

Research Institute - Insight

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US recession risk: What do quantitative models say?

The benign loosening in the US labour market increases the probability of a soft landing. But, on balance, we think this dynamic can't continue forever. Our quantitative recession risk framework continues to suggest high risks in the medium term, as do signals from the yield curve and leading economic indicators.

Key Takeaways

- Our quantitative models are signalling a high risk of a recession in the medium term (12-24 months).
- But these require careful interpretation given the receding risk in the near-term models, especially over the three- and six-month horizons. This has been primarily driven by the repricing of recession risks in financial markets.
- Other typical recession indicators, like the yield curve and the Conference Board's Leading Economic Indicator (LEI), are still flashing red.
- The loosening in the US labour market has so far been benign, with declining vacancies rather than higher unemployment helping lower inflation pressures. But this may prove temporary. The final leg of returning inflation to target could require a move upward in unemployment.
- Corporates may well cut back on hiring amid increasing pressure on margins due to elevated wage growth and higher financing costs.
- Meanwhile, consumers also face growing headwinds with depleted savings piles, the resumption of student loan repayments and higher debt servicing costs resulting from rates remaining higher for longer.
- Therefore, while the potential for a soft landing has increased, we continue to see an eventual mild recession as the most likely eventual outcome for the US economy.

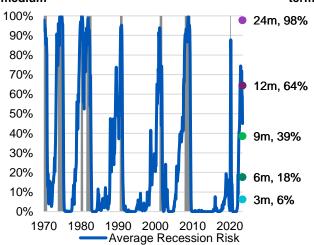
Waiting on recession

We, like many other forecasters, have for some time anticipated that the US economy would enter a recession during our forecast horizon. We continue to think this based on our quantitative models and broader analysis, but it has become an even closer call, and the downturn is likely to occur later and be shallower than we first thought.

Our recession models still signal a risk in the medium term

In our recession prediction framework, our medium-term models (12-24 months) signal elevated risk, but the ninemonth model probability has fallen below 50%. Our shorter-term models on the other hand have declined markedly, suggesting that a recession isn't imminent.

Figure 1: US recession risks still elevated in the medium term



Source: Haver, Bloomberg, abrdn, October 2023



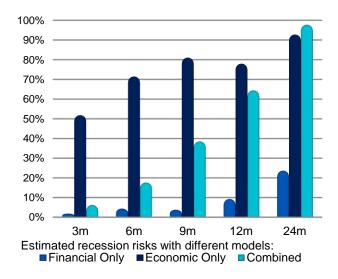
The lower near-term risk reflects a repricing in financial markets

Our recession models use an estimation technique called Bayesian Model Averaging (BMA), which allows the variables included in each model to change depending on the time horizon over which we are predicting recession risks.

Greater weight is put on financial variables in short-run models rather than in long-run ones. As a result, near-term risks have declined by more than medium- to long-term ones on the back of a better tone in financial markets.

Indeed, there is a large difference in recession risks between models including only economic variables and those using only financial ones (see Figure 2).

Figure 2: Different variables matter at different time horizons



Source: Haver, Bloomberg, abrdn, October 2023

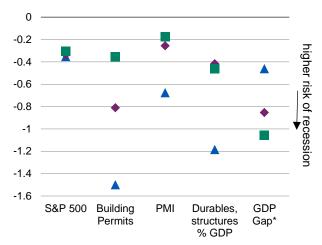
Recession risks based on financial variables alone have decreased markedly, given the repricing of downside risks in markets in favour of a more benign soft landing in the US economy. The same cannot be said of economic-only models, in which risks of recession have declined to a lesser extent. In medium-term models, where the economic variables tend be better predictors of recession, combined risks are still sitting above 50%.

These models require careful use

These models are far from infallible. In December last year, our recession-risk models began to breach the 50% level, indicating that a recession was more likely than not. They signalled a 60% probability a downturn would occur by March 2023, a 67% chance it would hit before June 2023 and a 70% likelihood of it occurring before September 2023.

Despite this, a recession has yet to happen and remains unlikely this year barring extraordinary data revisions.

Figure 3: During 2022, many data series were at or near levels historically consistent with recession



- ▲ Z-score of series in December 2022
- ◆ Average Z score 3m ahead of past recessions
- Average Z score 6m ahead of past recessions

*inverted - above average indicates higher recession risk

Source: Haver, abrdn, October 2023

The Federal Reserve's (Fed) policy tightening was clearly weighing on the interest rate-sensitive housing sector, pushing permits lower and reducing structures investment. The equity market was also weak – the S&P was down 16% on the year in December 2022, which historically would be consistent with an increased risk of recession.

This weakness in equity markets proved short-lived however, and even interest rate-sensitive sectors like housing have rebounded since then. Therefore, risks in the short-term models have declined rapidly.

The softness in the manufacturing PMI was also signalling an elevated risk of recession around the end of 2022. In retrospect, this could have been more reflective of pandemic distortions than of weak demand, as this weakness did not broaden out to the services sector.

These nuanced dynamics are not something that the recession prediction framework can account for statistically and it can be difficult to disentangle supply and demand dynamics in real time.

That's why these models are just one input into our forecasting process. But other elements of our economic analysis corroborate the signal that the risks of a recession are not immaterial.

