10 years of Ortec Finance Scenarios: Past Breakthroughs, Future Directions

Patrick Tuijp | 4 June 2026

Past
-
How did our scenarios evolve?

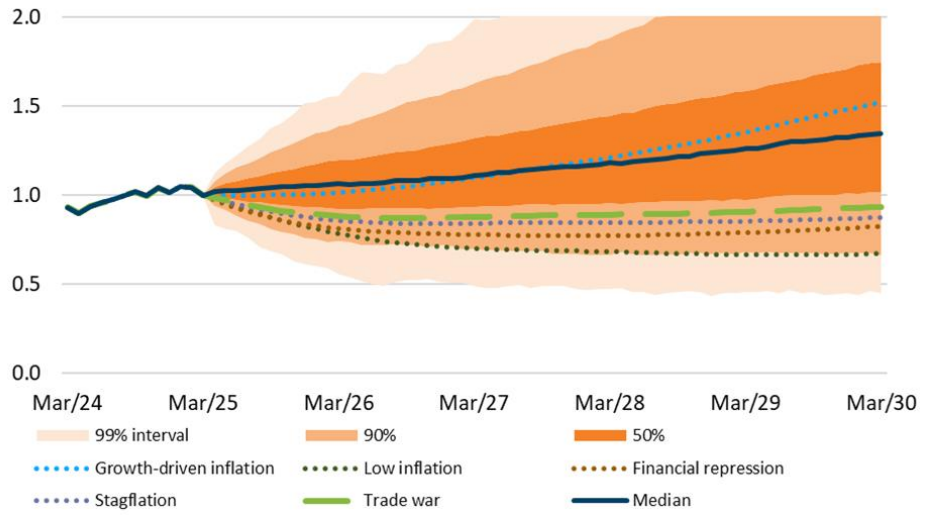
Why Ortec Finance Scenarios?

Key challenge

- Institutional investors must make decisions and manage risk under deep uncertainty across geographies, asset classes and time horizons.

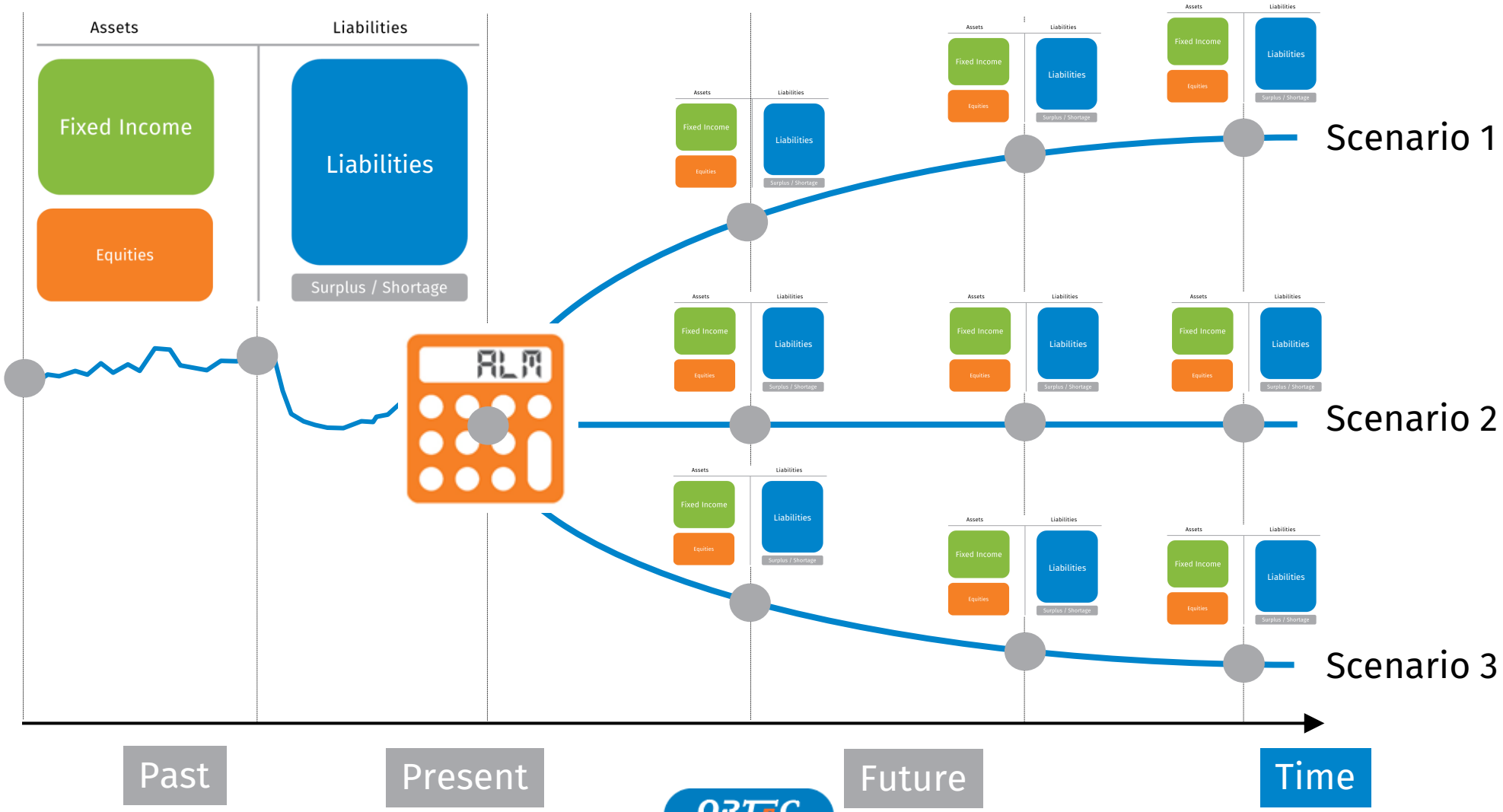
- Challenging to predict what *will* happen, though can certainly describe as realistically as possible what *might* happen.

