

MOODY'S

Recession Watch

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September 2025

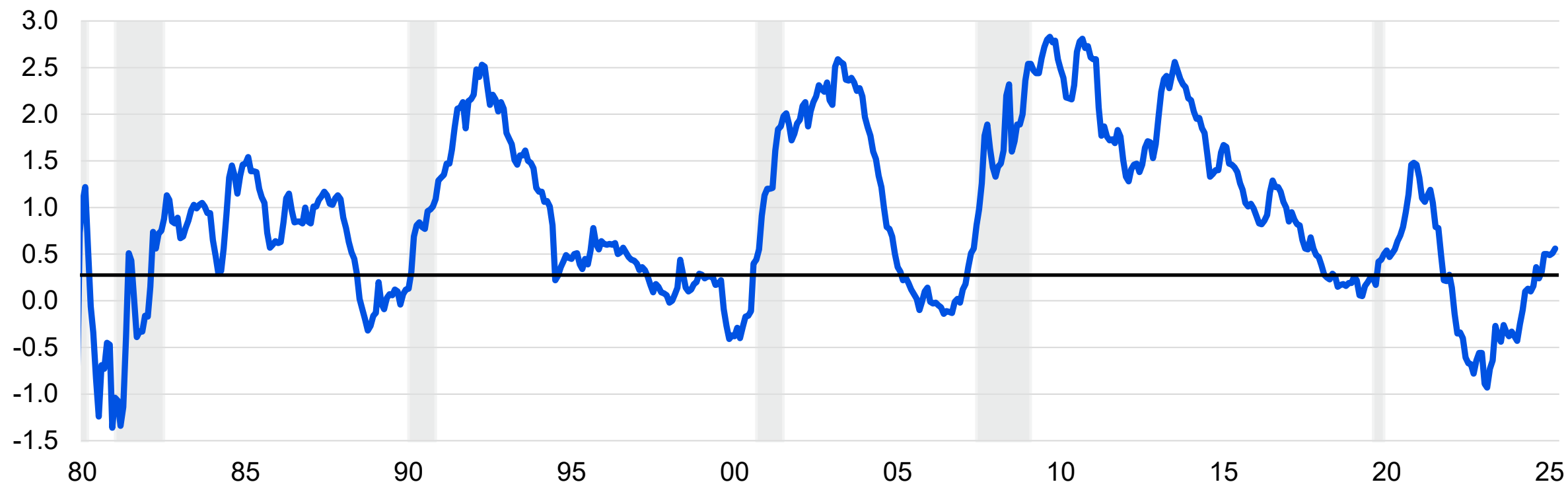
The background of the slide is a solid dark blue. Overlaid on this are several layers of thin, light blue lines that form a complex, wavy, and somewhat chaotic pattern. These lines create a sense of movement and depth, resembling a stylized representation of a signal or a network. The pattern is most dense on the left side and fades slightly towards the right.

