Recession indicators: Factors keeping us awake

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UOB Asset Management

The current expansion is the longest on record, at over 10 years, which raises concerns of a recession picking up. Against a backdrop riddled with uncertainty and geopolitical tussles, it is vital to monitor the fundamental indicators that more accurately point towards the recession timing.

Getting the timing right is important – investors can still seek opportunities at the juncture of a late stage expansion. While predicting recessions is never easy, we have developed a recession probability model comprising a checklist of indicators to guide outlook and positioning.

No single indicator can determine a recession but here are those that we focus on - each is assessed on a spectrum with an arrow denoting the severity.

Recession	Worry	Caution	Benign	No trigger

For context, this was how the recession checklist looked in the first half of 2007, prior to the global financial crisis (GFC) that began around December 2007/January 2008.

Recession indicator	Warning signal				
	Recession	Worry	Caution	Benign	No trigger
Yield curve inversion		↓			
Leading indicators	↓				
Leverage	↓				
Fed probability models			↓		
Financial stress warning signs		↓			
High yield vs investment grade spreads		↓			
Asset correlation spikes	↓				

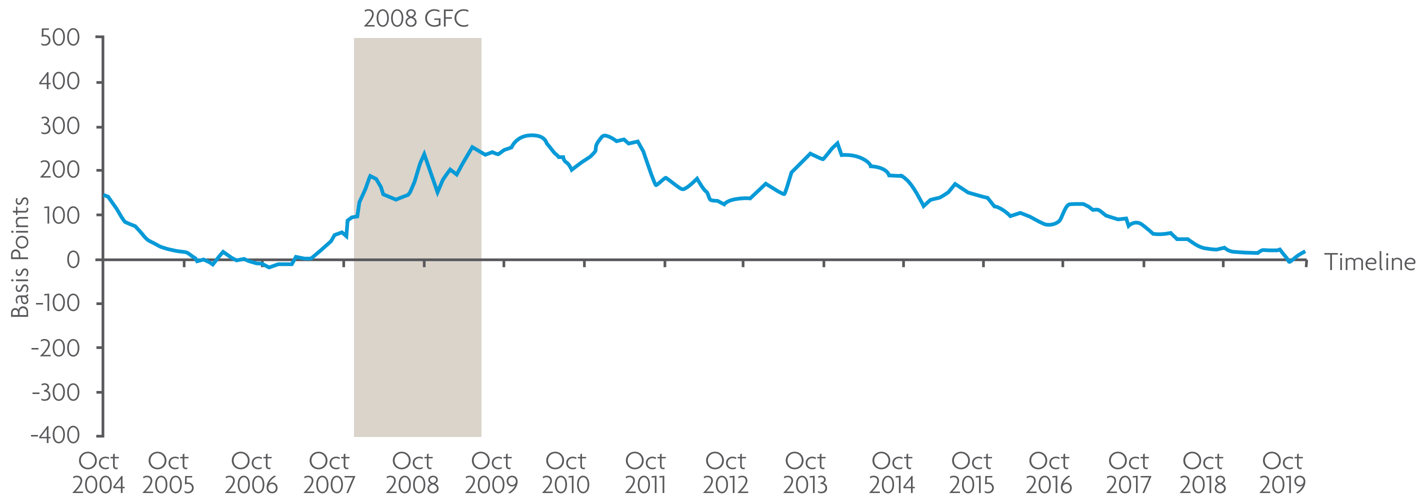
Out of seven recession indicators, three were flashing in recession territory – market correlations, leverage concerns and leading indicators. The other three were in the "worry zone" and one was indicating "caution".

Fast forward to November 2019, no recession indicator is firmly in recession territory. Most (four out of seven) are in the "worry zone", two are showing signs of "caution" and one is in the "benign" stage.

