# Special topic: Can you trust recession forecasts?

**From the Field**
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## Key Insights

- A simple three-factor model puts the odds of a recession over the coming 12 months at 92%, but it ignores some positive economic signals.

- But simply adding two more variables—stock returns over the past year and the level of unemployment—brings the odds down to 11%.

- The recession narrative ignores the "cushions" created by the pandemic normalization, aggressive fiscal spending, and the impact of preemptive Fed cuts.

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**T**he 12-month probability of a U.S. recession based on a simple three-factor model is 92%. Unemployment is rising, the Manufacturing Purchasing Managers' Index (PMI) is at 47, and the yield curve is flashing red. This data configuration is reminiscent of early 2007.

Scary.

But it's hard to trust these probabilities. The data are messy, and some signals are flashing green.

It's not surprising, then, that there's no consensus among economists on the likelihood of a recession among economists. In early August, many were arguing that the economy was at the "highest risk" of recession.[1] Two weeks later, on August 19, Goldman Sachs lowered its recession risk forecast from 25% to 20% because the recent data "shows no sign of recession."[2] What gives?

Adding variables to the model built by our Multi-Asset research team puts us closer to the Goldman view—indeed, it paints an even more favorable picture. If we add stock index returns from the last year and the level of unemployment to our model, the statistical recession probability drops from 92% to 11%. (See an important caveat on these probabilities on page 3.)

[1] https://abcnews.go.com/Business/recession-fears-loom-economy-time/story?id=112588104
[2] https://www.cnbc.com/2024/08/19/goldman-sachs-cuts-odds-of-us-recession-to-20percent-on-fresh-data.html

**My view:** I'm relatively optimistic about the U.S. economy and trust this broader model. Equity valuations and spread levels agree. Hence, opportunities to significantly overweight risk assets are limited. The Asset Allocation Committee's analysis supports a fully invested (neutral) or slightly risk-on position. Investors could also consider averaging in equities throughout this historically weak season and potential election-related volatility.

## The model

How do we arrive at the 92% and 11% probabilities?

We start with three indicators:

- The Institute for Supply Management's Manufacturing PMI

- The difference between the 10- and 2-year U.S. Treasury yields (the 10–2 yield curve)

- The change in U.S. unemployment over the last year

Our model accounts for volatilities and correlations across the indicators. This is important. It's not just about the level of each variable, it's also about the "configuration" or interaction among them.[3]

The table below shows current values for each variable compared with historical averages one month before and during recessions.

### Historical Recession Indicators

| | August 2024 | One Month Before Recession | Recession Average |
|---|---|---|---|
| Manufacturing PMI | 47.2 | 50.1 | 44.1 |
| 10–2 Yield Curve | 0.0 | 0.1 | 0.8 |
| 12-Month Change in Unemployment | 0.4 | 0.0 | 1.3 |

January 1970–August 2024
Source: Macrobond. All data as of August 2024. Recession and pre-recession averages are based on National Bureau of Economic Research dated recessions from 1/31/1970 to 8/31/2024 and are winsorized* at 2.5% and 97.5%. All series start in 1970, except for the 10–2 curve, which starts on 6/30/1976.
* Winsorized refers to a method of averaging that minimizes the impact of outlying numbers. It is a statistical technique that limits the impact of outliers in a dataset by replacing extreme values with less extreme values.

According to our model, using these three indicators generates a statistical probability of recession of 92%. Historically, when moving into recessions, Manufacturing PMIs have fallen, the yield curve has de-inverted, and unemployment has risen—all similar to the current environment. It's a toxic brew of indicators in precisely the right proportions for a recession.

[3] My team and I use the so-called multivariate Mahalanobis distance measure. For an overview of some of the main theoretical foundations behind our model, see: https://globalmarkets.statestreet. com/research/service/public/v1/article/insights/pdf/v2/5b4b47fa-8256-4e4a-8991-afe13469268b/ joim_a_new_index_of_the_business_cycle.pdf

Next, we add the following two variables:

– S&P 500 Index returns (last 12 months)

– U.S. unemployment level

## Historical Recession Indicators (Expanded)

| | August 2024 | One Month Before Recession | Recession Average |
|---|---|---|---|
| Manufacturing PMI | 47.2 | 50.1 | 44.1 |
| 10–2 Yield Curve | 0.0 | 0.1 | 0.8 |
| 12-Month Change in Unemployment | 0.4 | 0.0 | 1.3 |
| S&P 500 12-month return | 27.0 | 2.4 | -7.6 |
| Unemployment level | 4.2 | 5.2 | 6.6 |

January 1970–August 2024
Source: Macrobond for all data except S&P 500 (Haver). All data as of August 2024. Recession and pre-recession averages are based on National Bureau of Economic Research dated recessions from 1/31/1970 to 8/31/2024 and are winsorized at 2.5% and 97.5%. All series start in 1970, except for the 10–2 curve, which starts on 6/30/1976.

Repeating the same statistical calculations, the probability falls to 11%. Based on historical evidence, strong stock market returns and low unemployment rates are unlikely to signal a recession. Of course, using stock returns can lead to a circular reference when making investment decisions, but stocks are considered a leading indicator of recessions.

**A caveat:** We tested several variations of these models, and the 92% to 11% disparity between any two was the highest—and best amplifies my point that the data that you choose to use have a major impact on recession probabilities. Across iterations, however, we observed the same general tendency of model probabilities to drop when adding a broader range of indicators that account for market variables (stock returns, credit spreads) and employment data levels (unemployment, claims, job openings, etc.). Adding services PMI also lowered the probability.

## Conclusions

My takeaway is not that "this time is different"—saying that is worse than swearing in some investment circles. But I think that the recession narrative for the U.S. has conveniently ignored the bright green "cushions" created by the pandemic normalization, aggressive fiscal spending, and the positive liquidity impact of preemptive Fed cuts.

As for our positioning, with bright red signals to the left and bright green signals to the right, should we stay in the middle lane when it comes to stocks versus bonds?

Perhaps we should since equities seem to be pricing in the optimistic scenario. However, our Asset Allocation Committee has started discussing at what S&P 500 level we would be prepared to add to risk assets should we encounter volatility over the next few months— which is highly likely given the upcoming election.

*Collaborators: Leo Liu, Charles Shriver, and Rob Panariello. Special thank you to Leo Liu for running the empirical analysis on short notice.*

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