1

Recession Bellwethers Fail to Deliver

A Warning Sign, Historically

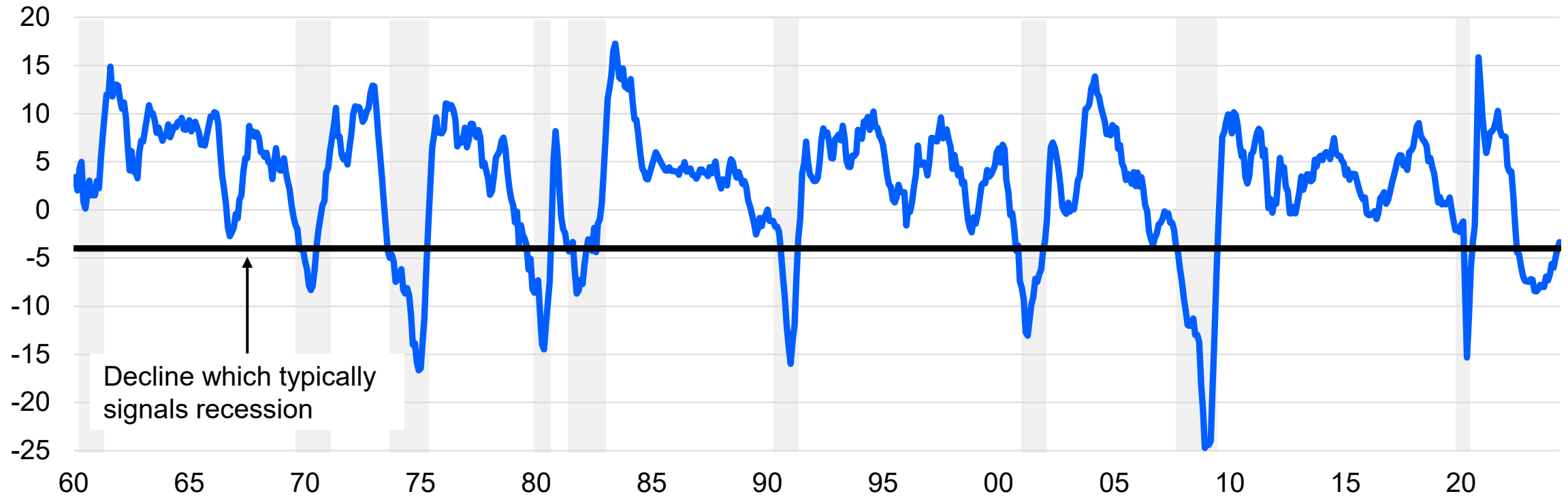
10-yr and 2-yr Treasury yield spread, %



Source: Federal Reserve, Moody's Analytics

The LEI Has Also Typically Predicted Changes in the Business Cycle

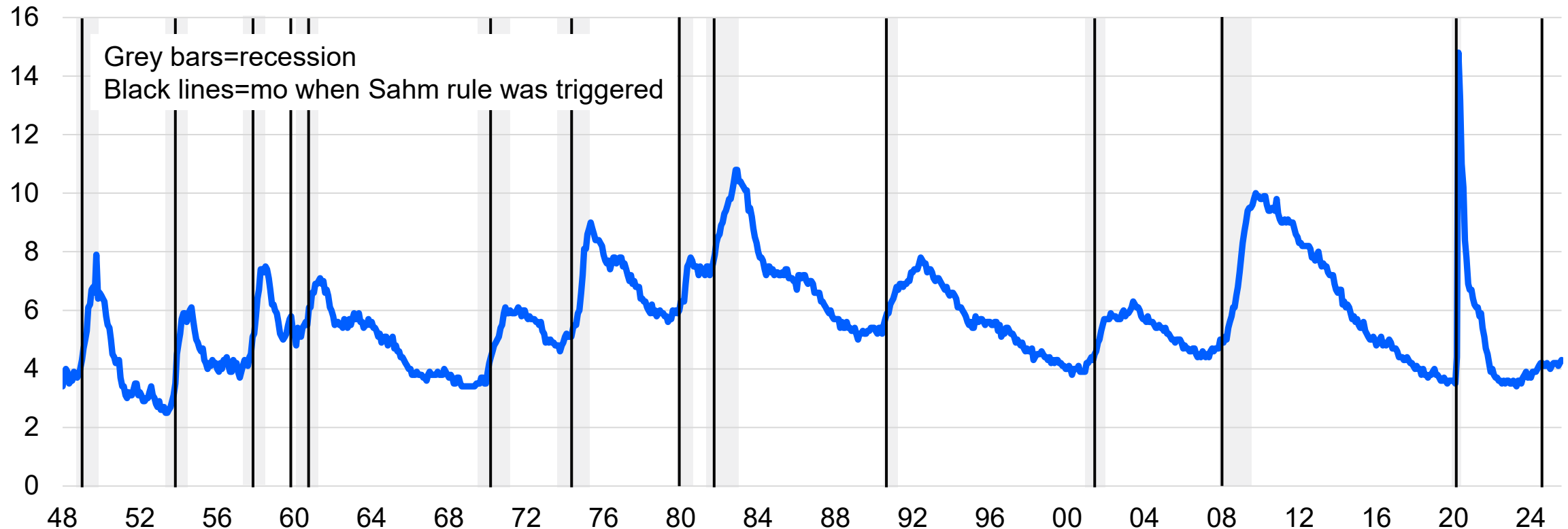
Leading Economic Index, 6-mo annualized change, %



Sources: The Conference Board, Moody's Analytics

Usually Reliable Sahm Rule Also Sends First False Signal

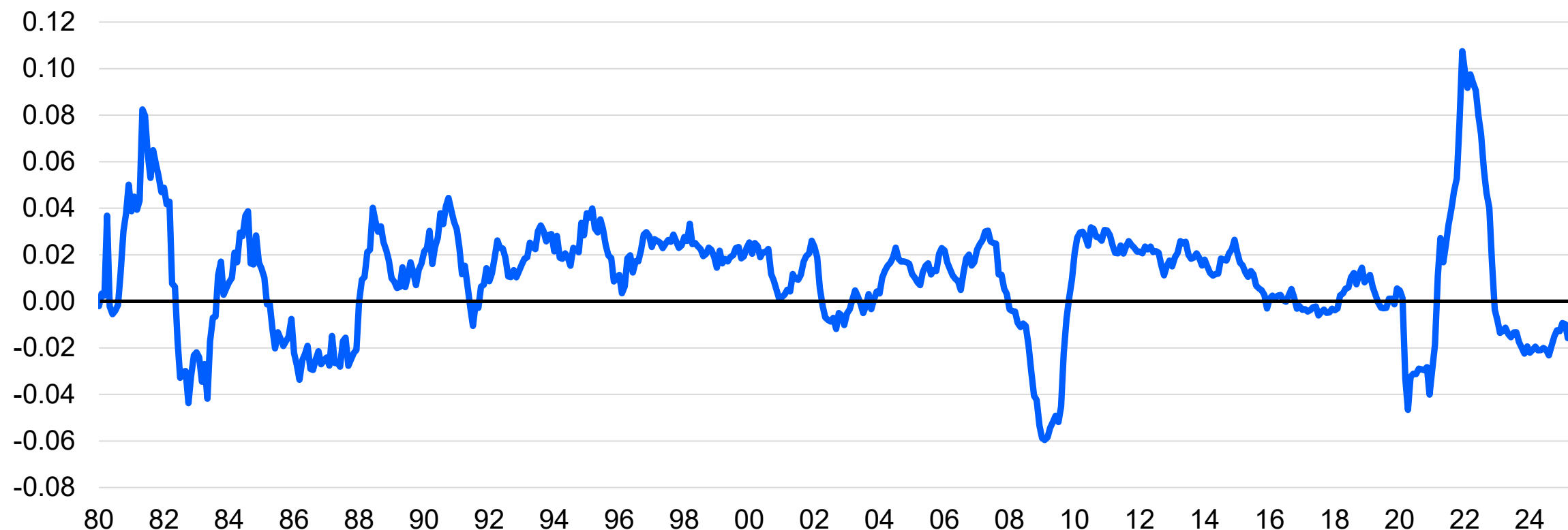
Unemployment rate, %



Sources: BLS, Moody's Analytics

Monthly Revisions to Employment Data Have Turned More Negative...

