

We Mean Business Cycle

The Implications for Asset and Sector Allocation

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Key Takeaways

- **It is hard, but nonetheless critical, to know in real-time where we are in the business cycle. In our newly developed business cycle model, we adopt a probabilistic approach to help inform our view on the business cycle.**
- **The key challenge arises from the inherent unpredictability of macroeconomic data, but we believe that assigning probabilities is particularly useful when the macro data sends conflicting signals, as it has recently.**
- **Based on the model, we estimate there is a 55% probability that the US economy is in an Expansion phase and a 45% probability it is in a Slowdown.**
- **With respect to asset allocation, the business cycle model points to potentially muted but still positive performance for risky assets (equity and credit), combined with still-robust return expectations for government bonds.**
- **Below the asset class level, given where we are in the cycle, the model suggests that cyclical sectors may not offer adequate returns for their higher betas.**

Knowing where we are in the business cycle is challenging but critical

The business cycle has a strong influence on asset returns. Despite its significance, it is hard to identify the current phase of the cycle in real time. One issue may be information overload. There are a large number of time series: for the US, the Federal Reserve Bank of St. Louis' FRED database contains over 220,000 of them, excluding regional data. Yet the data is limited along the time dimension, with history often being too short for reliable analysis. Another challenge is that the economy changes structurally and is multidimensional. In other words, the business cycle is complex: it can be seen from the point of view of level, growth, momentum and also spare capacity. There is supply and demand, and there are markets for goods, services and factors of production. Given the large number of time series, a limited data history and relatively small numbers of US recessions (only 12 in post-war history), it is unsurprising to frequently hear of a "leading indicator" that has supposedly never failed to predict a recession, mainly reflecting false accuracy.



Our business cycle model is based on a probabilistic approach

To analyze the business cycle, the Multi-Asset Investment Group has built a framework combining a variety of indicators, with the goal of producing a probability estimate of the cycle's current phase. The model attempts to cover both the uncertainty and the multidimensional nature of the economy.

We characterize the cycle as having four phases:

- 1. Crisis:** The most contractionary part of National Bureau of Economic Research (NBER) recessions, which is defined by negative growth, weak momentum and rising unemployment.
- 2. Recovery:** The sharp turnaround that typically follows a recession with very positive momentum but still spare capacity.
- 3. Expansion:** This is the core part of the business cycle, during which growth is positive, momentum stable and spare capacity slowly receding.
- 4. Slowdown:** A deterioration in the data, with weaker growth and negative momentum that can either precede a Crisis or bounce back to Expansion.

Some variables may take similar values in different phases, but it is the combination of variables that allow us to identify the phase of the business cycle (Exhibit 1).

Exhibit 1: Selected Business Cycle Model Variables

Variable	Type
Industrial production growth YoY	Growth
Housing growth YoY	Growth
ISM new orders – inventory 3mma	Growth – momentum
Change in growth of industrial production	Growth – momentum
Growth in NFP payroll YoY	Labor market
Change in unemployment rate YoY	Labor market
Change in NFP payroll growth	Labor market – momentum
Change in unemployment rate momentum	Labor market – momentum
Capacity utilization in manuf. vs trend	Spare capacity
Employment gap	Spare capacity
Change in capacity utilization in manuf.	Spare capacity – change
Change in employment gap	Spare capacity – change

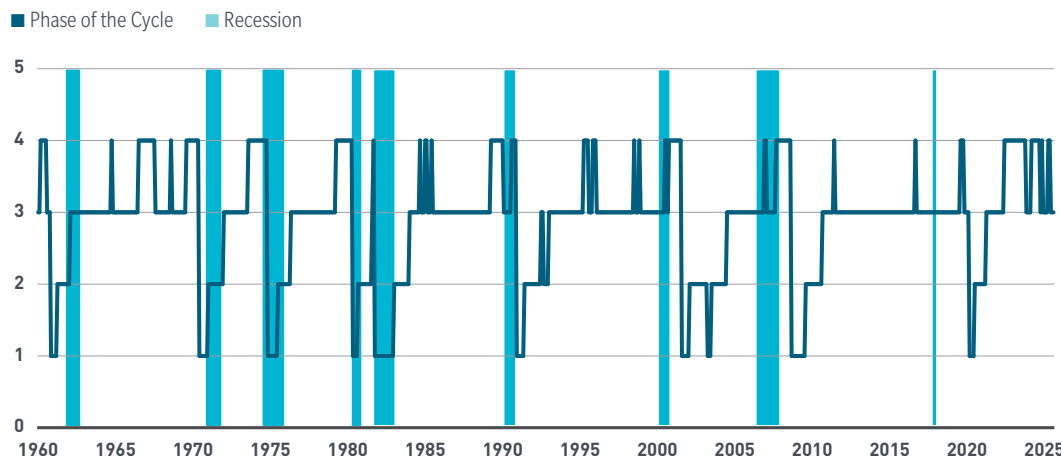
Source: Haver Analytics

Looking at the time the economy has spent in each phase of the business cycle since 1960, we find that the distribution of observations is unequal across phases, with Expansion being the default mode (63% of the time), while Crisis (7%) and Recovery (9%) both represent exceptional circumstances. Meanwhile Slowdown, to which we currently attribute a 45% probability, has displayed a frequency of 21%.