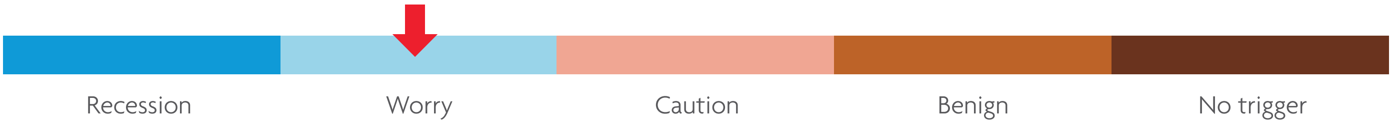
US Treasury yield curve inversion

This is the most closely scrutinised signal. On average, the recession started 17 months after the US Treasury yield curve inverted in the past five economic expansion cycles. Fears of an impending US recession emerged when the yield curve inverted in August 2019 – the inversion has historically been a reliable predictor of recessions.

Yield curve inversion: Difference between the 10-year and 2-year Treasury yield



Grey area indicates periods of recession

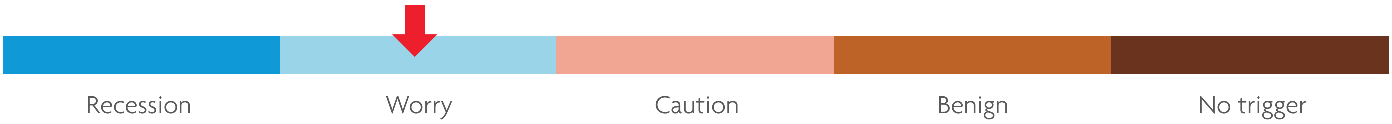


We do not interpret the US Treasury yield curve to be sending a recessionary signal. In addition, the yield curve has steepened since October 2019, indicating that investors are less nervous over the state of the economy with data stabilising.

Leading indicators

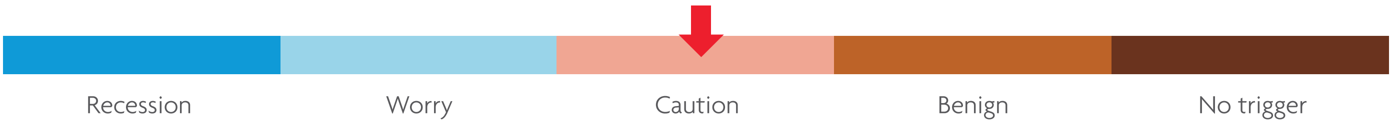
A hybrid of leading indicators put together by the Conference Board Leading Economic Index (LEI) is used to forecast the direction of global economic movements in future months. This index measures 10 economic components whose movements precede changes in the global economy. It includes:

- Real Gross Domestic Product (GDP)
- Money supply (M2)
- Consumer Price Index (CPI)
- Producer Price Index (PPI)
- Consumer confidence
- Employment statistics
- Retail trade sales and food services sales
- New housing construction
- Manufacturing and trade inventories and sales
- S&P 500 Index



Often, the composite dips into negative territory for a year before the onset of a recession. Looking at the current cycle, although the composite looks to be a source of worry, we are closely monitoring for signs of deceleration.