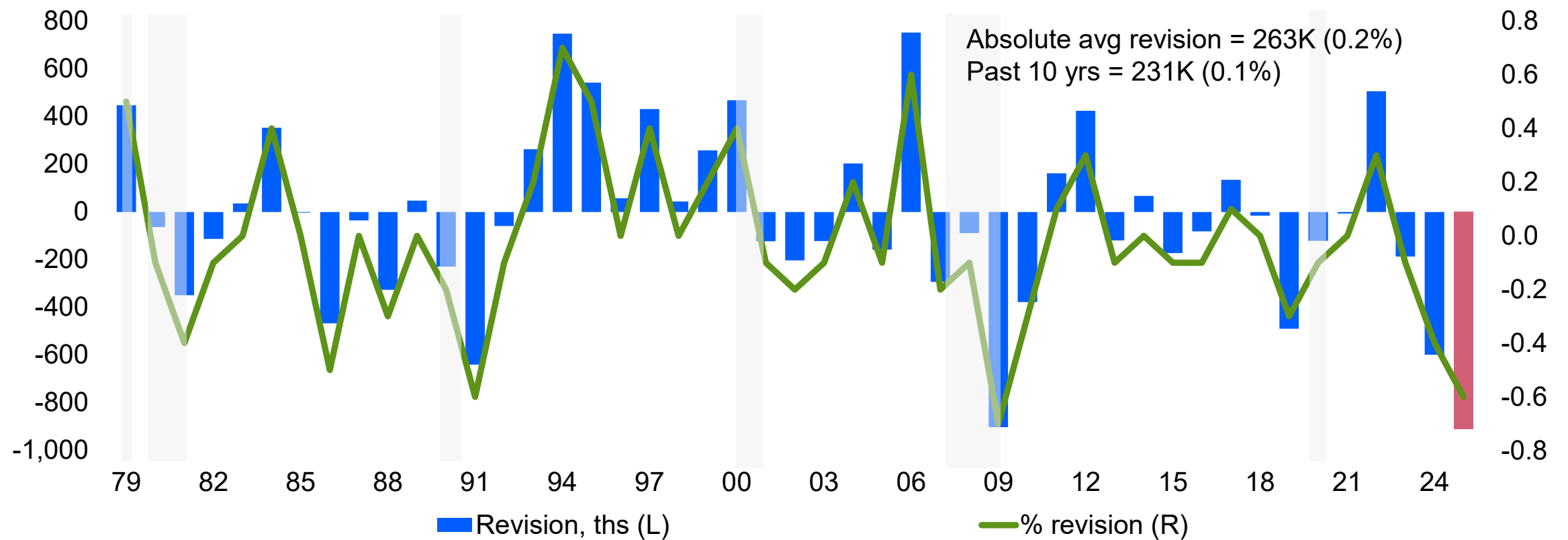
Revisions between 1st and 3rd estimate, % of total employment, 12-mo MA



Sources: BLS, Moody's Analytics

...And Larger Recent Benchmark Revisions Cloud the Real-Time Picture

Annual benchmark revision to payroll employment



Note: 2025 revision is preliminary

Sources: BLS, Moody's Analytics

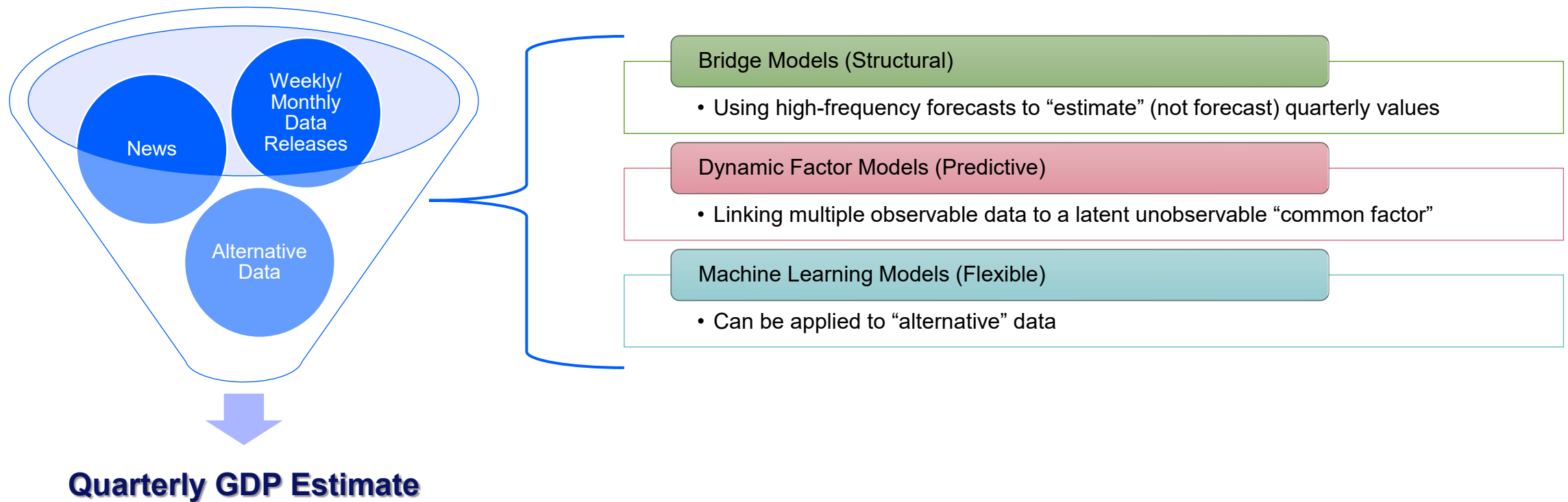
The background is a solid dark blue. Overlaid on this are several sets of thin, light blue wavy lines that create a sense of depth and movement, resembling a stylized topographical map or a series of overlapping waves. A large, white, serif number '2' is positioned on the left side of the image.

2

Nowcasting Models

What Is Nowcasting?

Real-time updating from incoming data of beliefs about this qtr, next qtr...and also last qtr



Source: Moody's Analytics

Mixed Frequency Dynamic Factor Model (MF/DFM) Structure

Quarterly GDP growth can be expressed as a weighted avg of 5 monthly (latent) output growth rates

- » Letting Q_1 denote GDP in the first quarter and names of months representing the level of activity in that month, we can approximate quarterly GDP as three times the geometric mean of monthly activity:

$$Q_1 = 3 * (Y_{March} * Y_{February} * Y_{January})^{\frac{1}{3}}$$

- » Taking logarithms on both sides renders:

$$\log(Q_1) = \log(3) + \frac{1}{3} * (\log(Y_{March}) + \log(Y_{February}) + \log(Y_{January}))$$