In Exhibit 2, we show the time series of the most likely phase evolution as identified by the business cycle model, alongside official NBER recessions. It is important to highlight that the dates of NBER recessions are not known in real time: on average, official pronouncements are made with a one-year delay. It is interesting to note that official recessions generally start during the model's Slowdown phase rather than during a Crisis phase, which highlights why Slowdown is a phase of major significance — despite its similarities to Expansion. Indeed, slowdowns play out as the transition between expanding and contracting economies.



Exhibit 2: Business Cycle Model Phases and NBER Recessions



Sources: Bloomberg, NBER, MFS research. Monthly data up to September 2025.

There is an inherent uncertainty about the phase of the business cycle because the macro data often sends conflicting signals.

We try to quantify this uncertainty by assigning probabilities to each underlying state. On average, we have observed that the signal tends to change every 10 months, which suggests that the model output offers some useful stability. With that in mind, it is particularly useful to disentangle Expansions from Slowdowns, as the difference between these two can often be marginal. Using a probabilistic approach is particularly useful in analyzing a mild slowdown situation like in 2016 or 2019 — neither of which led to a Crisis — as the model produces a signal that also captures the level of uncertainty.

While the output of our business cycle model helps identify the current phase of the cycle, it also contains forward-looking information.

This is because we include leading indicators in the model's construction, such as ISM new order versus inventory. In addition, because the phase's sequence follows a predictable pattern — from Crisis to Recovery to Expansion to Slowdown — and exhibits persistence, knowing where we are in the business cycle today carries information about where we are likely headed in the future.

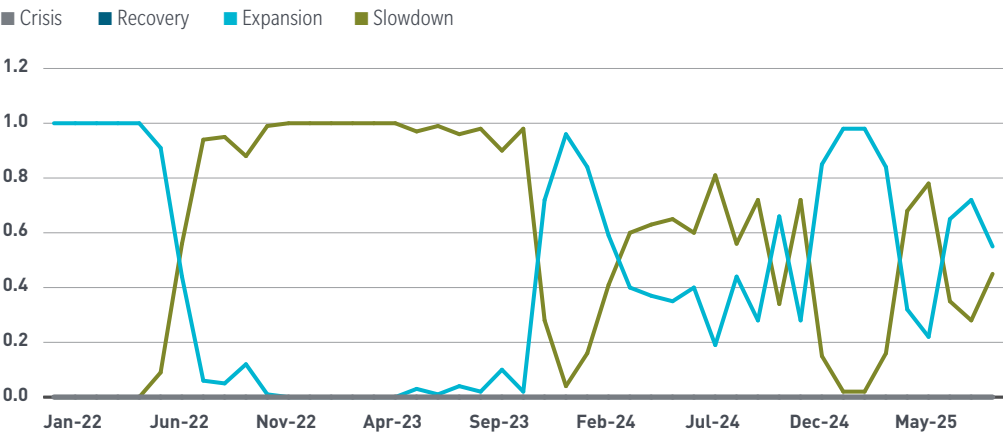
This uncertainty, as measured by the probability of being in a given phase, can influence the likelihood of the future transition. We found that when the probability of being in a Slowdown is high, we are more likely to stay in a Slowdown, or — with a lower probability — to transition to a Crisis.

Following the tightening of Fed monetary policy, the past few years have been exceptionally uncertain, mainly reflecting weak housing and manufacturing data, as well as slowly rising unemployment, but also buoyant private consumption. As a result, the model consistently assigned some probability to being both in Expansion and Slowdown — an unusual result.

After some improvement during the first three months of the year, we have seen renewed deterioration in the labour market, which has pushed our indicator back to displaying a 45% probability of a Slowdown (Exhibit 3). Over the longer term, we tend to be 95% confident of our phase assessment, with Expansion being the most frequent outcome.