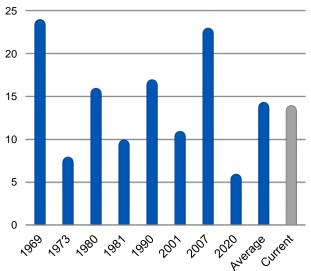
Other long-standing recession indicators remain in the red

Model-implied risks based on the current inversion in nominal yields are very elevated – at 94% within 12 months and 69% within 24 months.



The duration of the inversion is about in line with those seen historically ahead of downturns, but clearly the 1969 and 2007 recessions suggest the period of inversion can be much longer.

Figure 4: Duration of yield curve inversion ahead of past recessions



Length of Yield Curve Inversion Ahead of Past Recessions

Source: Absolute Strategy Research, October 2023

The behaviour of the yield curve tends to shift just ahead of a recession – as markets begin to price cuts from the Fed, the curve typically re-steepens right on the cusp of a recession. Back in spring this year, when fears around the banking sector were most acute, we did see this resteepening begin to occur, however, this has been priced away again, suggesting a recession is not imminent.

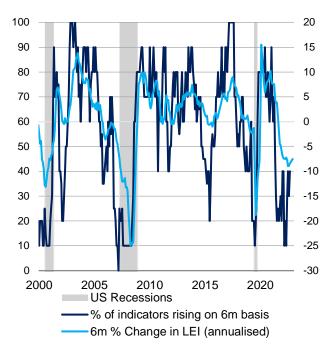
The Conference Board's Leading Economic Indicator (LEI) is another indicator that can signal upcoming turning points. It is similar to the method the National Bureau of Economic Research (NBER) uses to define recessions. The indicator tracks 3D's (depth, duration, and diffusion) in the slowdown across ten key activity measures in the US economy.

When assessing the recession signal from the LEI, both the decline in the indicator during the previous six months and the breadth of slowing across input data are considered. An annualised decline of 4.2% over the previous six months is one trigger and a diffusion index is constructed to measure the number of series that are improving on a six-month basis to measure the breadth of strength or weakness in the economy.

Currently the diffusion index is sitting at 40% (four out of ten indicators are improving) and the six-month change is -7.5%, up from a trough of -9% in March.

The improving indicators are the S&P 500, building permits, new orders of consumer goods, and hours worked in manufacturing, while all the other components are weakening, with a greater degree of softness in non-financial variables relative to financial ones.

Figure 5: Depth and breadth signal from LEI



Source: The Conference Board, Refinitiv, October 2023

Typically, ahead of recessions, the diffusion of weakness would be broader than it is now, perhaps moderating the strength of the recession signal from the LEI. Indeed, there are several elements of the economy which have shifted to be more supportive of a soft-landing, hence the changes in our scenario distribution with this outcome becoming more likely.

Some soft-landing signals may begin to fade

The so far benign loosening in the labour market (see Figure 6a) is supportive of a higher probability of a soft landing. This, combined with a steep slide down the Phillips curve (see Figure 6b), resulted in an easing of inflation pressures without an increase in unemployment.

Historically, peaks in the vacancy rate are followed by periods of rising unemployment as businesses cut back on workers. But the post-pandemic surge in job postings was far greater than seen in previous business cycles, with matching efficiency – how easily workers are matched to open vacancies – depressed during the reopening of the economy.

However, the recent decline in vacancies has so far not led to a higher unemployment rate. Matching efficiency has improved, and companies may be holding onto labour following a period in which it was in short supply.

But dynamics in job vacancies may just mean that the adjustment via unemployment takes longer to materialise. It's also possible that, as the economy moves down the Phillips curve, the slope flattens, meaning that a further reduction in inflation requires a greater adjustment in the labour market.



We therefore just about <u>hold onto our recession call</u> and believe that the next phase of adjustment may well be less benign.

The economy is yet to feel the full force of monetary tightening

Alongside still elevated risks in the medium term, we think the economy has not yet absorbed the full force of the Fed's hiking cycle.

Consumers have kept the economy going by drawing on piles of excess savings, which by most estimates are nearly depleted. Headwinds are expected to grow through the end of the year with the resumption of student loan repayments and credit remaining costly at high rates of interest.

Figure 6a: A benign loosening in the labour market

Vacancy Rate (%) [Red marker indicates vacancy rate projected]

8

7

6

5

4

3

2

1

0

5

10

15

20

Unemployment

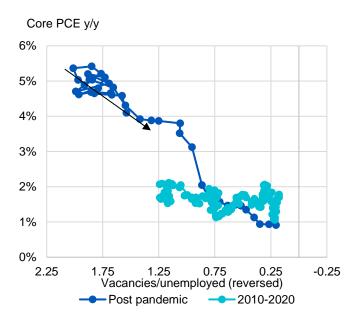
Source: Haver, abrdn, October 2023

For corporates, those that borrow through capital markets are likely to face higher refinancing costs in 2024/25 and those that rely more heavily on bank financing are already experiencing more stringent lending standards. The Senior Loan Officers Survey (SLOOS) suggests that credit conditions are very tight by historic standards. This will lead to a further softening in the labour market, perhaps prompting households to reign in their spending.

In conclusion, we still see evidence in our models and other indicators that the US economy may begin to run out of steam, heading into a recession next year.

However, the pathway to a soft landing has certainly widened, and mixed signals from the economy and the benign loosening in the labour market mean that any downturn will not be as deep as previously expected.

Figure 6b: Sliding down the Phillips curve



Source: Haver, abrdn, October 2023

Author

Abigail Watt



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