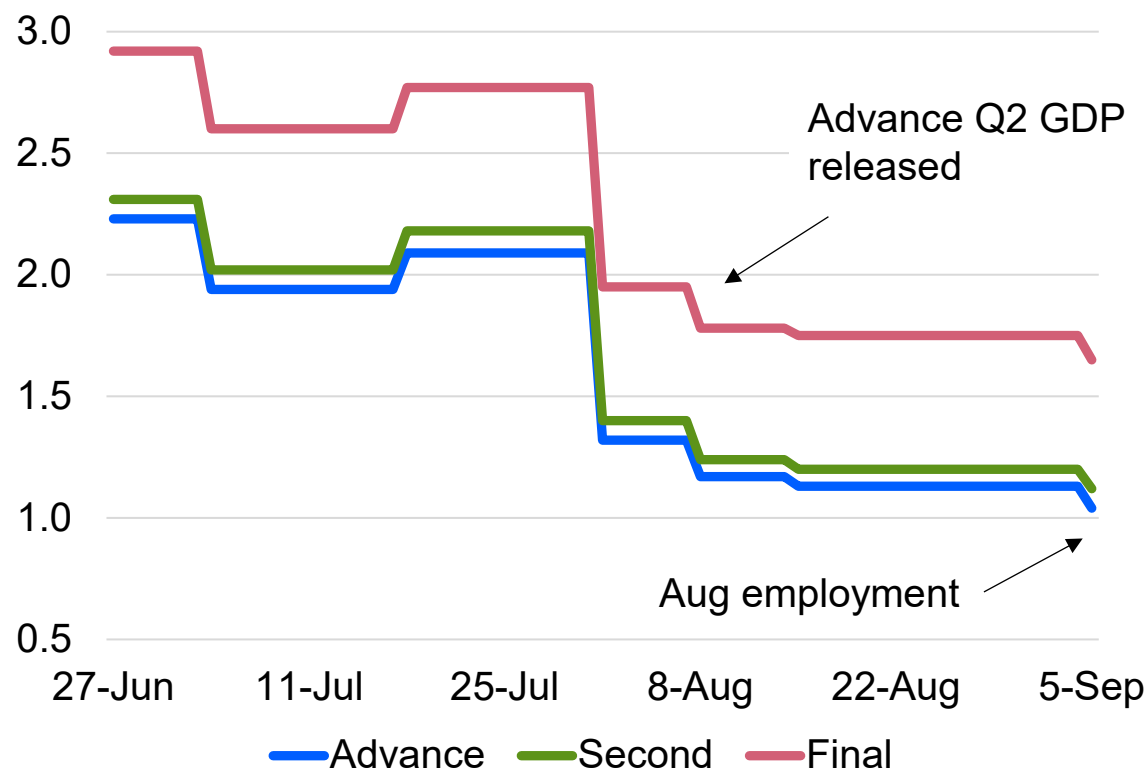
- » Applying the same logic to the fourth quarter of the previous year and subtracting, GDP growth from 2024 Q_4 and 2025 Q_1 can be expressed in terms of **a weighted average of monthly growth rates**:

$$\log(Q_1) - \log(Q_4) = \frac{1}{3} * g_{Mar} + \frac{2}{3} * g_{Feb} + g_{Jan} + \frac{2}{3} * g_{Dec} + \frac{1}{3} * g_{Nov}$$