Exhibit 3: Recent History of Business Cycle Phase Probabilities

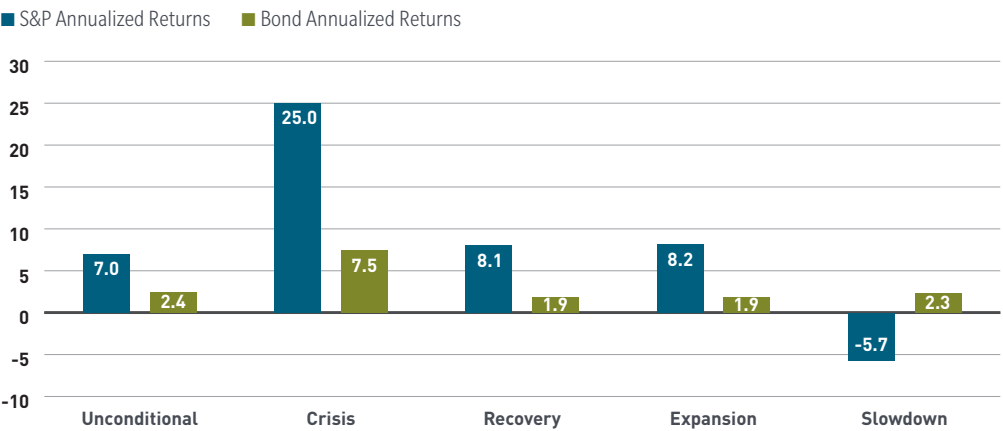


Sources: MFS. The Crisis and Recovery probability, which do not appear on the chart, also stands at zero throughout the period.

Business cycle phase implications for expected returns

Historically, US equities have delivered slightly above-average returns during Expansion phases but considerably below-average returns in Slowdown phases. Overall, Slowdown is the only phase that produces negative returns. While it might seem counterintuitive that Crisis generates the strongest returns, it is worth stressing that our business cycle model is based purely on macroeconomic data, whereas financial markets generally tend to be anticipatory. This is why negative returns are observed in Slowdown rather than in Crisis.

Exhibit 4: Annualized Real Returns Since 1960



Source: Haver Analytics, MFS Research. Returns are gross and in US dollars. S&P returns are represented by the S&P 500 Index. Bonds are represented by the 10-Year Treasury Note Constant Maturity Total Return Index.

Not only does the cycle influence average expected returns, but it also impacts the shape of the return distribution. We find that poor returns in Slowdown are driven by an adverse left tail that tends to capture the Slowdown episodes that do turn into Crises.

Away from equities, our conclusion is also consistent for credit, which shows a bias towards widening spreads during Slowdown phases.



Overall, government bond returns tend to be less sensitive to phases of the cycle, with fixed income being less cyclical as an asset class. Our current assessment is that there is a meaningful probability that the economy is in the Slowdown phase, which is consistent with a positive but weaker return than the unconditional return for equities.

The cycle indicator also carries information about the distribution of expected returns, not just the average. One way to summarize this information is to analyze annualized volatility by phase. Volatility is lowest when the economy is in Expansion. But we see a notable pick up in volatility when the data becomes more uncertain and we enter the Slowdown phase. While returns tend to be robust in crisis, this is also the phase that exhibits the highest volatility.

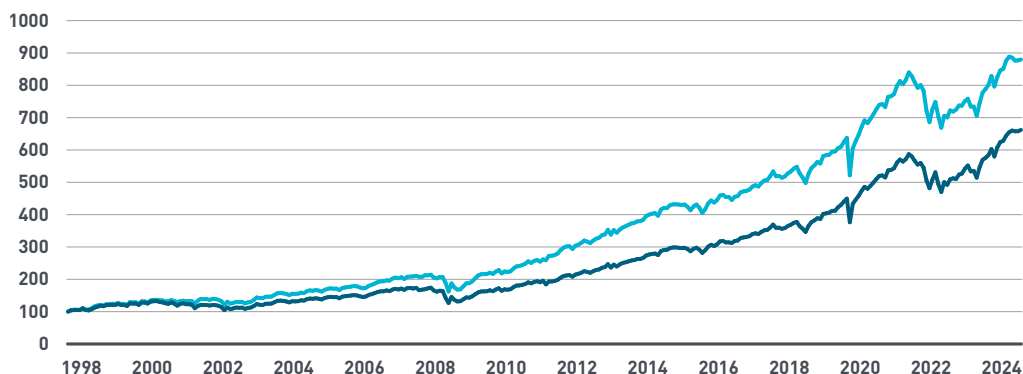
Asset Allocation Through the Business Cycle

We believe that our business cycle model produces an efficient indicator for asset allocation.

