

US yield curve: Self-fulfilling prophecy?

Like everyone else, the Fed is watching the yield curve for signs of the next recession. But it seems unsure on what signal to take from the flattening curve



Source: Shutterstock

The yield curve tells us about recession risk

The US economic expansion is now into its ninth year, the second-longest on record. So even as growth is hitting new heights, it's little wonder there is more and more anxiety about when the next recession might come along. In particular, the US yield curve has been under [increasing scrutiny](#). When short-term rates rise above long-term rates and the curve inverts - a recession usually follows. This is why the inverted yield curve is one of the most widely followed early warning indicators.

The yield curve's predictive power is generally believed to be derived from the way the curve captures investor's beliefs about the outlook for the economy. When the economy is expected to

do poorly, investors prefer to lock in safe returns, which pushes long-term yields down relative to short-term yields, causing the curve to flatten and eventually invert.

If the Fed sees inversion as a reliable precursor of weaker growth, especially if it coincides with other signs of slowing growth, then an inverted curve could lead to slower hikes, or even a pause

But there is also an element of self-fulfilling prophecy going on here. If near-term yields are close to or higher than long-term ones, then banks and investors are incentivised to keep cash in relatively high-yielding short-term bonds rather than lend or invest in new projects which hampers economic growth in the near term. To the extent that markets take a flattening or inverted yield curve as a sign of trouble ahead, risk-aversion reinforces the adverse effect on the economy.

[Read: US yield curve and recession risk - watch the shape not the slope](#)

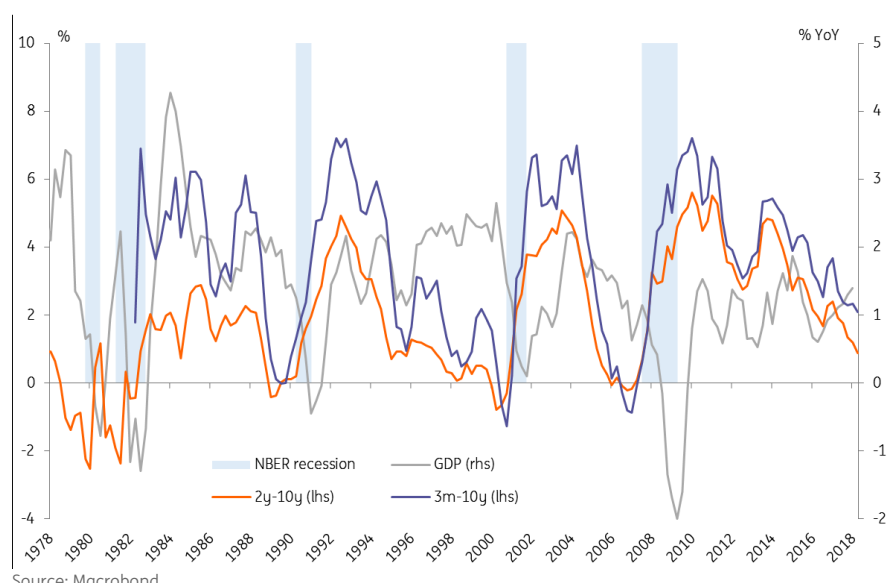
And it is flattening fast

The most commonly cited measure of yield curve inversion is probably the yield on a 10-year treasury bond minus that on a 2-year treasury bond. This relationship has turned negative ahead of each of the past nine recessions going back to the 1960s. Even when yield curve inversion turns out to be a 'false positive,' as in 1998, a flat or inverted yield curve typically coincides with a material slowdown in growth and a pause in the Fed's rate hike cycle.

The 3m-10yr curve, which Fed Governor [Lael Brainard recently cited](#), follows a similar pattern to the 2yr-10yr tends to invert closer to the start of a recession and has only produced one 'false positive' reading, back in the 1960s.

On both these measures, the US yield curve has flattened significantly over recent years. The 2y-10y curve is now just 29bps (vs. 51bps at the start of 2018), and the 3m-10y curve is at 93bps (from 101bps at the start of the year). History suggests this indicates a recession is more likely, though a downturn is probably not imminent just yet.

US yield curve inversion; measured by 2yr-10yr and 3m-10yr



But does the Fed believe it's different this time?