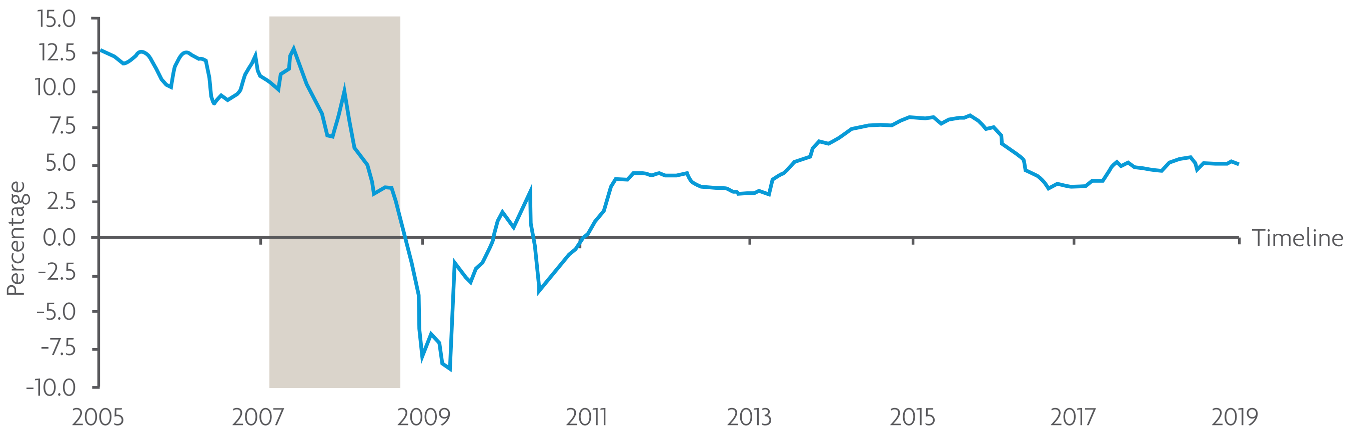
Leverage



The environment of ultra-low interest rates has helped to sustain corporate debt borrowing, in part fueled by accommodative global central bank monetary policy. In the event of a slowing global economy, debt-to-GDP and debt-to-corporate earnings ratios would increase.

Recall that in 2008, the financial crisis began with outsized leverage within the US subprime mortgage sector. High leverage leads to the increased likelihood of corporate defaults that could worsen the effects of other shocks. The worry is that high debt burdens could weigh negatively on the global economy as businesses reel from the effects of US-China trade disputes.

Lending: Level of loans and leases in bank credit



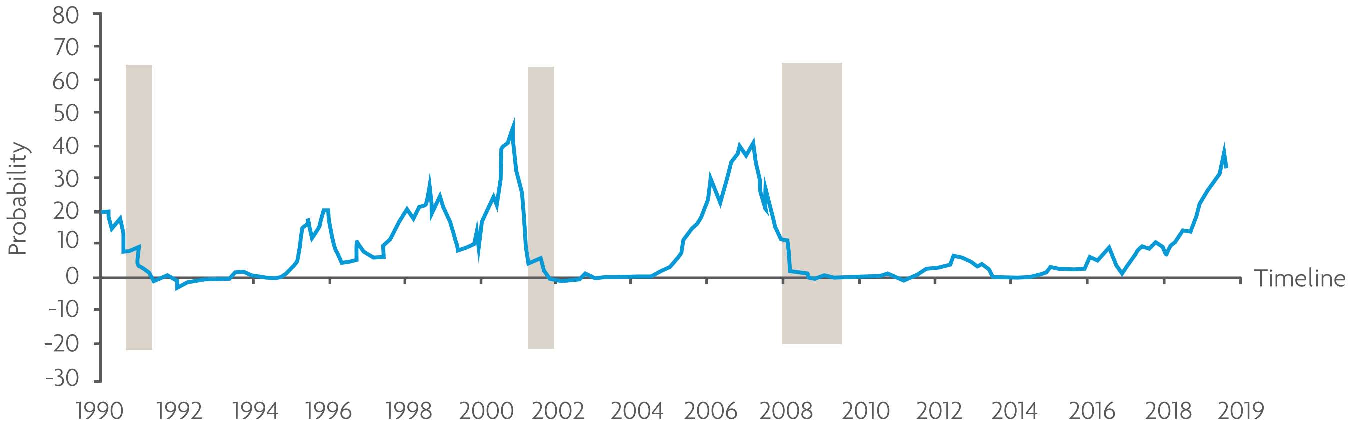
Grey area indicates periods of recession

In comparison to other forms of leverage including government debt to GDP, corporate bond issues and shadow financing, we track the growth of loans and leases in bank credit as it tends to have the strongest multiplier effect on the economy. Currently, the growth of loans and leases in bank credit remain below levels compared to the last recession. .

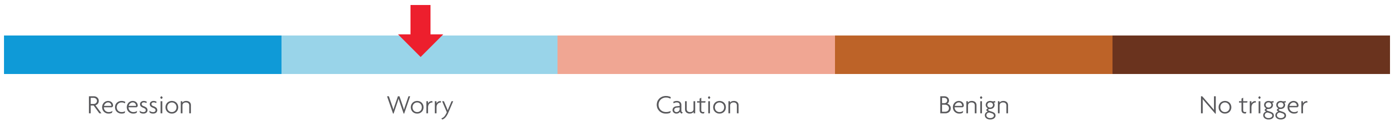
Federal Reserve probability model

The New York Federal Reserve's probability model, which predicts the probability of a US recession in the next 12 months, is now tethering closer to levels seen before the global financial crisis.

