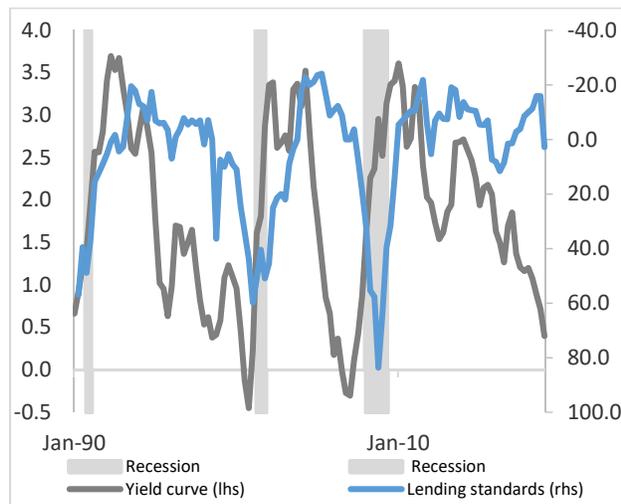
generally, the yield curve and bank lending standards typically move in the same direction.

Bank lending is not tight

Of interest, even though the yield curve has flattened, monetary policy does not appear to us to be too restrictive. Between the first quarter of 2016 and the fourth quarter of 2018, bank lending standards moved from a tightening bias to an easing bias (see Chart 2).

Chart 2: U.S. yield curve and lending standards

% (LHS) and % balance of responses (RHS, inverted)



Source: Federal Reserve Bank of St. Louis⁷ and calculations by ZAIS.

Further, according to our calculations, bank lending standards suggest only a 9% probability of recession over the next year and 27% in two years.

Moreover, in the latest National Federation of Independent Business (NFIB) survey for January, small firms report slightly easier loan availability conditions than three months earlier (see Chart 3).

Chart 3: U.S. loan availability to small firms

% balance of responses (better versus worse)



Source: NFIB Small Business Economic Trends, January 2019 (page 12)⁸

Summary

In summary, we believe fears of a recession are overblown.

The combination of a slow post-war expansion; the Fed QE; the private sector deleveraging; and a banking channel that is not overly stressed – illustrate that this is, indeed, a unique business cycle expansion.

Hence, we have lowered our one and two year recession outlook to, at most, 10% and below 30% respectively.

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 Federal Reserve Bank of Cleveland; Yield Curve and Predicted GDP Growth, January 2019; <https://www.clevelandfed.org/our->

[research/indicators-and-data/yield-curve-and-gdp-growth.aspx](https://www.clevelandfed.org/our-research/indicators-and-data/yield-curve-and-gdp-growth.aspx).

² Federal Reserve Bank of Cleveland; Yield Curve and

Predicted GDP Growth, January 2019;
<https://www.clevelandfed.org/our-research/indicators-and-data/yield-curve-and-gdp-growth.aspx>.

³ Federal Reserve Bank of St. Louis
(<https://fred.stlouisfed.org/categories>), below:

10-year Treasury yield (GS10): Board of Governors of the Federal Reserve System (US), 10-Year Treasury Constant Maturity Rate [GS10], retrieved from FRED, Federal Reserve Bank of St. Louis;
<https://fred.stlouisfed.org/series/GS10>, February 19, 2019.

3-month Treasury Bill rate: Board of Governors of the Federal Reserve System (US), 3-Month Treasury Bill: Secondary Market Rate [TB3MS], retrieved from FRED, Federal Reserve Bank of St. Louis;
<https://fred.stlouisfed.org/series/TB3MS>, February 19, 2019.

Board of Governors of the Federal Reserve System (US), Net Percentage of Domestic Banks Tightening Standards for Commercial and Industrial Loans to Large and Middle-Market Firms [DRTSCILM], retrieved from FRED, Federal Reserve Bank of St. Louis;
<https://fred.stlouisfed.org/series/DRTSCILM>, February 19, 2019.

⁴ Federal Reserve Bank of St. Louis
(<https://fred.stlouisfed.org/categories>), below:

Real GDP (GDPC1): U.S. Bureau of Economic Analysis, Real Gross Domestic Product [GDPC1], retrieved from FRED, Federal Reserve Bank of St. Louis;
<https://fred.stlouisfed.org/series/GDPC1>, February 19, 2019.

CPI (CPIAUCSL): U.S. Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers: All Items [CPIAUCSL], retrieved from FRED, Federal Reserve Bank of St. Louis;
<https://fred.stlouisfed.org/series/CPIAUCSL>, February 19, 2019

Non-financial corporate debt (TCMILBSNNCB): Board of Governors of the Federal Reserve System (US), Nonfinancial Corporate Business; Credit Market Instruments; Liability, Level [TCMILBSNNCB], retrieved from FRED, Federal Reserve Bank of St. Louis;
<https://fred.stlouisfed.org/series/TCMILBSNNCB>, February 19, 2019.

Household debt (TCMILBSHNO): Board of Governors of the Federal Reserve System (US), Households and Nonprofit Organizations; Credit Market Instruments; Liability, Level [TCMILBSHNO], retrieved from FRED, Federal Reserve Bank of St. Louis;

<https://fred.stlouisfed.org/series/TCMILBSHNO>, February 19, 2019.

Financial business debt (DODFS): Board of Governors of the Federal Reserve System (US), Financial Business; Credit Market Instruments; Liability, Level [DODFS], retrieved from FRED, Federal Reserve Bank of St. Louis;
<https://fred.stlouisfed.org/series/DODFS>, February 19, 2019.

Nominal GDP (GDP): U.S. Bureau of Economic Analysis, Gross Domestic Product [GDPA], retrieved from FRED, Federal Reserve Bank of St. Louis;
<https://fred.stlouisfed.org/series/GDPA>, February 19, 2019.

⁵ Federal Reserve Bank of New York; Quarterly Trends for Consolidated U.S. Banking Organizations; Third Quarter 2018;
https://www.newyorkfed.org/medialibrary/media/research/banking_research/quarterlytrends2018q3.pdf?la=en; Page 13.

⁶ Board of Governors of the Federal Reserve System, The Effect of the Federal Reserve's Securities Holdings on Longer-term Interest Rates;
<https://www.federalreserve.gov/econres/notes/feds-notes/effect-of-the-federal-reserves-securities-holdings-on-longer-term-interest-rates-20170420.htm>; April 20, 2017.

⁷ Federal Reserve Bank of St. Louis
(<https://fred.stlouisfed.org/categories>), below:

10-year Treasury yield (GS10): Board of Governors of the Federal Reserve System (US), 10-Year Treasury Constant Maturity Rate [GS10], retrieved from FRED, Federal Reserve Bank of St. Louis;
<https://fred.stlouisfed.org/series/GS10>, February 19, 2019.

3-month Treasury Bill rate: Board of Governors of the Federal Reserve System (US), 3-Month Treasury Bill: Secondary Market Rate [TB3MS], retrieved from FRED, Federal Reserve Bank of St. Louis;
<https://fred.stlouisfed.org/series/TB3MS>, February 19, 2019.

Board of Governors of the Federal Reserve System (US), Net Percentage of Domestic Banks Tightening Standards for Commercial and Industrial Loans to Large and Middle-Market Firms [DRTSCILM], retrieved from FRED, Federal Reserve Bank of St. Louis;
<https://fred.stlouisfed.org/series/DRTSCILM>, February 19, 2019.

⁸ <https://www.nfib.com/assets/SBET-Jan-2019.pdf>

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