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Assessing the odds of a US recession

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Selected financial indicators that feed into the writers' weekly model suggest that the near-term odds of a prospective recession have risen to above-average levels. PHOTO: AFP

Assessing the odds of a US recession

While America is currently not in a downturn, the near-term odds of one have edged up, according to models based on key monthly and weekly indicators. BY THOMAS LAM AND DAVID FERNANDEZ

A SIMPLE exercise with Google Trends shows that web searches in the United States on the term "recession" jumped in 2022, and stretched beyond the levels of the last two economic downturns. Notwithstanding the aforementioned web popularity and social media buzz, there is no consensus on what constitutes a business cycle recession. The official definition of a recession in the US is actually "fundamentally different" than the mechanical rules of thumb in many other countries. Arguably, a global recession, though conceptually recognised as a detrimental event, can be technically deemed a hodgepodge.

The National Bureau of Economic Research Business Cycle Dating Committee (NBER BCDC) officially determines the peaks and troughs in the US economy. Essentially, the NBER BCDC fits the depth (ie, "significant decline"), diffusion (ie, "spread across the economy") and duration (ie, "more than a few months") criteria flexibly on selected indicators in each episode to subjectively gauge the occurrence of a recession, which is the "period between a peak of economic activity and its subsequent trough". The NBER BCDC has hitherto announced the determination of economic peaks and troughs for the prior six episodes, with a lag of almost 12 months on average (peak announcements occur sooner than trough). This is because the NBER BCDC aims to be definitive and exhaustive, not timely and ambiguous.

Although the NBER BCDC maintains a long business cycle chronology, a meaningful comparison of post-World War II with pre-war episodes is hindered by data limitations and methodological inconsistencies. But using post-war data per se, available research has shown that recessions have shortened, and expansions have lengthened on average. More specifically, our analysis suggests that recessions, punctuated by diverse influences episodically, occur roughly 10 per cent to 15 per cent of the time on balance since 1945 (measured on a monthly frequency).

Despite the infrequency of downturns, lagged official announcements and a complex determination process, US recessions are, by-and-large, unique and prominent events. For instance, we find that the US equity market tends to pull back – with a gross median monthly annualised decline of 26 per cent to 39 per cent, or a gross monthly annualised maximum drop of 44 per cent to 69 per cent (inflation-adjusted terms) – around recession episodes since 1945. Also, our analysis indicates that US recessions generally coincide with subnormal growth in many other economies globally. Indeed, headline growth in more than 50 per cent of the economies in the world, including Asia, is inclined to be softer on average around US recessions (using data from 1960).

As a result, this raises the importance of predicting or guesstimating the prospect of a recession in the US. But because recessions are triggered by diverse sources and events, endogenously or exogenously, they are undeniably challenging to pin down. Nevertheless, the initiators of the NBER BCDC, Arthur Burns and Wesley Mitchell, remind us that to increase your chances of getting things right, you ought to "combine analysis of current data" with "some knowledge of the history of business cycles", and not allow your "hopes and fears" to alter your "judgments more than is inevitable".

Using a different methodology

We hope that our attempt to assess the likelihood of a recession by harnessing a range of indicators (economic and financial), putting emphasis on a roughly coincident or contemporaneous timing (due to uncertain and inconsistent leads) and evaluating a longer data history (the last 13 recessions back to 1945) could potentially offer better informed guesses of US business-cycle turning points.

One approach to estimate the probability or odds of a recession is to use a probit framework (essentially, modelling a binary outcome of whether the US is in a recession or not). Broadly, we apply probit regressions, one with monthly indicators (selected labour and broader economic data only) and another with weekly inputs (relevant labour, broader economic and financial data), to tease out the contemporaneous odds of a recession.

Our experimental Monthly Recession Odds model, which has roughly coincided with the prior 13 US recessions, produces a probability of less than 20 per cent through January, far below the alert threshold of roughly 60 per cent. Our experimental Weekly Recession Odds model, while naturally more volatile and which only extends back to the last eight recessions, shows a substantially higher probability of around 60 per cent through early February, but still under the alert threshold of above 80 per cent.

On the whole, the main takeaway from the Monthly and Weekly models is that the estimated odds have edged up – with both the devil and angels in the details – but the US economy is *currently* not in a recession. On the one hand, pertinent labour and broader economic data at this juncture have not worsened sufficiently on balance. On the other hand, however, selected financial indicators that feed into the Weekly model seem to emit a more cautionary signal, suggesting that the near-term odds of a prospective downturn have risen to above-average levels. Besides, with trend inflation still exceeding the Federal Reserve's longer-run goal, the differing views on the terminal rate might risk an abrupt tightening of financial conditions.

Hence, it is far from clear how the apparent tug-of-war between financial and economic indicators at this time is likely to skew the contemporaneous recession odds in future. While financial indicators can potentially generate excess predictions, reflect "reverse causality", or succumb to some version of Goodhart's Law, the current quagmire also implies that any recession signal from a single indicator, regardless of its prior track record, might not be ideal. Indeed, available research suggests that it is typically less challenging to predict the end of a post-World War II recession than the start of one generally.

The writers are from the Sim Kee Boon Institute for Financial Economics, Singapore Management University. Thomas Lam is principal researcher, and David Fernandez is director.

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