US recession probability



Grey area indicates periods of recession

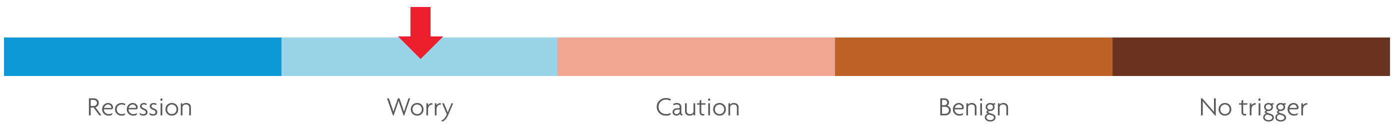


While the level (at 29) may suggest a close call, the Fed's policy has shifted towards an accommodative stance, borrowing rates are way below levels that would choke off economic growth and minimal odds of a recession within the next year.

Financial stress warning signs

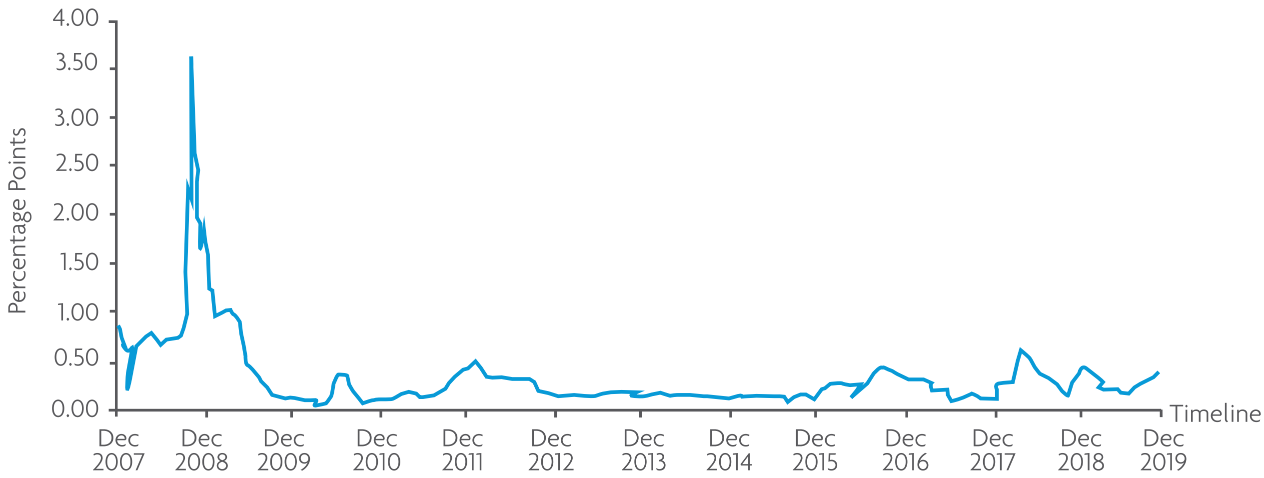
Much of turmoil in the markets is often glean ahead of time from the bank liquidity spreads. The London interbank offer rate (LIBOR) is the rate which banks lend to other banks while the overnight indexed swap (OIS) rate is a measure of the market's expectation of the overnight funds rate over the term of the contract. Put together, the Libor-OIS spread is the difference between the rate for an unsecured loan and the risk-free rate. It is assumed to be a measure of the health of banks as it reflects what banks believe is the risk of default associated with lending to other banks.

> "Libor-OIS remains a barometer of fears of bank insolvency"
>
> - Alan Greenspan, Former US Federal Reserve Chairman



Prior to the last financial crisis during the beginning of 2007, the LIBOR-OIS spreads shot up, indicating worsening credit conditions in the economy. At current levels, it is barely a cause for concern.