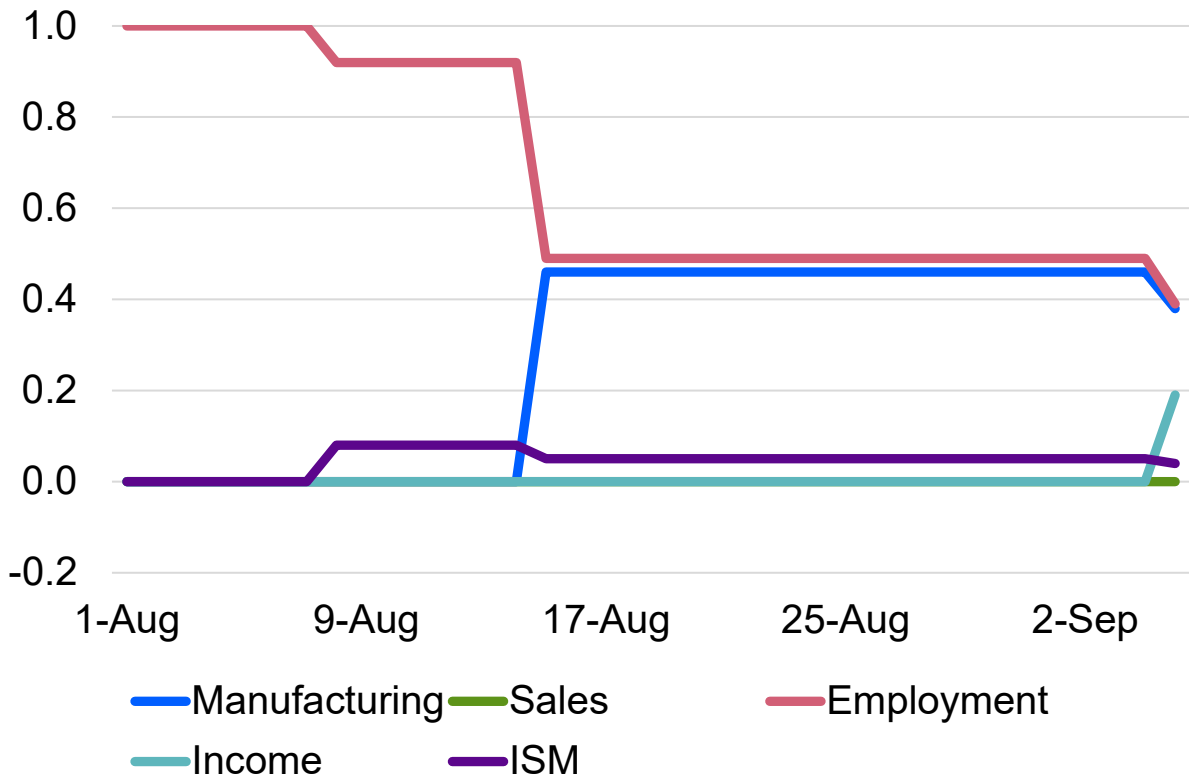
Source: Moody's Analytics

Diminished Expectations

Nowcast, U.S. 25Q3 GDP growth, %, annualized



U.S. nowcast indicator weights, 0 to 1



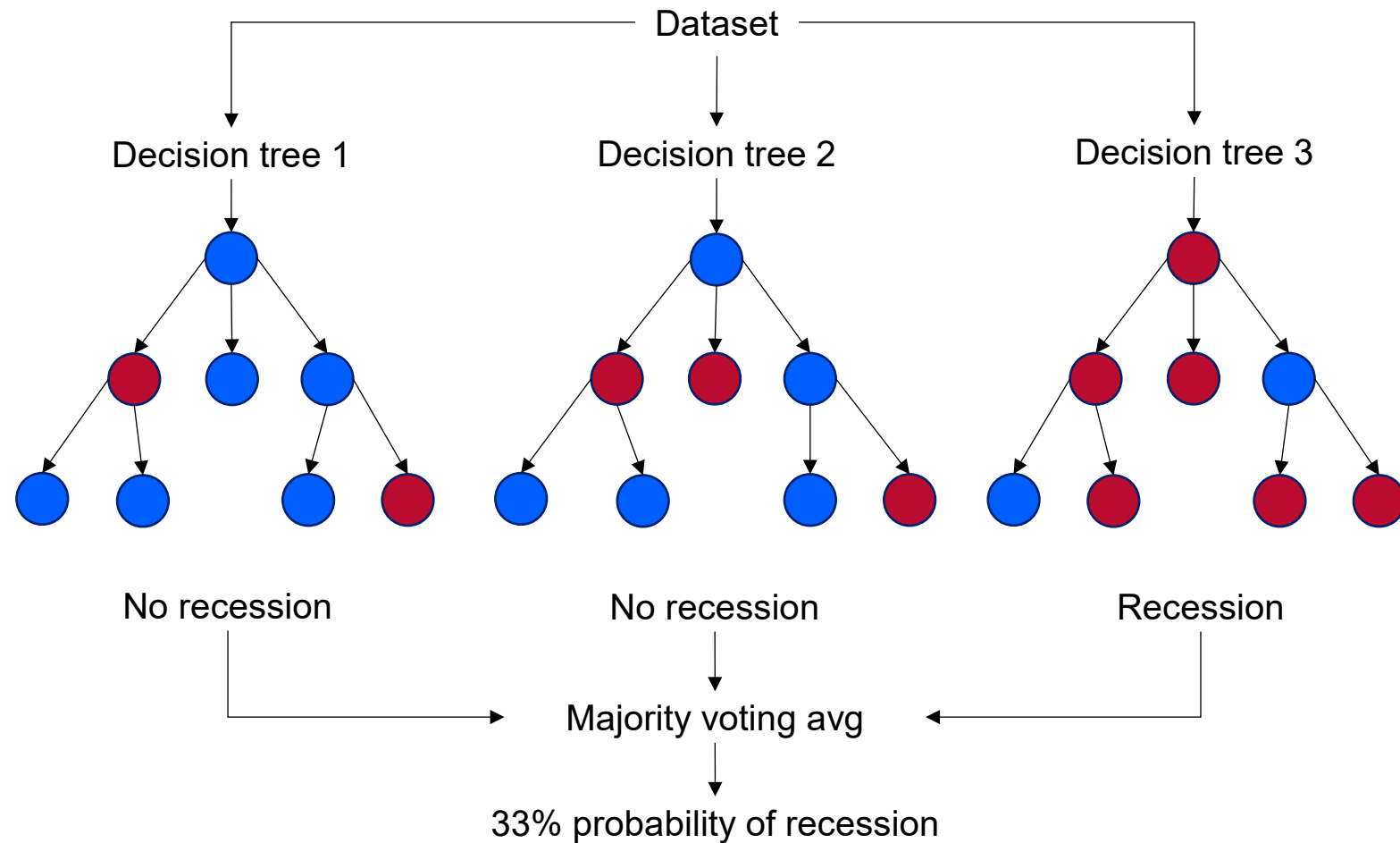
Source: Moody's Analytics

The background of the slide is a dark blue color. It features abstract, wavy, light blue lines that create a sense of movement and depth. These lines are most prominent on the left side, where they form a large, flowing shape that resembles a stylized '3' or a series of overlapping waves. On the right side, there are smaller, more vertical wavy lines that also contribute to the overall abstract design.