- Investors need scenarios describing what might happen to economies and financial markets.



Scenario analysis: strategy evaluation

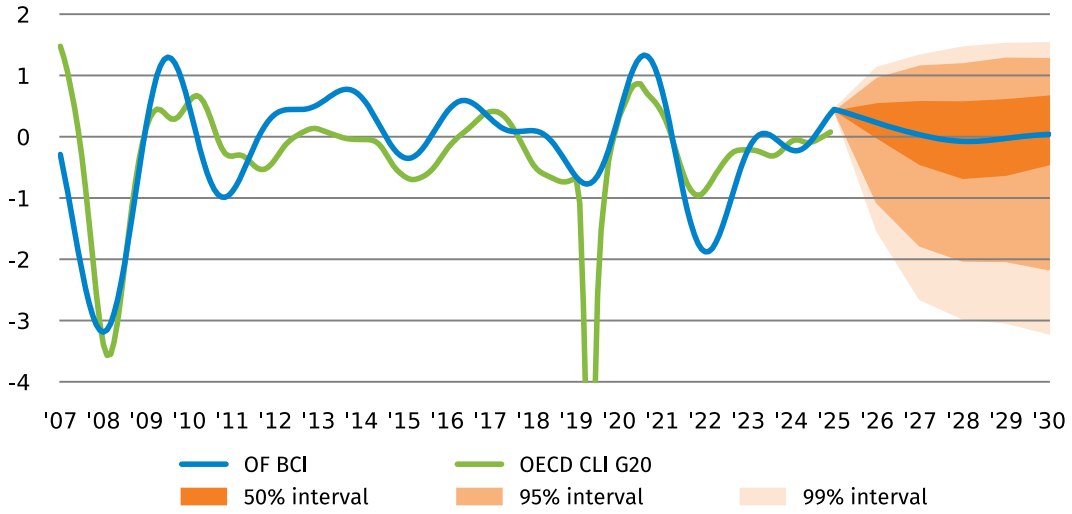
Simulating the balance sheet across different scenarios

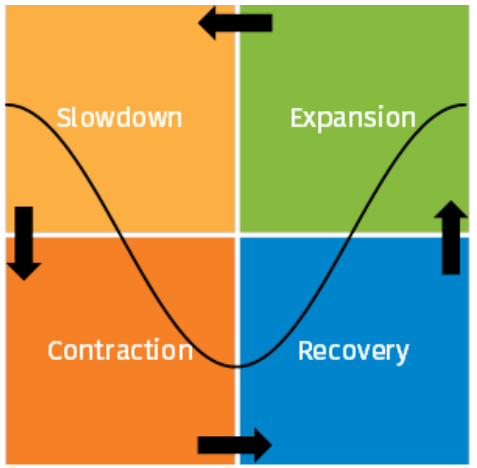


How should the Ortec Finance Scenarios look?

Generating decision-relevant scenarios

- We believe proper models, properly used, are the best tool to construct investment scenarios.
- Scenarios should consider all elements that materially impact the consequences of investment decisions as realistically as possible.
- Our model should therefore reflect robust empirical patterns, referred to as stylized facts.
  - Example: business cycles.