LIBOR-OIS in USD

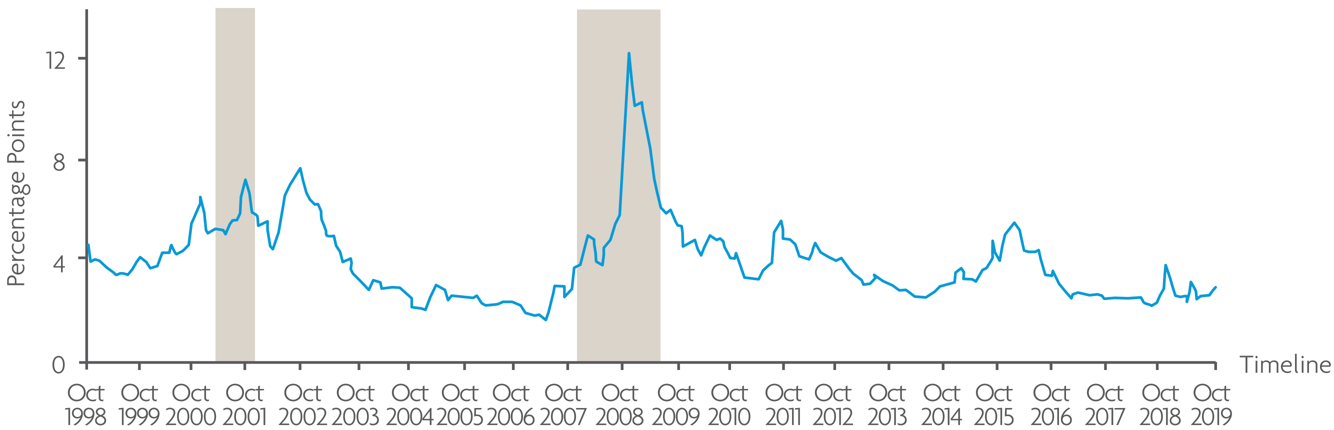


Spreads: High yield vs investment grade bonds

Investors need to be compensated for riskier positions - companies issuing bonds with weaker financials will trade at higher yield. If the economic situation begins to deteriorate which threatens to possibly undermine the ability of the company to pay investors, spreads will move up to compensate for the higher risk.

As a common late cycle signal, high yield (HY) bond spreads begin to widen against their investment grade (IG) counterparts such as government bonds in the final year of an economic expansion. A narrowing spread thus indicates that investors are optimistic on the outlook.