3

Measuring Recession Risk

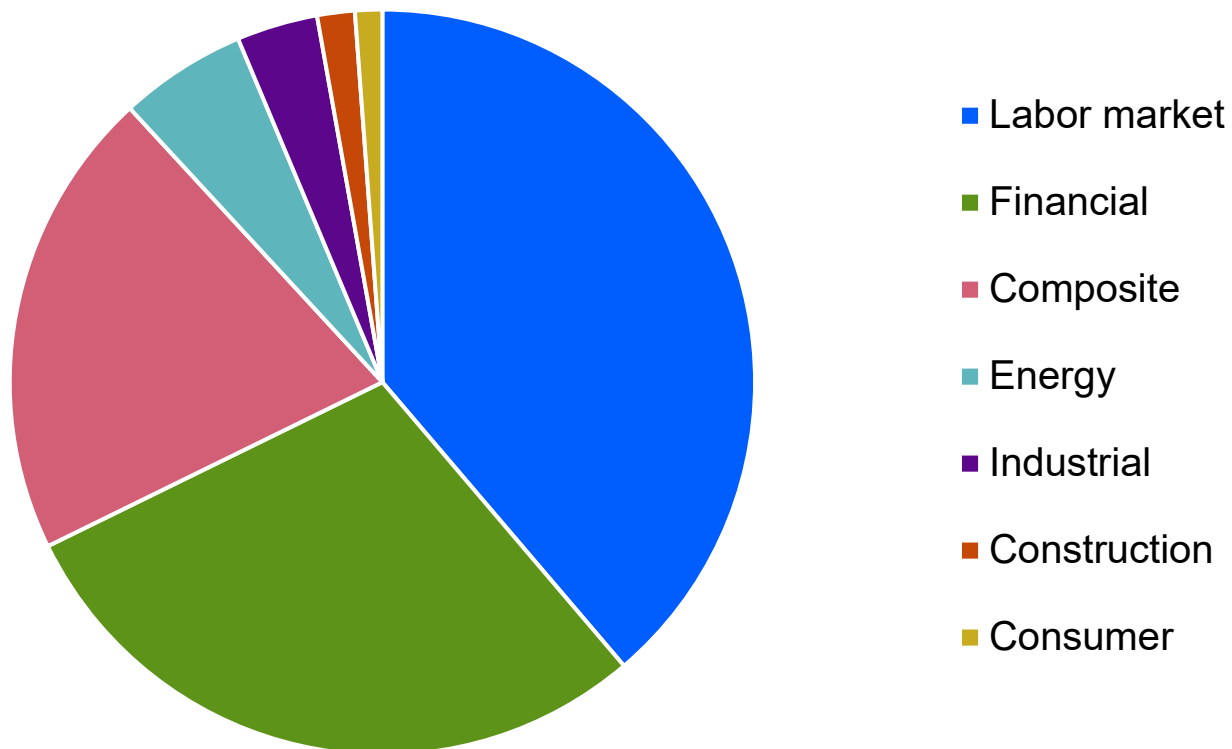
Model Architecture



Source: Moody's Analytics

Labor and Financial Variables Have Outsize Predictive Power

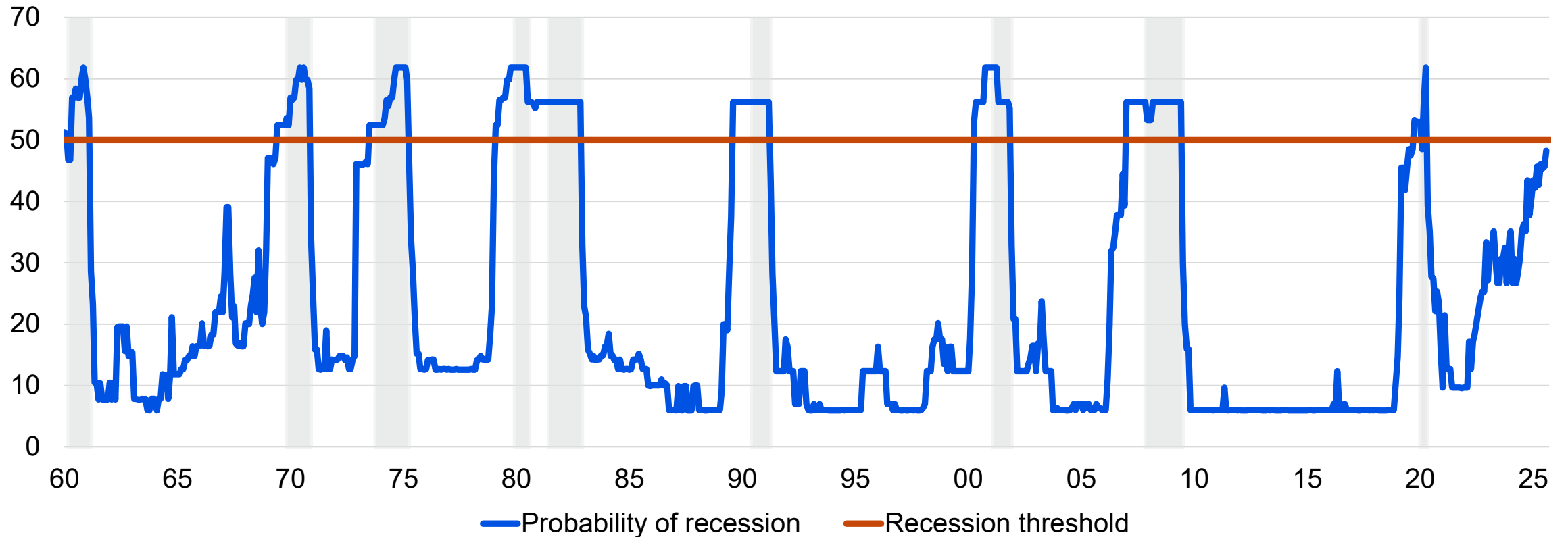
Model importance share by variable category, %



Source: Moody's Analytics

Recession Odds Mounting

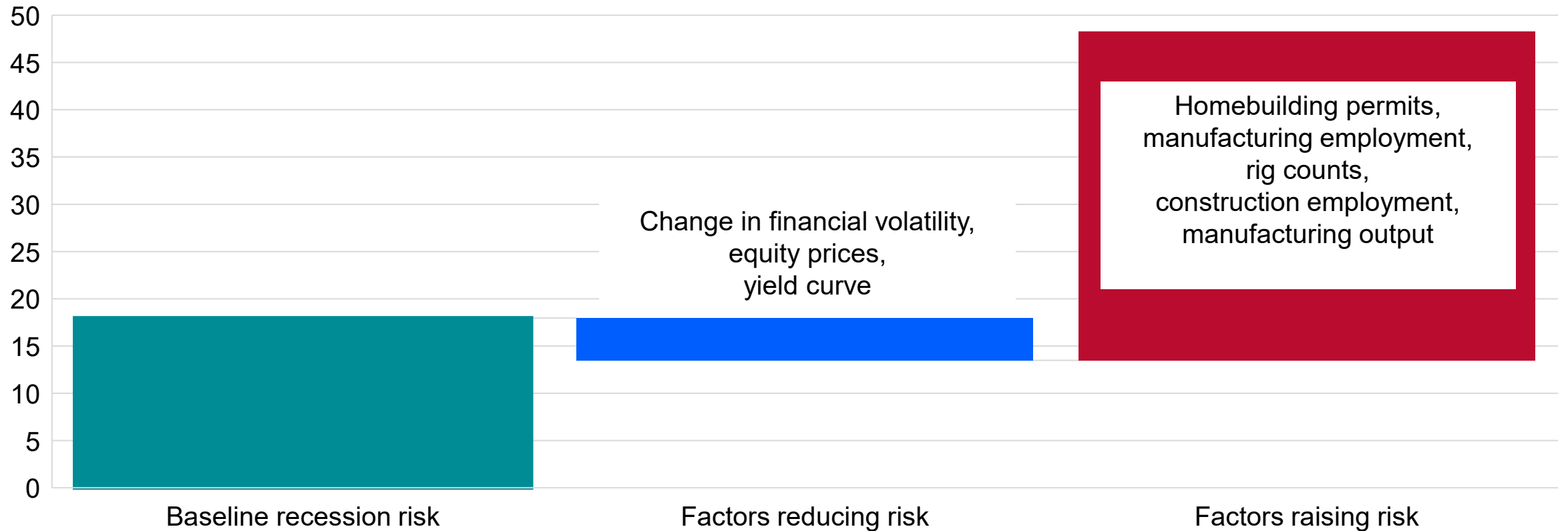
Estimated probability of recession in next 12 mo, %