Fed officials have started to discuss the yield curve in recent speeches and [the minutes of the FOMC's June meeting](#) show that some are now questioning the reliability of the yield curve as an early warning signal.

"Participants pointed to a number of factors, other than the gradual rise of the federal funds rate, that could contribute to a reduction in the spread between long-term and short-term Treasury yields, including a reduction in investors' estimates of the longer-run neutral real interest rate; lower longer-term inflation expectations; or a lower level of term premiums in recent years relative to historical experience reflecting, in part, central bank asset purchases."

In short, some Fed governors appear to argue that yields on longer-term bonds, like the 10-year, are held down by a set of factors that either weren't present or were less important in previous economic cycles. That means the spread between short term and long term bonds will tend to be smaller than the past, and therefore may not have the same predictive value.

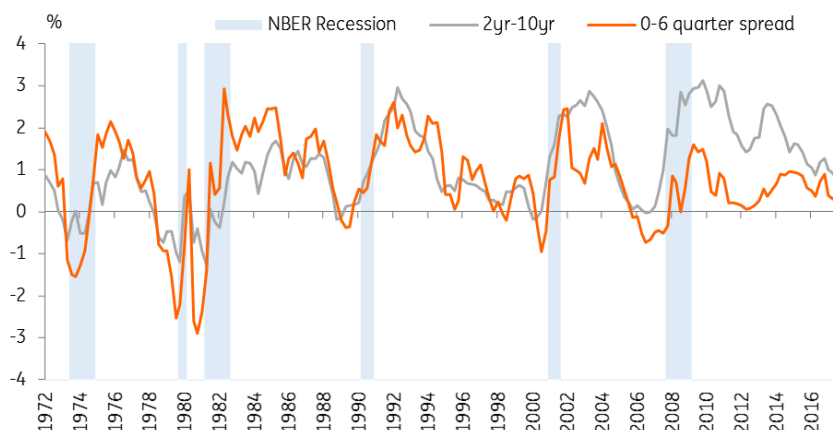
The minutes also show the Fed is looking at alternative measures that are less affected by term premia. Fed staff recently [published a comparison](#) of the predictive power of different measures of the yield curve. This research indicates that a shorter term curve comparing the current 3-month T-bill rate with the implied forward rate (on T-bills) six quarters ahead is a better predictor of an upcoming recession than longer tenor measures such as the 2yr-10yr.

Our rates strategists [also argue](#) that the 2yr5yr10 (butterfly) measure, which measures the shape of the curve across the short, medium and long-term tenors, is an accurate and more timely recession indicator, though it is also susceptible to quantitative easing distortions.

Both the measure favoured by Fed staffers and the butterfly measure favoured by our rates strategists have historically moved closely with the 2yr-10yr until 2008. In contrast to the 2yr-10yr and 3m-10yr measures, the shorter term curve has not flattened much in recent years and is broadly unchanged in 2018. If this is the better measure of recession probability, then there is less

cause for concern about the growth outlook.

The Fed's shorter term yield curve measure compared to the 2yr-10yr curve



Source: Macrobond and Federal Reserve

So what does this mean for Fed policy?

How the FOMC interprets the yield curve could make a big difference to the policy outlook.

If policymakers think a flat 2yr-10yr curve is less worrying than history suggests and chose to focus on the shorter curve, they are more likely to keep hiking rates even if the longer curve inverts. If they see inversion as a reliable precursor for weaker growth then an inverted curve, especially if it coincides with other signs of slowing growth, could lead to slower hikes, or even a pause.

It's not clear where the balance of the committee sits on this question. Chairman Powell downplayed the importance of the yield curve in his recent testimony to Congress. But perma-dove [Neel Kashkari has argued](#) that the flat yield curve is another reason why he prefers fewer rate hikes than the FOMC's current plan, and a number of other rate-setters have also voiced concerns about how markets would react to an inverted yield curve.

The FOMC will be mindful that a similar debate played out towards the end of the last rate hike cycle in 2005-06. The yield curve then inverted and the Fed kept hiking and a recession followed by the end of 2007.

For now, the question remains a hypothetical one. Even on the 2yr-10yr measure, the curve is still some way from inverting and if we are right in thinking 10-year yields are likely to push back above 3% then the curve should remain positive for some time yet.

