

MOODY'S

Economic Scenario Update

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May 2025

Agenda

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1

Macroeconomic Forecasting

2

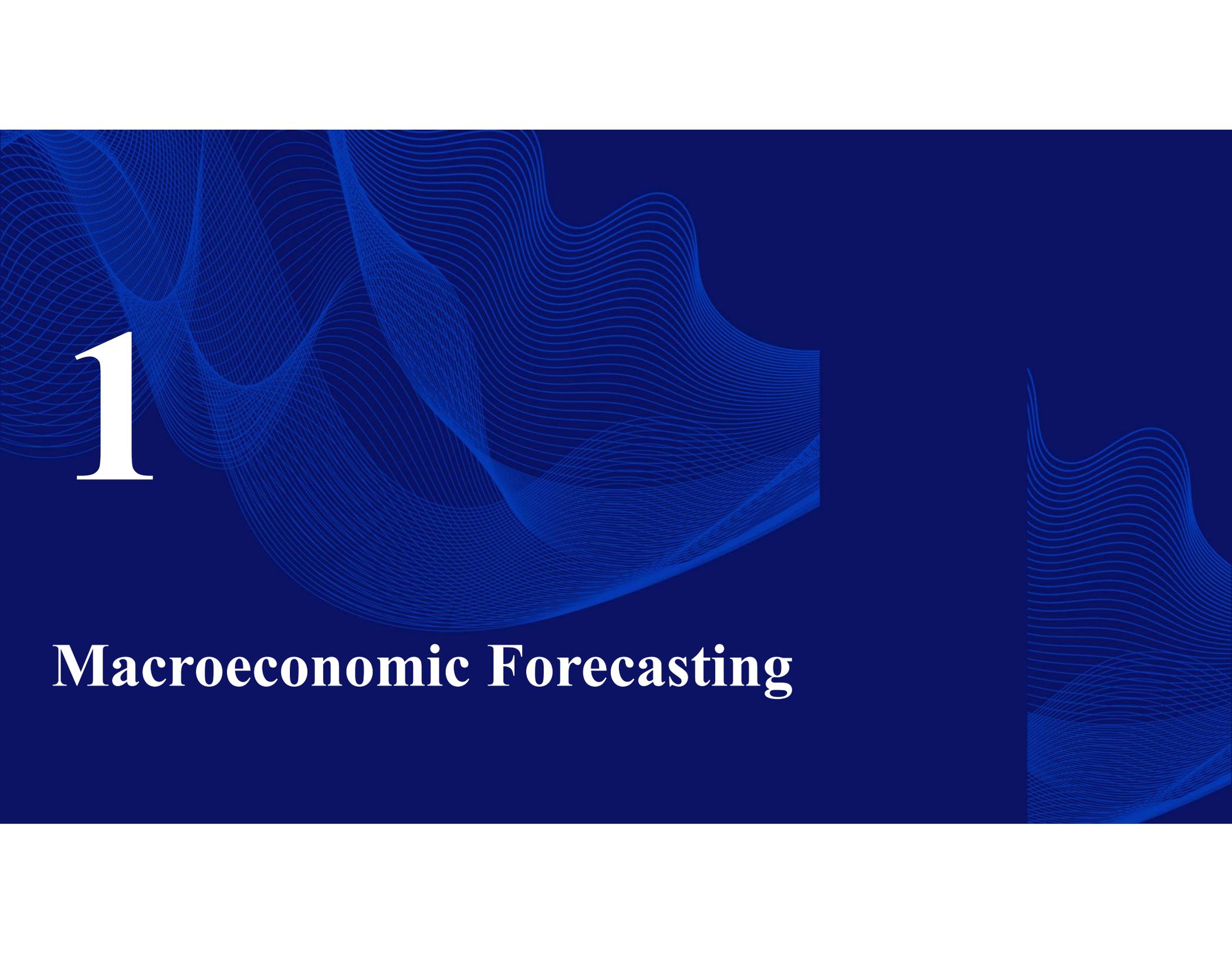
Baseline Outlook Evolution

3

Alternative Macroeconomic Scenarios

4

Scenario Planning Building Blocks

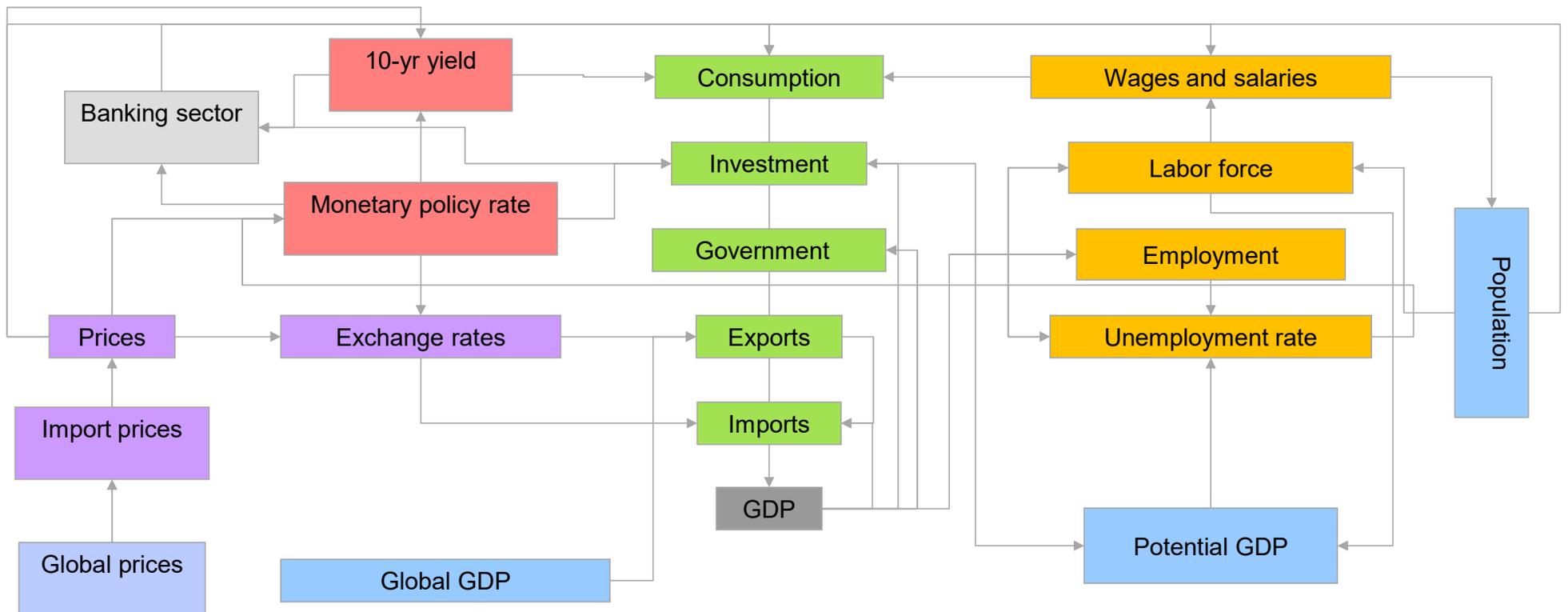
The background is a solid dark blue color. It features several layers of thin, light blue wavy lines that create a sense of depth and movement. These lines are most prominent on the left side and fade towards the right. The overall effect is a modern, technical aesthetic.