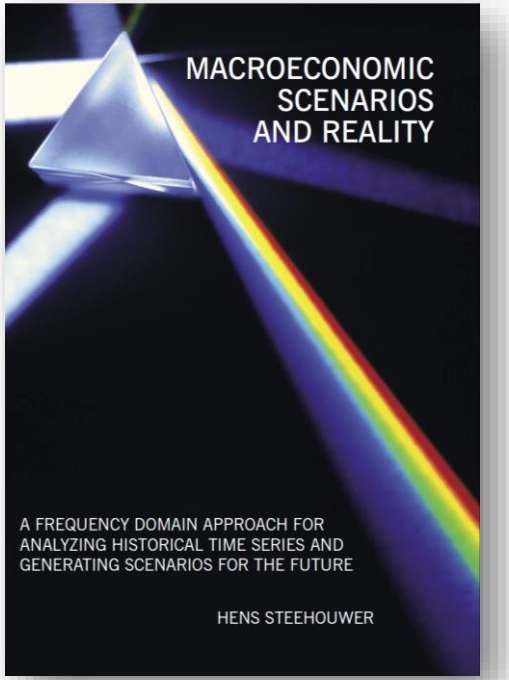
Bridging the gap between the short and long term

A tale of two models

- Dual-model challenge, inconsistencies in decision making:
  - VAR for the long term (1985).
  - Historical simulation for the short term (2005).

- Academic research by Steehouwer (2005):
  - How well models replicate stylized facts.
  - Solution to inconsistency long- and short-term scenarios.

- Dynamic Scenario Generator (DSG), launched in 2009:
  - Frequency-domain techniques capture economic cycles across horizons.
  - Dynamic Factor Models to solve dimensionality issues.



The OFS (2016)

What sets us apart

- The Ortec Finance Scenario set (OFS), captures risk and return
  - of 700+ variables and asset classes across 23 regions
  - from monthly to multi-decade horizons

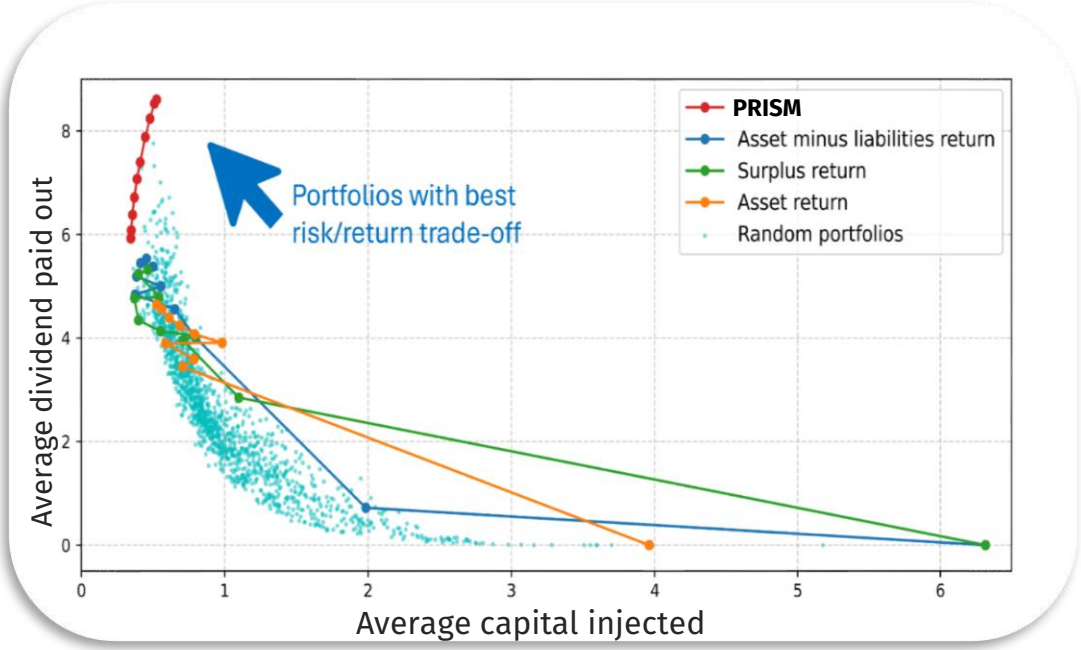
- Single coherent view of:

  - Funding, solvency, and risk metrics at asset class and total-portfolio level.

  - SAA, ALM, balance-sheet, and wealth decisions.

- House view calibration updated monthly.

- Result: high-quality investment decisions based on realistic projections.