Source: Moody's Analytics

Recession Odds Mounting

Estimated probability of recession in next 12 mo, %



Source: Moody's Analytics

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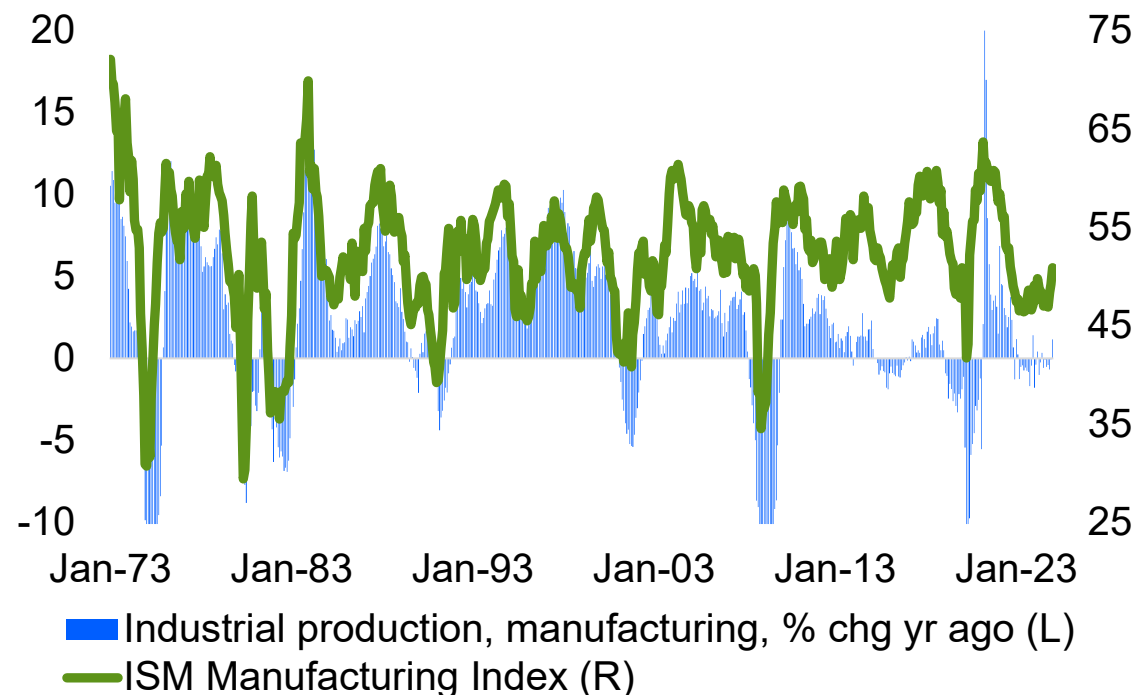
The background is a solid dark blue color. It features two abstract, wavy line patterns in a lighter blue shade. One pattern is on the left side, consisting of many overlapping, curved lines that create a sense of depth and movement. Another similar pattern is on the right side, also with overlapping curved lines. The overall effect is modern and artistic.

Appendix

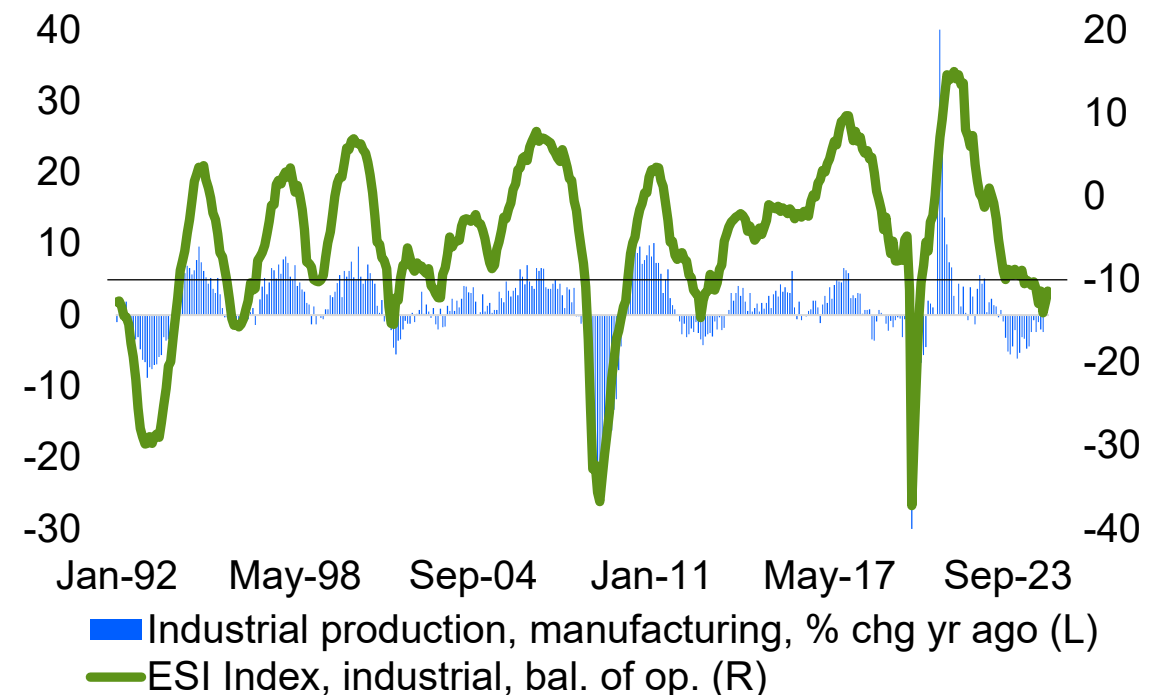
What Monthly Data Should We Incorporate in our MF/DFM?