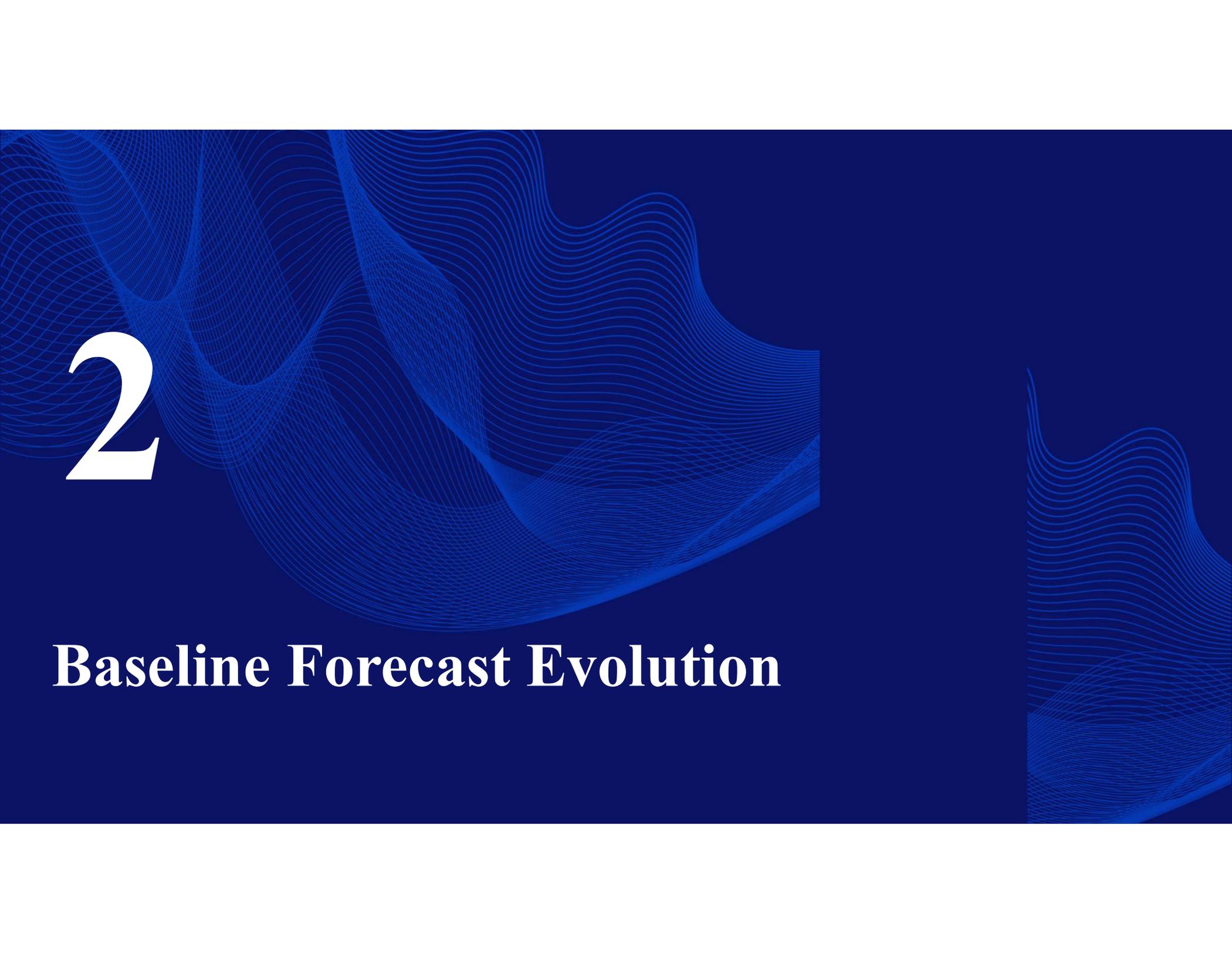
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Macroeconomic Forecasting

Structural Forecast Model Methodology

- Approach used by use by Federal Reserve, IMF, Central Banks



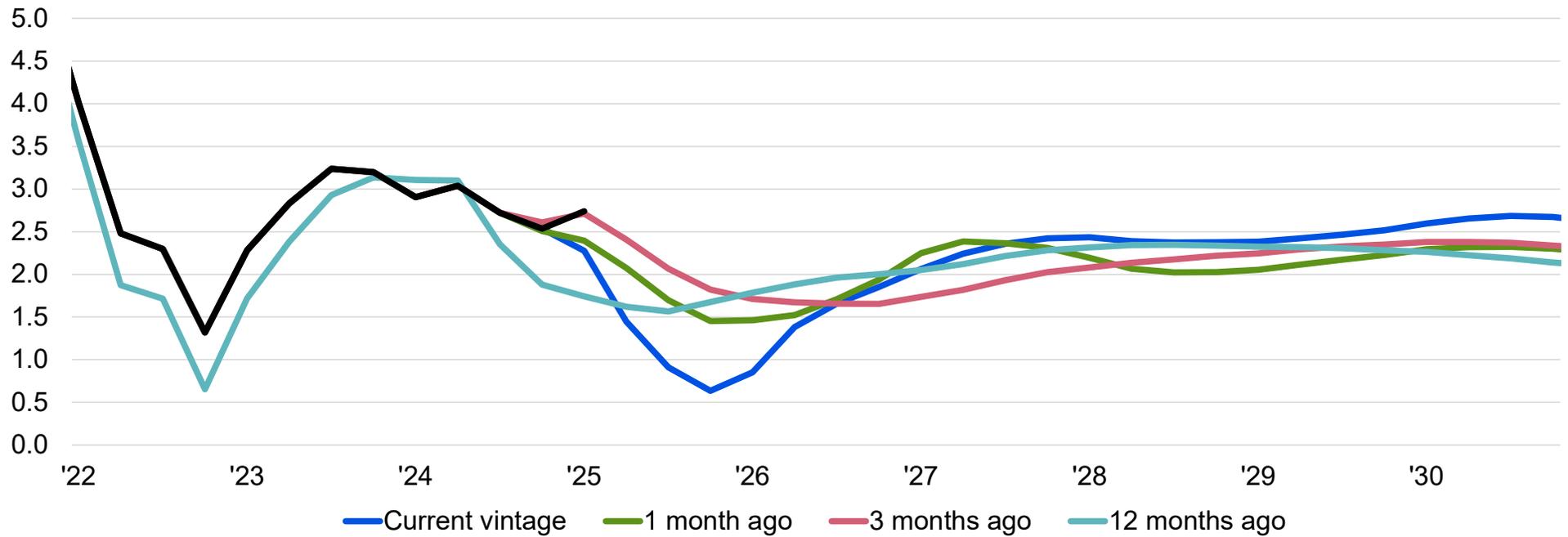
The background is a dark blue gradient with intricate, white, wavy line patterns that resemble a complex signal or data visualization. A large, white, serif number '2' is positioned on the left side of the image.