Spreads: High yield vs investment grade corporate bonds



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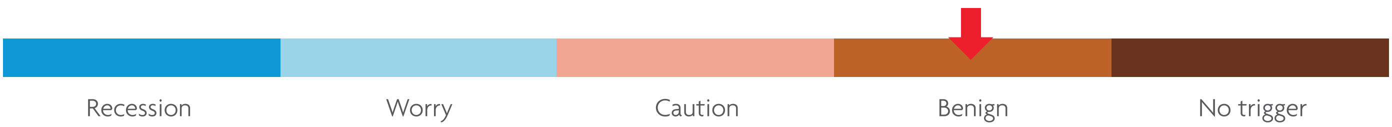
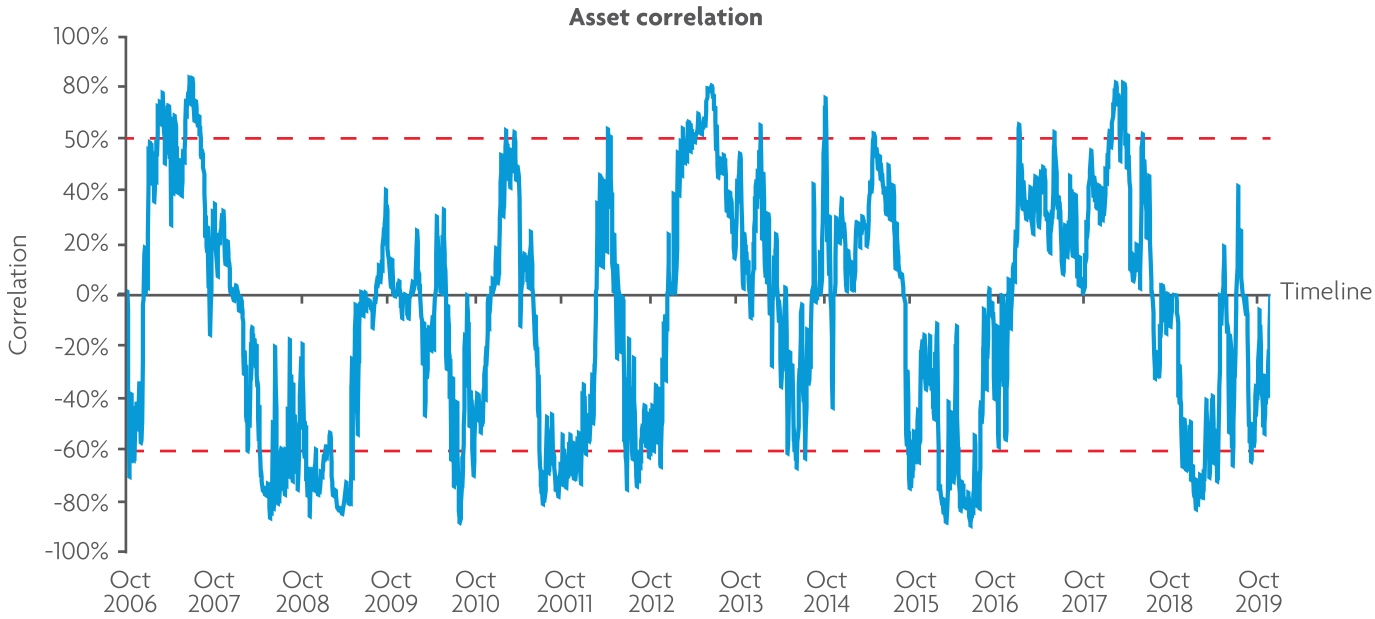


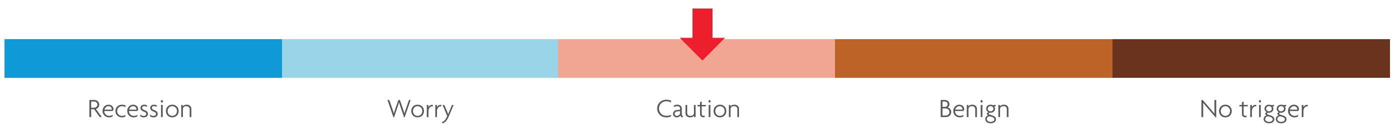
Often the spreads widen (with the line trending upward) if investors are anxious. Currently, spreads are relatively tight as companies are not showing signs of distress.

Asset correlation spikes

Asset correlation is the degree to which the price of a financial instrument is affected by a change in the price of another. When assets move in the same direction at the same time, they are considered to be highly correlated. When one asset tends to move up when another goes down, the two assets are considered to be negatively correlated.



The implications of negative high asset correlation are triggered during times of worry when the line begins to trend downward and below zero (See figure above). This occurs as multiple asset classes tend to be sold off altogether when markets decline.



The reading depicts only a mild risk as current levels of correlation indicate only a 43% chance of a recession.

Conclusion

There are compelling reasons for investors to tone down anxiety on possible recession signals.

Our assessment of recession indicators is increasingly painting 2020 to be a mixed picture. A pessimistic perspective suggests that high returns are increasingly unlikely given dampened global growth, full valuations and limits on earnings growth. At the same time, investors are kept alert amidst a seemingly never-ending cycle of sluggish growth alongside anemic inflation levels and negative interest rates across major developed countries.

Meanwhile, the good news is that risks are diminishing and growth is somewhat stabilising. Trade issues between the US and China is one large driving factor that continues to hang over the markets and sentiment towards progress can quickly overshadow the economic fundamentals and the actual indicators themselves. We find comfort with progressions from Beijing and Washington to de-escalate the issue and have the optimism that the Fed's insurance rate cuts will keep the economic engine going.

All graphs are taken from Bloomberg as at end October 2019

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