Hard vs. soft indicators? Many variables or just a few?

U.S. industrial production vs. ISM Manufacturing Index



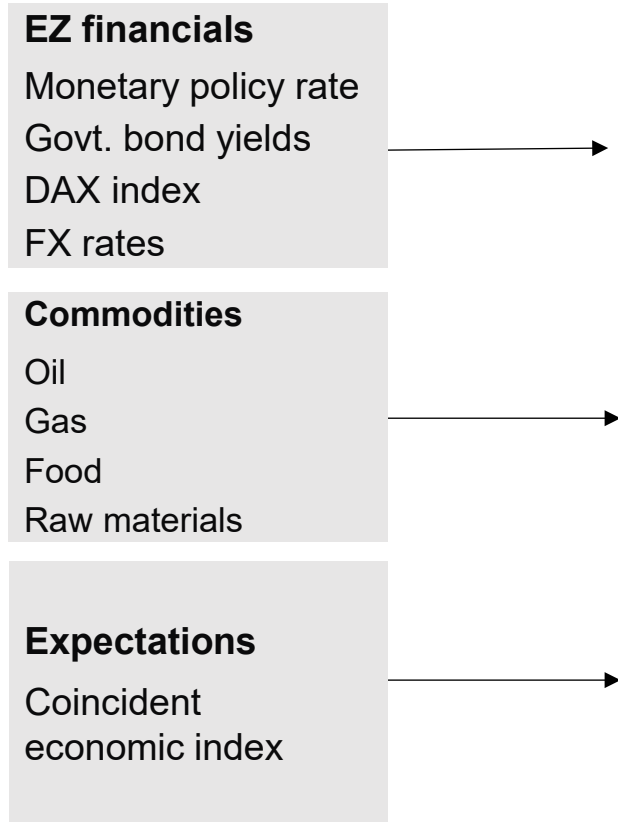
Euro zone industrial production vs. ESI Index



Sources: ISM, FRB, Eurostat, Moody's Analytics

Bridge Model Structure

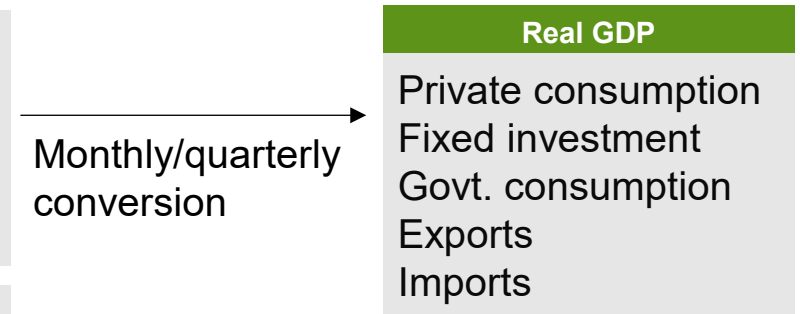
Forecast out monthly exogenous drivers



Monthly forecasts for key sectors



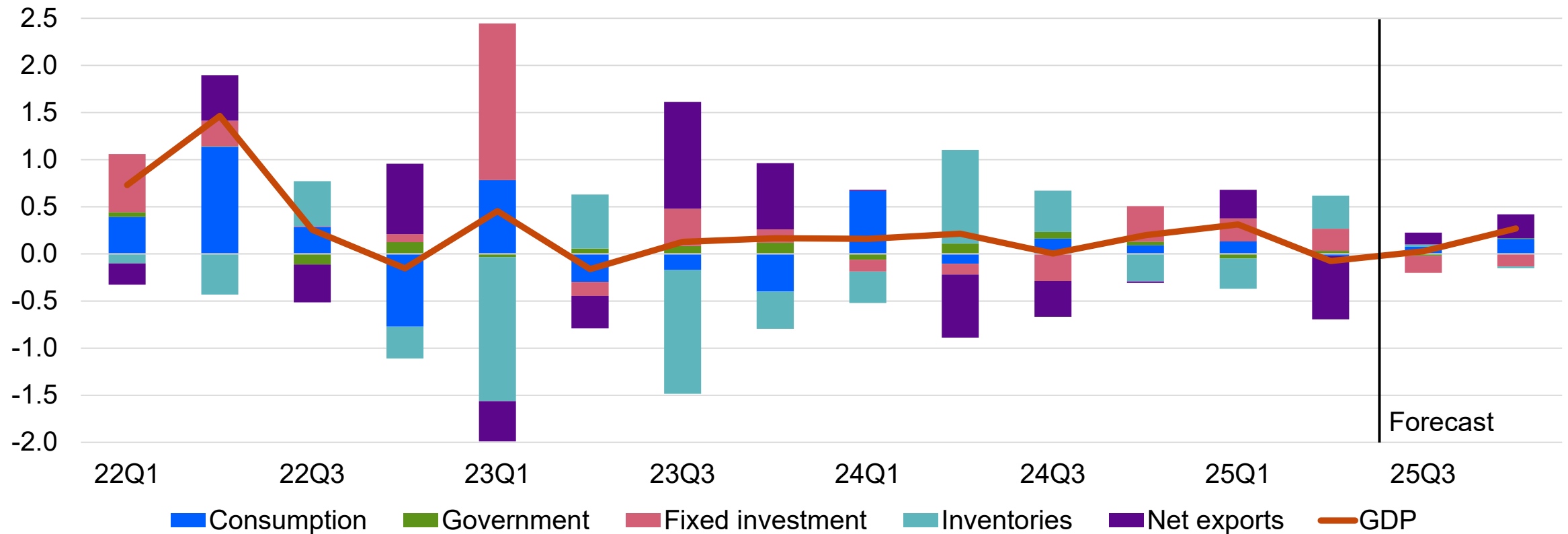
Quarterly GDP & components



Source: Moody's Analytics

Bridge Model Nowcasts Are Able to Dig Into GDP by Component

Italy real GDP, % change



Sources: ISTAT, Moody's Analytics

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