Meanwhile, the US economy is firing on all cylinders: unemployment is near record lows, GDP growth on track for 3% or more this year, and inflation is above target. That means the case for the Fed to keep gradually raising rates remains strong. And while the Fed will continue to keep an eye on the yield curve, as long as economic fundamentals remain solid we think the FOMC is unlikely to change course.

Author

Alissa Lefebvre

Economist

alissa.lefebvre@ing.com

Deepali Bhargava

Regional Head of Research, Asia-Pacific

Deepali.Bhargava@ing.com

Ruben Dewitte

Economist

+32495364780

ruben.dewitte@ing.com

Kinga Havasi

Economic research trainee

kinga.havasi@ing.com

Marten van Garderen

Consumer Economist, Netherlands

marten.van.garderen@ing.com

David Havrlant

Chief Economist, Czech Republic

420 770 321 486

david.havrlant@ing.com

Sander Burgers

Senior Economist, Dutch Housing

sander.burgers@ing.com

Lynn Song

Chief Economist, Greater China

lynn.song@asia.ing.com

Michiel Tukker

Senior European Rates Strategist

michiel.tukker@ing.com

Michal Rubaszek

Senior Economist, Poland

michal.rubaszek@ing.pl

This is a test author

Stefan Posea

Economist, Romania
tiberiu-stefan.posea@ing.com

Marine Leleux
Sector Strategist, Financials
marine.leleux2@ing.com

Jesse Norcross
Senior Sector Strategist, Real Estate
jesse.norcross@ing.com

Teise Stellema
Research Assistant, Energy Transition
teise.stellema@ing.com

Diederik Stadig
Sector Economist, TMT & Healthcare
diederik.stadig@ing.com

Diogo Gouveia
Sector Economist
diogo.duarte.vieira.de.gouveia@ing.com

Marine Leleux
Sector Strategist, Financials
marine.leleux2@ing.com

Ewa Manthey
Commodities Strategist
ewa.manthey@ing.com

ING Analysts

James Wilson
EM Sovereign Strategist
James.wilson@ing.com

Sophie Smith
Digital Editor
sophie.smith@ing.com

Frantisek Taborsky
EMEA FX & FI Strategist
frantisek.taborsky@ing.com

Adam Antoniak
Senior Economist, Poland

adam.antoniak@ing.pl

Min Joo Kang

Senior Economist, South Korea and Japan

min.joo.kang@asia.ing.com

Coco Zhang

ESG Research

coco.zhang@ing.com

Jan Frederik Slijkerman

Senior Sector Strategist, TMT

jan.frederik.slijkerman@ing.com

Katinka Jongkind

Senior Economist, Services and Leisure

Katinka.Jongkind@ing.com

Marina Le Blanc

Sector Strategist, Financials

Marina.Le.Blanc@ing.com

Samuel Abettan

Junior Economist

samuel.abettan@ing.com

Franziska Biehl

Economist, Germany

Franziska.Marie.Biehl@ing.de

Rebecca Byrne

Senior Editor and Supervisory Analyst

rebecca.byrne@ing.com

Mirjam Bani

Sector Economist, Commercial Real Estate & Public Sector (Netherlands)