2

Baseline Forecast Evolution

GDP Outlook Weakens

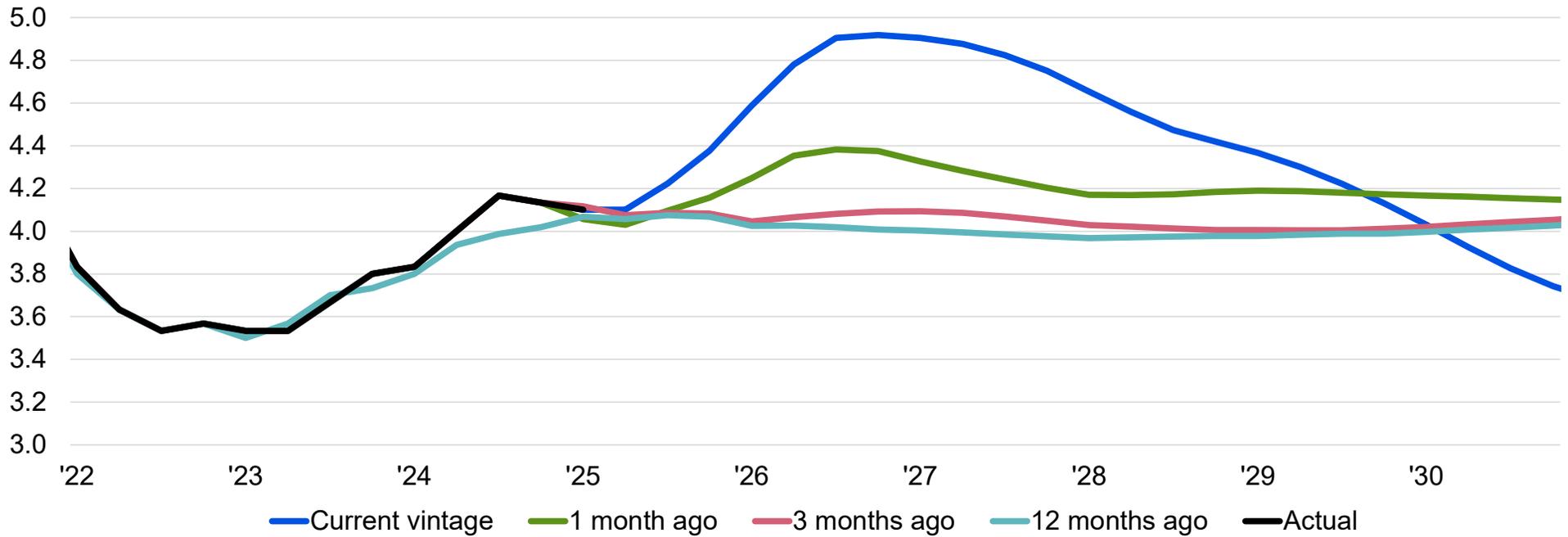
Inflation-adjusted gross domestic product, % year ago change