The model is part of the framework used by the Multi-Asset Investment Group to determine our stance on equities. To illustrate the usefulness of allocating between bonds and equities based on the business cycle indicator, we compared the performance of a 60/40 static portfolio with one that dynamically shifts allocations based on business cycle phase. Specifically, we increased the bond allocation in our Slowdown phase and increased the equity allocation in Crisis and Expansion, while making sure that over time, the portfolio weights would average 60/40. We ran that exercise with point-in-time data, re-estimating the cycle model on a monthly basis, but with data available at that time and considering the data publication lag. Since 1998, the model-based dynamic allocation portfolio would have generated 113 basis points excess return per annum over the static portfolio (8.4% vs. 7.3%), with a comparable overall weight to equity and volatility (around 10.7% annualized) (Exhibit 5).

Exhibit 5: Performance of Illustrative Static and Dynamically-Allocated Portfolios

■ Static 60/40 ■ Cycle Dynamic Allocation



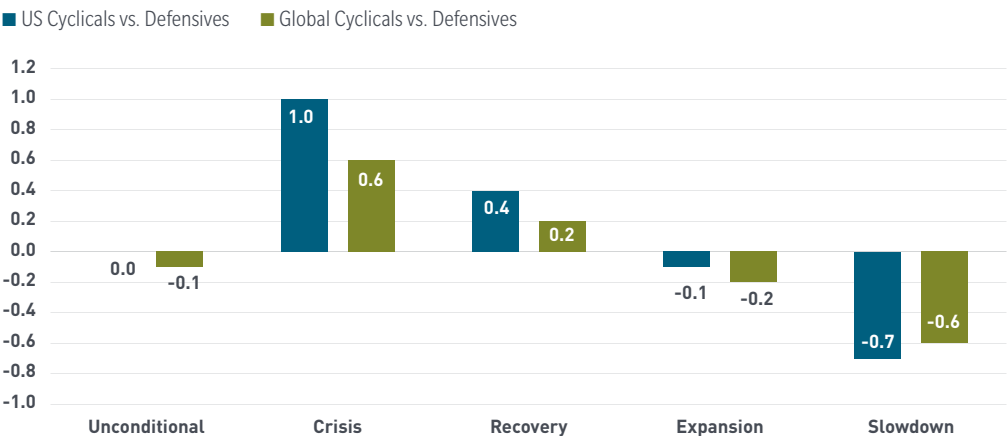
Source: Haver Analytics, ALFRED, MFS Research. Equities are represented by the S&P 500 Index. Bonds are represented by the 10-Year Treasury Note Constant Maturity Total Return Index. References to hypothetical portfolio value and performance are not promises or estimates of actual performance that may be realized by an investor, and should not be relied upon. The portfolio value projections are for illustrative purposes only and are not to be relied upon as advice, interpreted as a recommendation, or be guarantees of performance. The projections are based upon subjective estimates and assumptions that have yet to take place or may occur. For the Cycle Dynamic Allocation, shifts in asset class weightings occur when the model's signal changes in reference to the cycle model. Neither the 60/40 Portfolio or the Cycle Dynamic Allocation hold a cash position. The projections have limitations because they are not based on actual transactions, but are based on the models and data compiled by MFS. The results do not represent nor are indicative of actual results that may be achieved in the future. Individual investor performance may vary significantly. Hypothetical model represents data from February 1998 through January 2025.



Investment Implications for Sector Allocation

Beyond the index level, the indicator can also be used for allocation decisions between cyclicals and defensives. The model’s data suggest that cyclicals are only an attractive investment proposition in the Crisis and Recovery phases of the business cycle. Meanwhile, they broadly match the return of defensives in Expansions and tend to underperform in Slowdowns.

Exhibit 6: Relative Performance of Cyclicals vs. Defensives Conditional on Phase



Source: Datastream, MFS Research. We constructed our cyclical vs. defensives time series by aggregating Datastream sub-sector indices.

Overall, we believe that our newly-developed business cycle model can be a useful tool not only to identify where we are in the business cycle, but also to help inform our view on what the next phase of the business cycle will likely be. In addition, the output of our business cycle model can help formulate both asset allocation and sector allocation views. Based on the model, we estimate with a 45% probability that the US economy is currently in the Slowdown phase. This suggests that risky assets may well experience only muted returns in the period ahead. ▲

¹ From a technical perspective, the method we use is an unsupervised learning model called a Gaussian Mixture Model (GMM), which will make sense of the data at any point as being drawn from latent unobserved states (*i.e.*, our four phases). The algorithm will estimate both the characteristics of these unobserved states, most notably the variable values, as well as the probability of each month belonging to the four phases.



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