mirjam.bani@ing.com

Timothy Rahill

Credit Strategist

timothy.rahill@ing.com

Leszek Kasek

Senior Economist, Poland

leszek.kasek@ing.pl

Oleksiy Soroka, CFA

Senior High Yield Credit Strategist

oleksiy.soroka@ing.com

Antoine Bouvet

Head of European Rates Strategy

antoine.bouvet@ing.com

Jeroen van den Broek

Global Head of Sector Research

jeroen.van.den.broek@ing.com

Edse Dantuma

Senior Sector Economist, Industry and Healthcare

edse.dantuma@ing.com

Francesco Pesole

FX Strategist

francesco.pesole@ing.com

Rico Luman

Senior Sector Economist, Transport and Logistics

Rico.Luman@ing.com

Jurjen Witteveen

Sector Economist

jurjen.witteveen@ing.com

Dmitry Dolgin

Chief Economist, CIS

dmitry.dolgin@ing.de

Nicholas Mapa

Senior Economist, Philippines

nicholas.antonio.mapa@asia.ing.com

Egor Fedorov

Senior Credit Analyst

egor.fedorov@ing.com

Sebastian Franke

Consumer Economist

sebastian.franke@ing.de

Gerben Hieminga

Senior Sector Economist, Energy

gerben.hieminga@ing.com

Nadège Tillier

Head of Corporates Sector Strategy

nadege.tillier@ing.com

Charlotte de Montpellier

Senior Economist, France and Switzerland

charlotte.de.montpellier@ing.com

Laura Straeter

Behavioural Scientist

+31(0)611172684

laura.Straeter@ing.com

Valentin Tataru

Chief Economist, Romania

valentin.tataru@ing.com

James Smith

Developed Markets Economist, UK

james.smith@ing.com

Suvi Platerink Kosonen

Senior Sector Strategist, Financials

suvi.platerink-kosonen@ing.com

Thijs Geijer

Senior Sector Economist, Food & Agri

thijs.geijer@ing.com

Maurice van Sante

Senior Economist Construction & Team Lead Sectors

maurice.van.sante@ing.com

Marcel Klok

Senior Economist, Netherlands

marcel.klok@ing.com

Piotr Poplawski

Senior Economist, Poland

piotr.poplawski@ing.pl

Paolo Pizzoli

Senior Economist, Italy, Greece

paolo.pizzoli@ing.com

Marieke Blom

Chief Economist and Global Head of Research

marieke.blom@ing.com

Raoul Leering

Senior Macro Economist
raoul.leering@ing.com

Maarten Leen
Head of Global IFRS9 ME Scenarios
maarten.leen@ing.com

Maureen Schuller
Head of Financials Sector Strategy
Maureen.Schuller@ing.com

Warren Patterson
Head of Commodities Strategy
Warren.Patterson@asia.ing.com

Rafal Benecki
Chief Economist, Poland
rafal.benecki@ing.pl

Philippe Ledent
Senior Economist, Belgium, Luxembourg
philippe.ledent@ing.com

Peter Virovacz
Senior Economist, Hungary
peter.virovacz@ing.com

Inga Fechner
Senior Economist, Germany, Global Trade
inga.fechner@ing.de

Dimitry Fleming
Senior Data Analyst, Netherlands
Dimitry.Fleming@ing.com

Ciprian Dascalu
Chief Economist, Romania
+40 31 406 8990
ciprian.dascalu@ing.com

Muhammet Mercan
Chief Economist, Turkey
muhammet.mercan@ingbank.com.tr

Iris Pang
Chief Economist, Greater China
iris.pang@asia.ing.com

Sophie Freeman

Writer, Group Research

+44 20 7767 6209

Sophie.Freeman@uk.ing.com

Padhraic Garvey, CFA

Regional Head of Research, Americas

padhraic.garvey@ing.com

James Knightley

Chief International Economist, US

james.knightley@ing.com

Tim Condon

Asia Chief Economist

+65 6232-6020

Martin van Vliet

Senior Interest Rate Strategist

+31 20 563 8801

martin.van.vliet@ing.com

Robert Carnell

Regional Head of Research, Asia-Pacific

robert.carnell@asia.ing.com

Karol Pogorzelski

Senior Economist, Poland

Karol.Pogorzelski@ing.pl

Carsten Brzeski

Global Head of Macro

carsten.brzeski@ing.de

Viraj Patel

Foreign Exchange Strategist

+44 20 7767 6405

viraj.patel@ing.com

Owen Thomas

Global Head of Editorial Content

+44 (0) 207 767 5331

owen.thomas@ing.com

Bert Colijn

Chief Economist, Netherlands

bert.colijn@ing.com

Peter Vanden Houte

Chief Economist, Belgium, Luxembourg, Eurozone

peter.vandenhoute@ing.com

Benjamin Schroeder

Senior Rates Strategist

benjamin.schroeder@ing.com

Chris Turner

Global Head of Markets and Regional Head of Research for UK & CEE

chris.turner@ing.com

Gustavo Rangel

Chief Economist, LATAM

+1 646 424 6464

gustavo.rangel@ing.com

Carlo Cocuzzo

Economist, Digital Finance

+44 20 7767 5306

carlo.cocuzzo@ing.com