Sources: BLS, Moody's Analytics

Unemployment Expected to Rise Rapidly

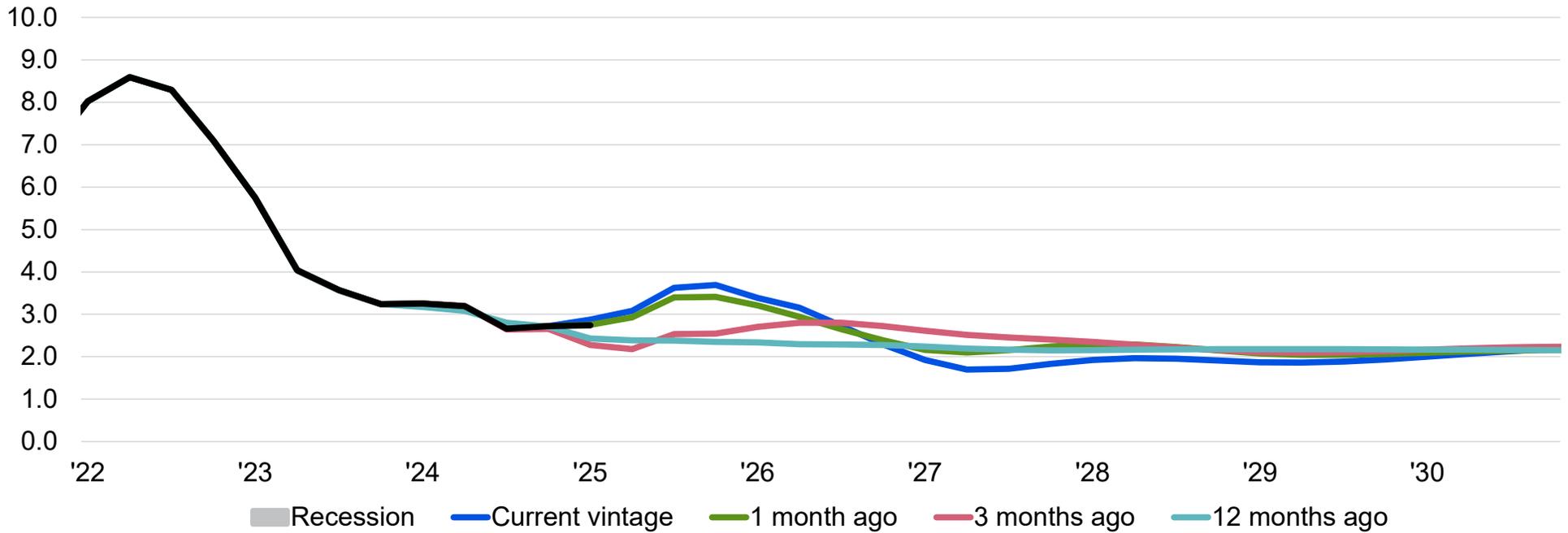
Unemployment rate, %



Sources: BLS, Moody's Analytics

Inflation Remains Persistent

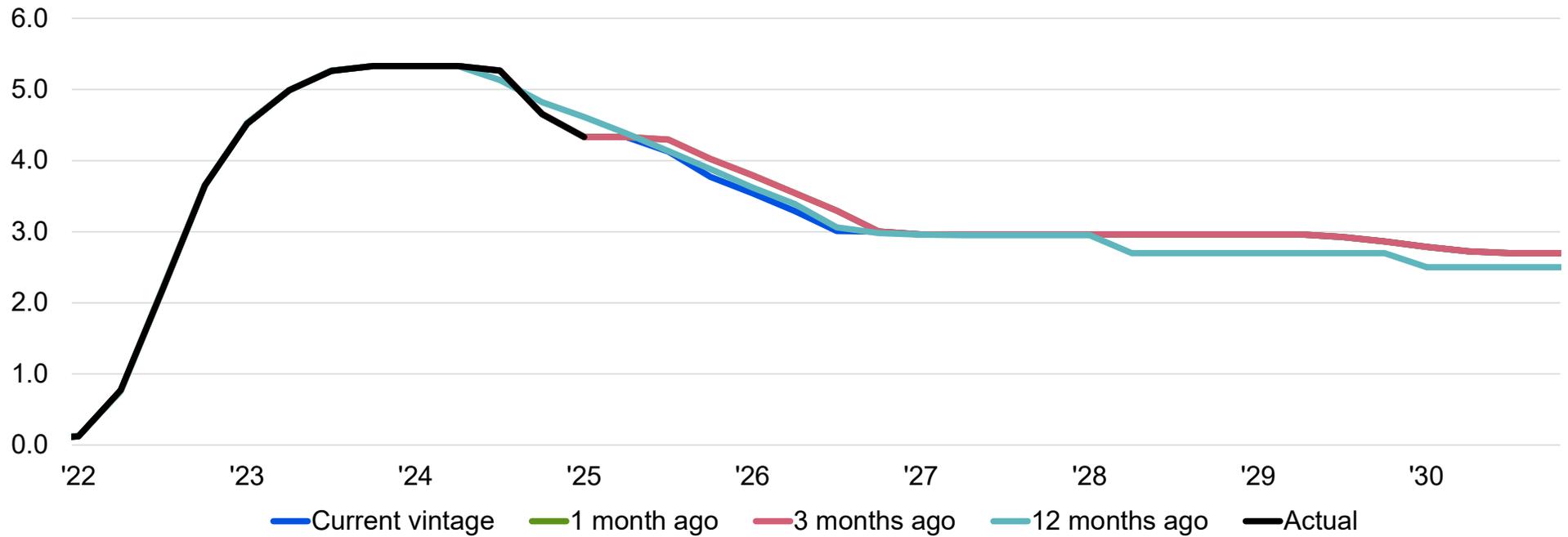
Consumer Price Index, % year ago change



Sources: BLS, Moody's Analytics

Fed Expected to Cut 3 times in 2025

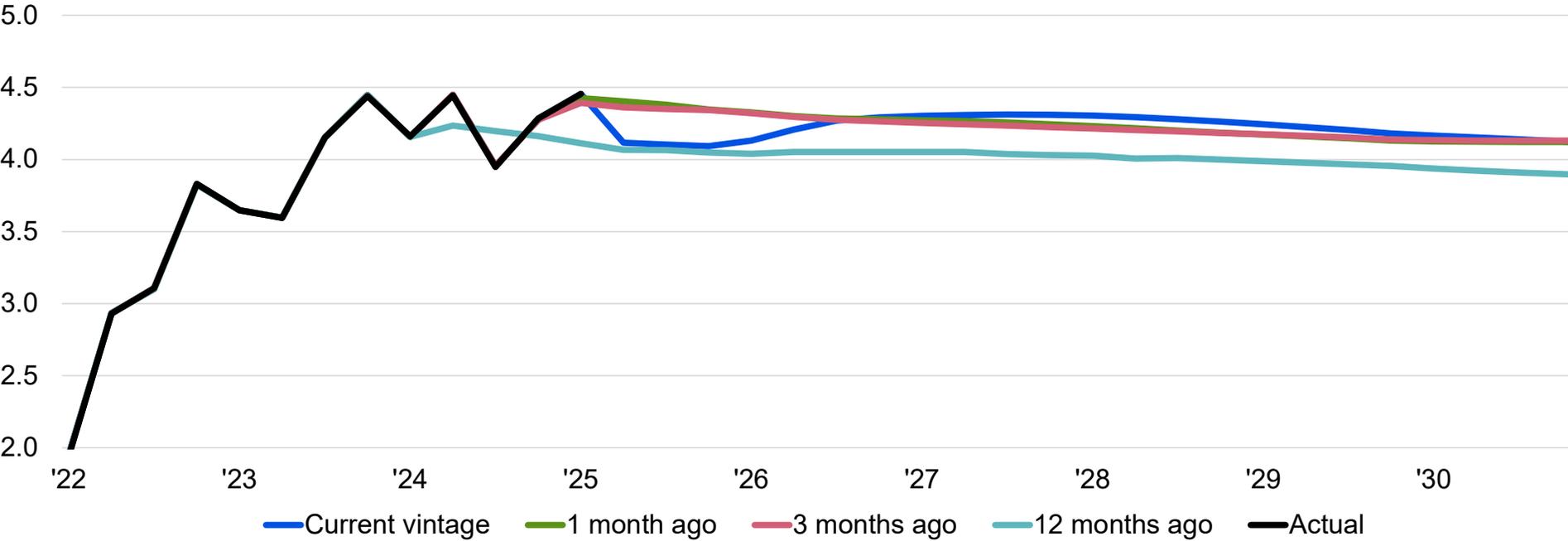
Federal funds rate, %



Sources: Federal Reserve, Moody's Analytics

10-year Treasury Rate to Hover Between 4.0 and 4.5%

Yield on 10-year Treasury bonds, %



Sources: Federal Reserve, Moody's Analytics

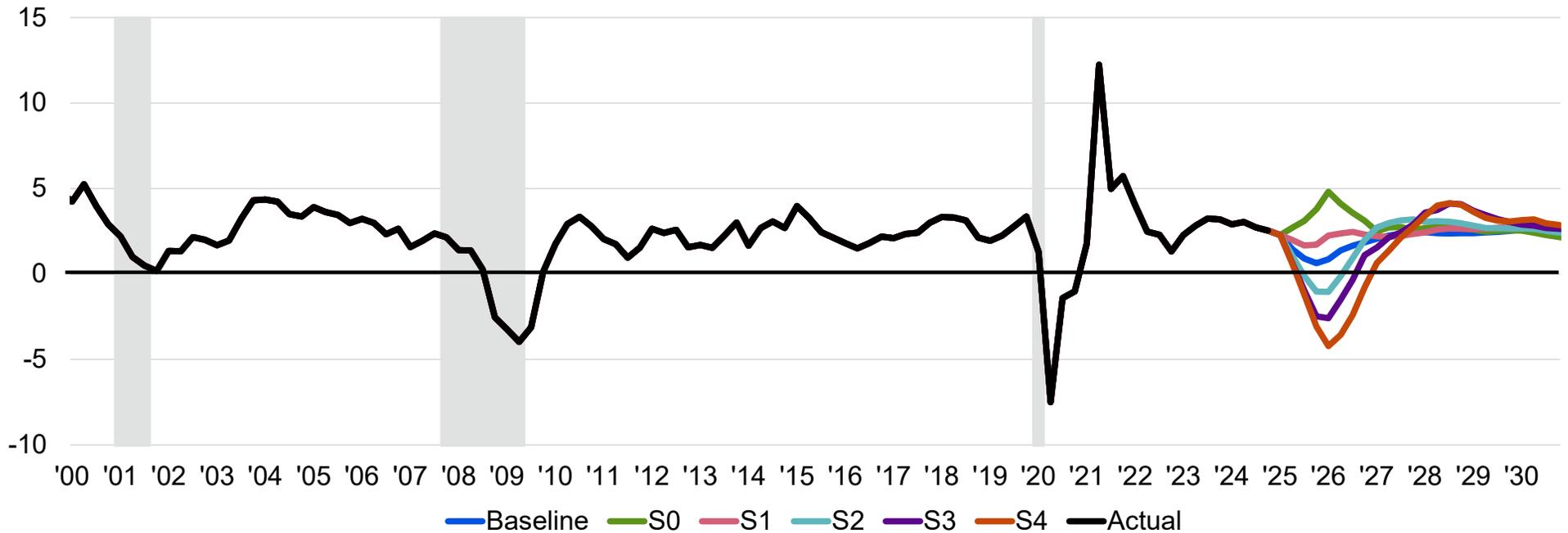
The background is a solid dark blue color. Overlaid on this are several layers of thin, light blue lines that form a complex, wavy pattern. These lines create a sense of depth and movement, resembling a stylized landscape or a series of overlapping waves. The pattern is most prominent on the left side and fades slightly towards the right.