Present
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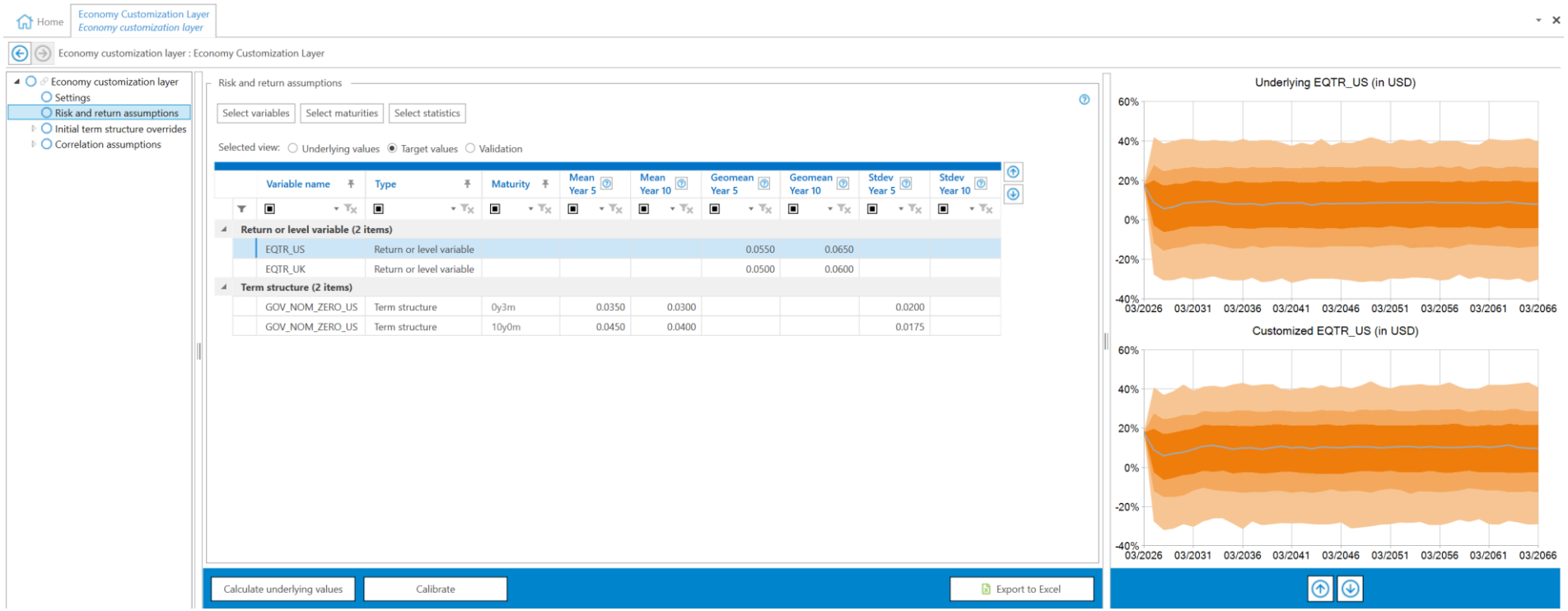
Innovations

The Economy Customization Layer (2020)

"It should take only three clicks"

- What:
  - Impose own Capital Market Assumptions.
  - Easy (!) calibration across horizons.
  - Direct graphical feedback, fast.
- When:
  - Development kick-off December 2019
  - Client feedback on plans / GUI April 2020
  - Roll-out to clients end of 2020!

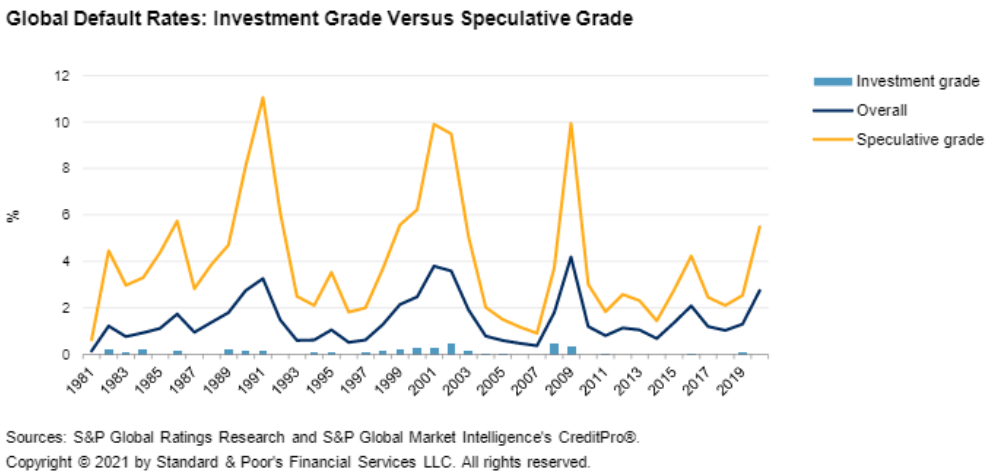


The Credit Rating Transition Module (2021)

Why did we build this?