3

Alternative Scenarios

Alternative Scenarios Capture Upside and Downside Risks

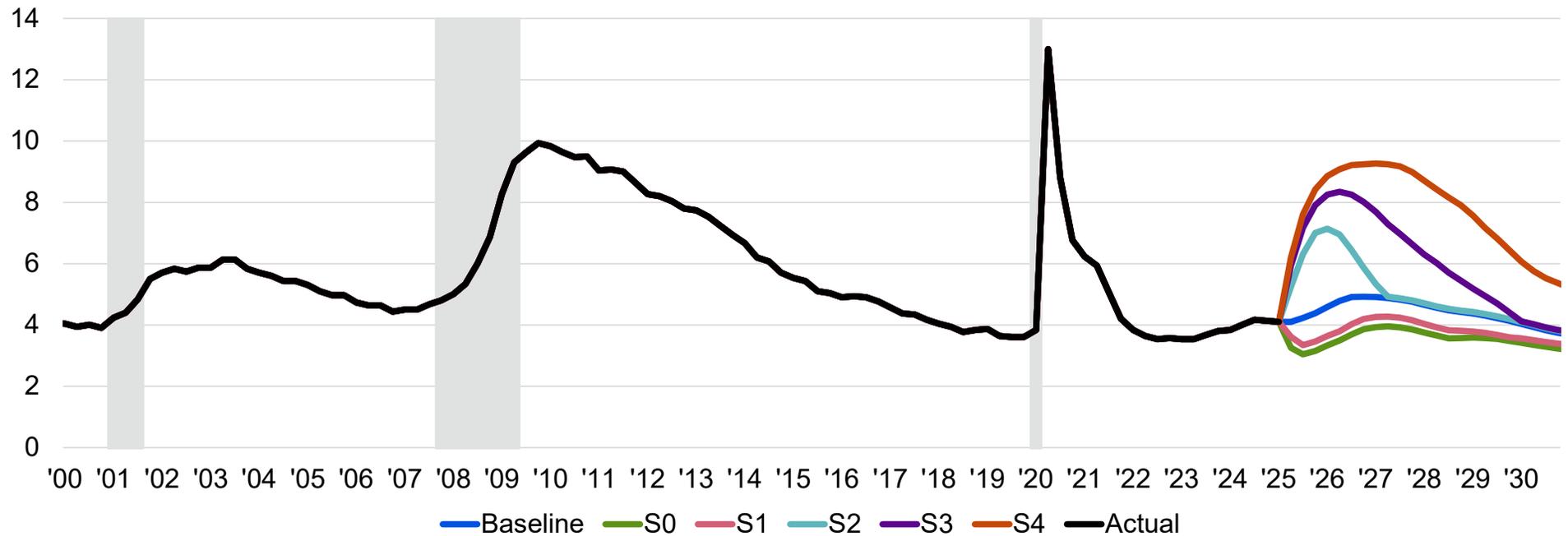
Inflation-adjusted gross domestic product, % year ago change



Sources: BEA, Moody's Analytics

Alternative Scenarios Capture Upside and Downside Risks

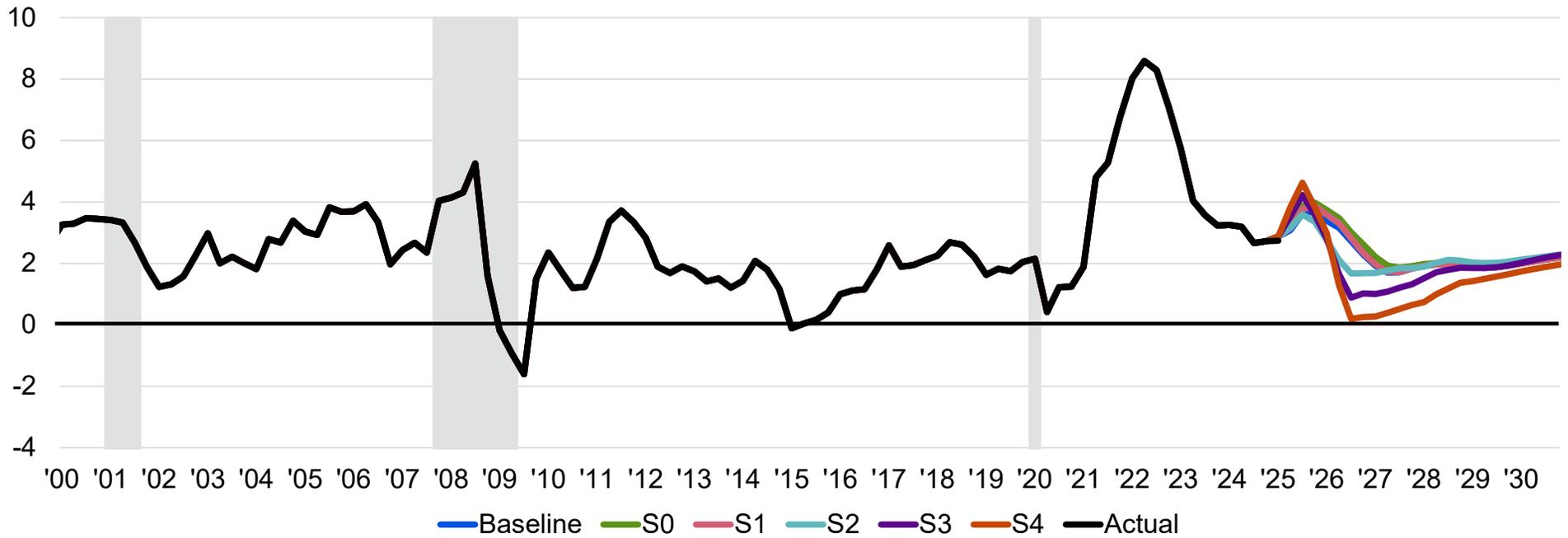
Unemployment rate, %



Sources: BLS, Moody's Analytics

Alternative Scenarios Capture Upside and Downside Risks

Consumer Price Index, % year ago change



Sources: BLS, Moody's Analytics

The background is a solid dark blue color. 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 depth and movement, resembling a stylized landscape or a network of connections. The pattern is most prominent on the left side and fades slightly towards the right.

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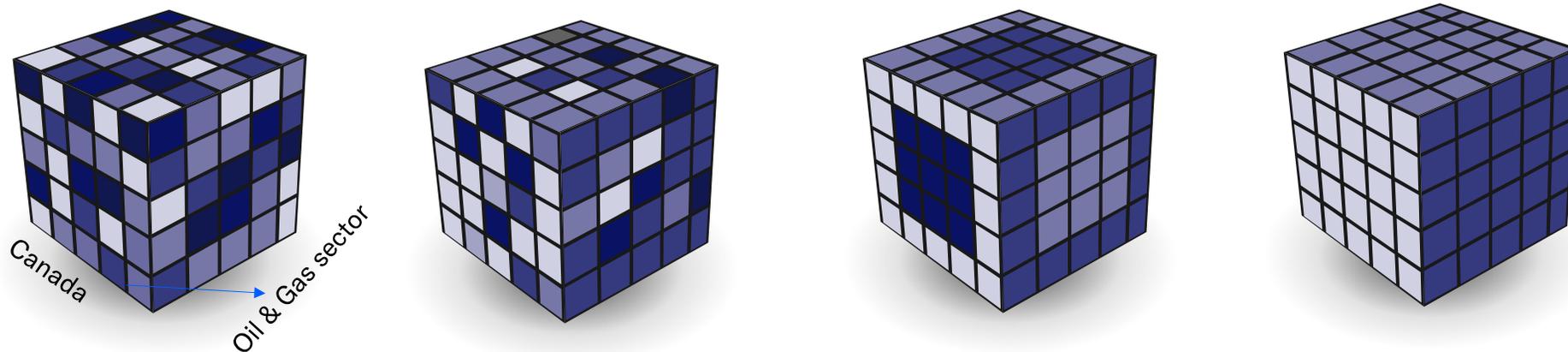
Scenario Planning Building Blocks

Macroeconomics

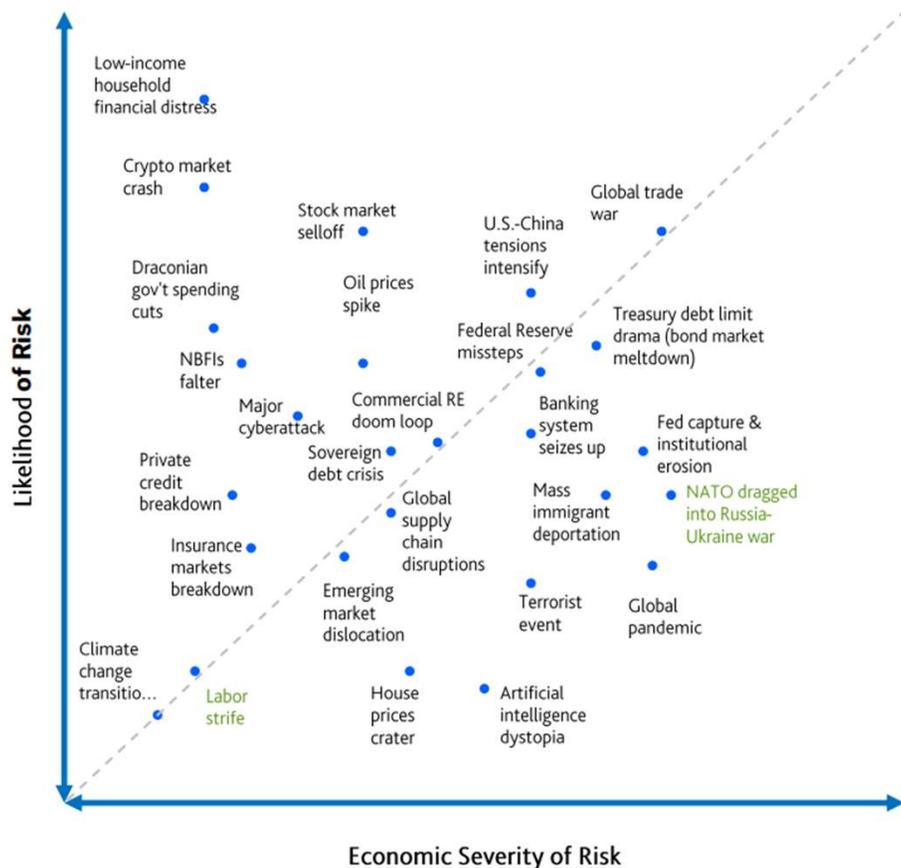
Macroeconomics is concerned with the study of economies on a national or global scale, exploring issues:

- The determinants of a country's total economic output and employment rates.
- The origins and impacts of inflation.
- The drivers behind economic growth and development.
- The effects of governmental fiscal and monetary policies on the economic landscape.

The goal of macroeconomics is to offer an in-depth insight into how economies operate, examining both the factors that lead to changes in economic conditions and the government's role in moderating these fluctuations.



U.S. Risk Matrix (April 9th)



Note: Changes in red are either an increase in the odds or severity of a risk. Changes in green reflect a decline in the probability or severity of an event occurring. Changes in blue represent a new risk.

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Thank you

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Scenario Planning

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Context Setting



The current energy industry landscape is facing more significant uncertainties and potential major inflection points than at any time since the 1970s

Key areas of uncertainty



Market

- Commodity market volatility (diverse energy mix, supply / demand imbalance)
- Capital markets
- Customer preferences



Technology

- Renewables levelized cost curves
- Emerging innovative technology (e.g. geothermal, nuclear fusion)
- AI / robotics / quantum acceleration / cyber security



Policy & Regulatory

- Policy commitment to energy transition
- Administrative state powers
- Reporting and compliance requirements



Geopolitics

- Trade wars and re-shoring impacting supply and demand
- Significantly increased risk of global conflict
- Likelihood of global climate agreements



Climate

- Extreme weather events
- Resiliency / reliability challenges
- Timing and impact uncertainty

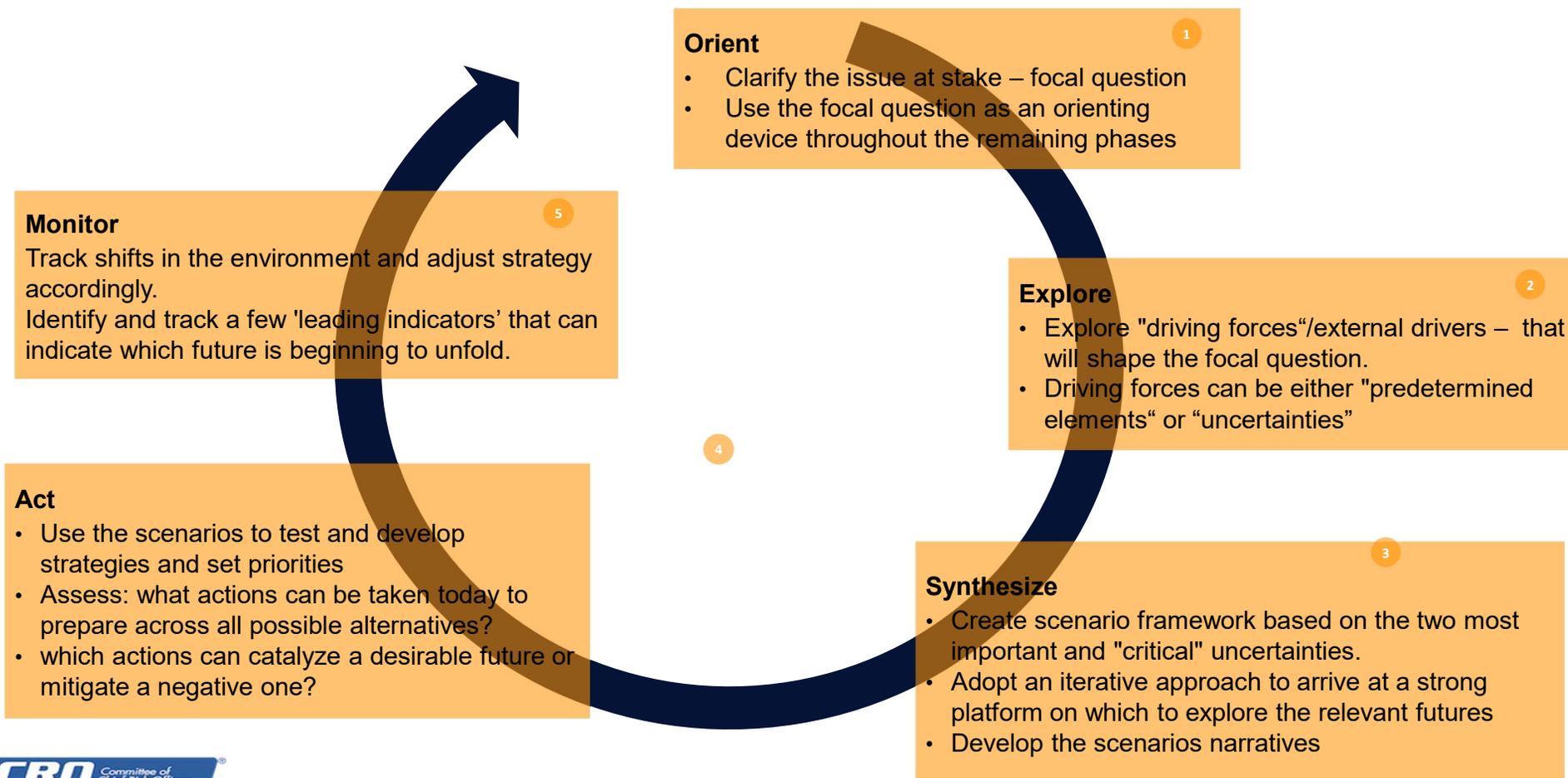
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Background

Scenario analysis is suited for managing uncertainty and complexity

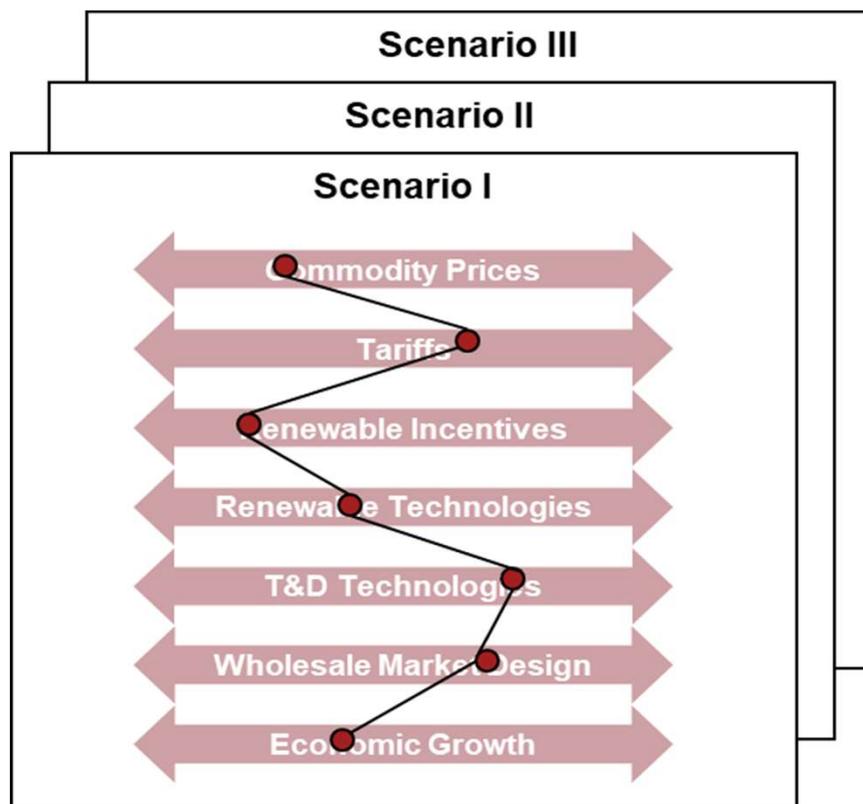
Scenario Thinking/Analysis	<ul style="list-style-type: none">• A strategy development/ decision making approach based on the use of alternative views (scenarios) about the future• Scenarios are provocative and plausible accounts of how relevant external forces might interact and evolve to prepare for potential disruptions/discontinuities• Best used for managing/adapting to big changes
Practice Evolution	<ul style="list-style-type: none">• Adopted by the military in 1940s• Made famous by scenario planners at Royal Dutch/Shell in the early 70s• Increasingly adopted by corporations and large organizations to manage increasing uncertainty and complexity
Fundamental Principles	<ul style="list-style-type: none">• Take a long-term view, beyond the 1-3 year planning horizons• Think from “outside-in“, taking into consideration external factors that can disrupt the industry• Embrace multiple perspectives to get a thorough understanding of potential threats and opportunities

Scenario planning involves both divergent and convergent thinking



Coherent and meaningful combinations of drivers

... are the basis of Plausible futures



- Are defined by the few critical dimensions along which scenarios differ significantly
- Are shaped by multiple forces: technology, regulation, economy, environment, etc
- Are feasible, coherent and complete characterizations of the future
- Bound the realm of future possibility
- Draw attention to possibilities that may otherwise not have been taken seriously
- Enable a group of stakeholders to have a shared understanding and vocabulary for talking about the future

2

Background

The group began with major drivers of uncertainty across four dimensions

Illustrative Drivers

Regulatory/Policy

Driver		
Federal policy commitment to energy transition	Limited or volatile (Trump)	High commitment (Biden/Obama)
State policies	Inconsistent	High consistency
Administrative state	Chevron deference litigated/limited change	Significant narrowing of federal agency deference
International climate agreement	None	Global climate commitments
EPA GHG Regulations	Overtured	Upheld
US Carbon Price	\$0/ton	~\$100/ton
Trade/labor influence	Domestic content/prevaling wage requirements	Market driven

Markets

Driver		
Gas (US Annual Average)	~\$2/mmBtu	~\$8/mmBtu
Oil	~\$60	>\$100
US Retail Power	~\$.15/kWh	~\$.30/kWh
Commodity Market Volatility	Historical	Extreme
10 Year Treasury	~2%	~8%
US GDP Growth	<1%	>3%
Customer Preference	Price Driven	Attribute Driven

Technology

Driver		
Renewables cost curves	Continuing cost declines	Cost escalation
Storage deployment	Limited	Widespread
Nuclear	Limited	Renaissance 2.0
AI/Robotics	Limited Growth	High growth
Quantum Computing	Limited	High growth
Emerging energy technologies	Limited	High proliferation
Carbon sequestration	Limited	High growth
Others?		

Shocks/Disruptors

Driver		
Extreme weather	~6 Atlantic Hurricanes	>10 Atlantic Hurricanes
US Power Grid	Historical Reliability	Significant reliability problems
Wildfires	Historical average	Increasing size and intensity
Climate Impact Mitigation	Limited investment	Widespread hardening
Others?		

Driver		
Global GDP Growth	Anemic (<2%)	Robust growth (>4%)
Trade conflict	WTO/globalization returns	Escalating trade wars
China	Détente	Taiwan conflict
Russia	Stalemate	Escalation
Middle East	Stalemate	Escalation
Climate Agreement	Limited	New Global Accord
Others?		

Major drivers of market uncertainty

Working Group Observations

- A decision-tree helps frame the different possible drivers of market uncertainty
- At the top branch, you could monitor either GDP or Sovereign Debt Levels as the macro biggest indicators and drivers of different outcomes from 2025-2035
- Breaking GDP into low and high scenarios,
 - Low/negative growth would see a collapse of demand, decreases in infrastructure and technology investment, slower advancements in energy innovation
 - High/positive growth would see sustained high levels of US employment and consumption, higher levels of inflation and high productivity
- Breaking Sovereign Debt into low and high scenarios,
 - Debt Default would see interest rates rise, reduced market liquidity, lower GDP, lower consumer confidence, reduced trust in the Federal Reserve and US Dollar as the reserve currency
 - Debt Stability would see lower interest rates, increased GDP and Federal collections that create headroom for high debt levels, and increased business activity that supports innovation and tech advancements
- Working group concluded Sovereign Debt and US Government handling of the Federal budget would be the leading driver for Market uncertainty over this period

Broader commentary on drivers & interdependencies

The decision-tree approach usefully identifies GDP and sovereign debt as macro-level levers influencing all other driver categories. High growth fuels technology and energy innovation, while debt crises constrain everything—from federal incentives to infrastructure investment. These factors are upstream of both policy and market confidence, making them essential to understanding the viability of long-term transition strategies and their sensitivity to external shocks like global conflict.

The group consolidated drivers of uncertainty into two critical dimensions

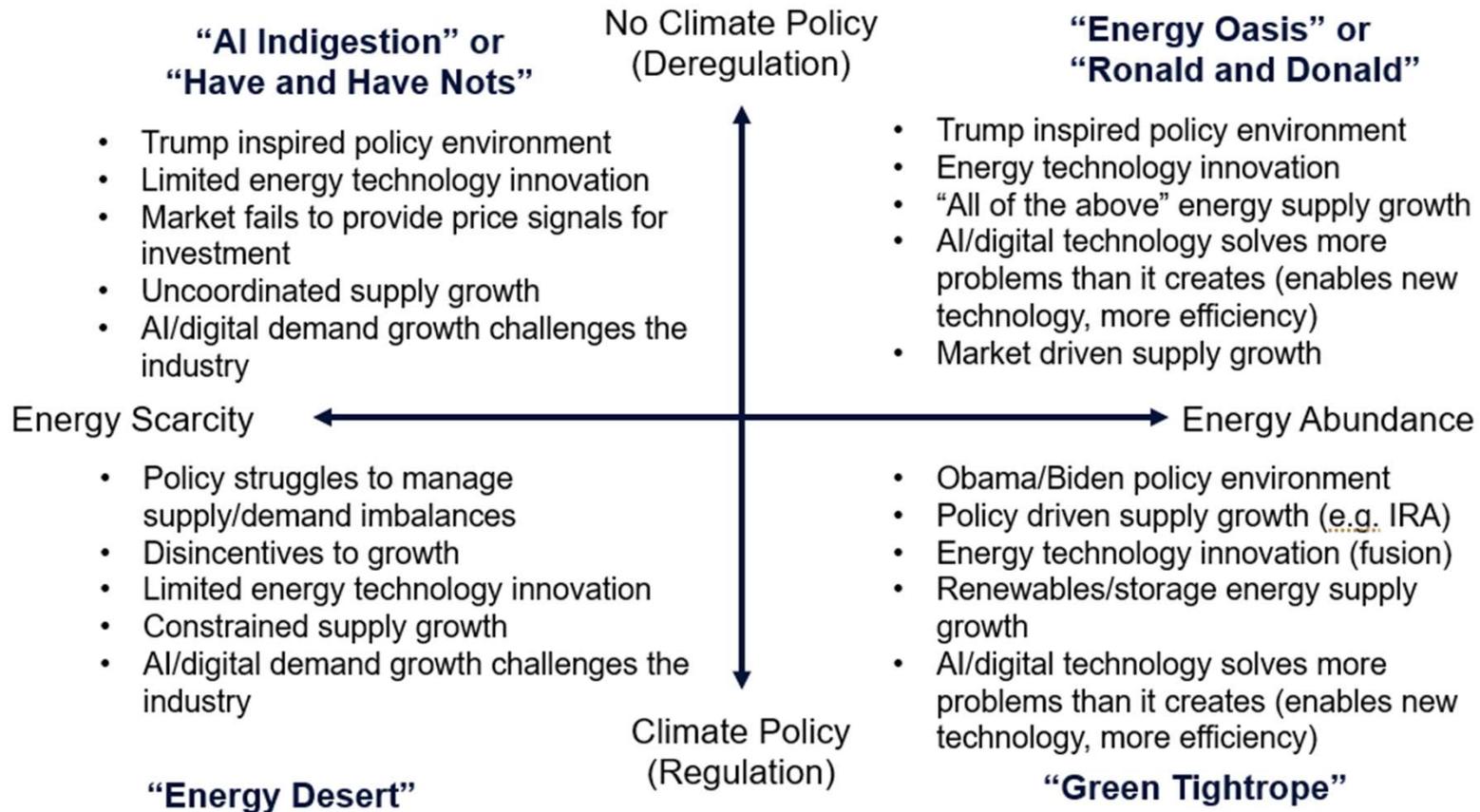
Energy Scarcity or Abundance

- This dimension of uncertainty is related to whether policy and/or market conditions ensure that energy markets are sufficiently supplied or starved
- The supply abundance could also be enabled (or hindered) by technology innovation. If, for example, new energy technologies (SMR, storage, fusion) emerge in the 2025-2035 timeframe in commercial quantities
- The development of digital technologies (AI, quantum computing) could also enable energy abundance by facilitating the commercialization of new energy technologies
- . . .
- . . . Or challenge the industry to meet the demand growth of data centers and AI proliferation.
- This driver integrates the forces of market, technology and policy factors in determining the sufficiency and resiliency of the US energy supply.

Policy – Climate/Regulatory Focus or Deregulation

- This dimension relates to the degree to which policy and regulation is used to drive specific outcomes in the US energy market
- Participants observed that generally US energy policy outcomes are often pursued through regulation (e.g. climate policy) rather than legislation
- The federal register has grown from under 50,000 pages at the end of the Reagan deregulatory era to nearly 100,000 pages at the start of the first Trump administration
- The second Trump administration has embarked on an deregulatory initiative that is more ambitious than that seen in the Reagan era or the first Trump administration
- This driver also integrates the degree of global integration of the US – deregulatory initiatives are also likely coupled with initiative to lessen integration with global policy (e.g. climate agreements)
- There is also a significant intersection with fiscal and monetary policy —taxation strategies and deficit reduction approaches will constrain or accelerate regulatory efforts

These major drivers, against each other, create different futures.



“Energy Oasis” or “Ronald and Donald”

Summary

- Stable policy environment with deregulation
- Energy technology innovation and investment
- “All of the above” energy supply growth
- AI/digital technology solves more problems than it creates (enables new technology, more efficiency)
- Market driven supply growth, substantial investment in energy infrastructure

Timeline