- Rebalance-to-benchmark credit model: periodic rebalancing w.r.t. rating and maturity.
  - Suitable for fast calculations for investments tracking market benchmarks.

- Credit Rating Transition Module: buy-and-hold/maintain portfolios, change in rating over time.
  - Rating transition probabilities change with the market.



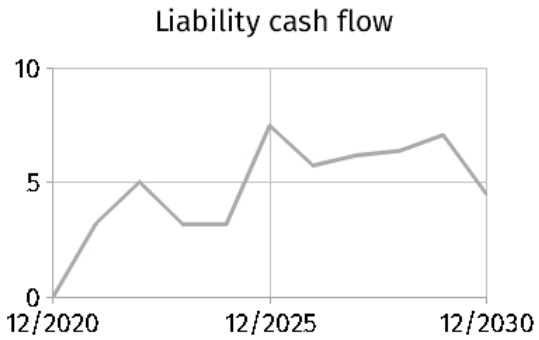
Sources: S&P Global Ratings Research and S&P Global Market Intelligence's CreditPro®.

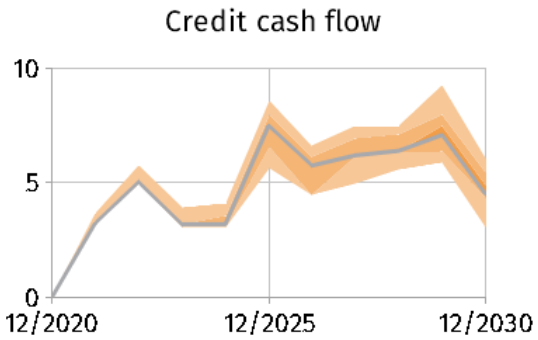
The Credit Rating Transition Module (2021)

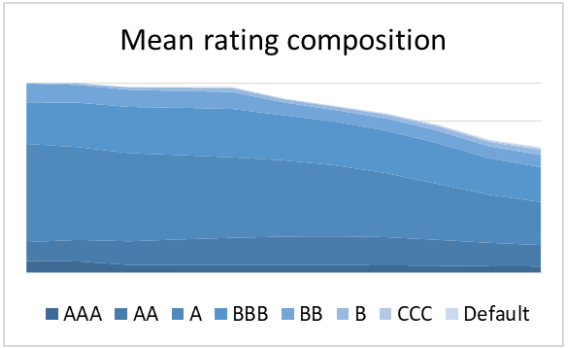
What does it give you?

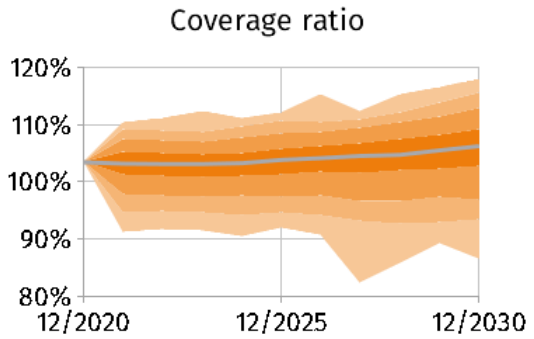
- Example balance sheet:
  - Fixed liability cash flow pattern.
  - Buy-and-hold credit portfolio (liability matching).
  - Cash position (liquidity management).

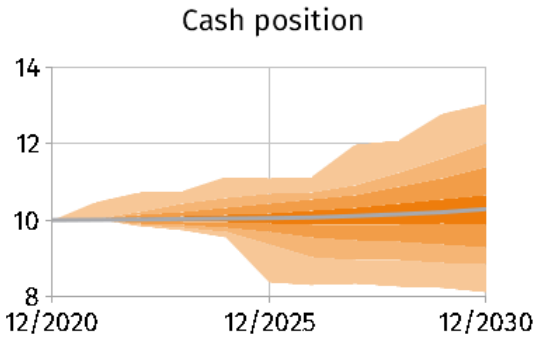
- Analyze:
  - Rating composition.
  - Solvency and coverage ratio measures.
  - Cash flow matching.







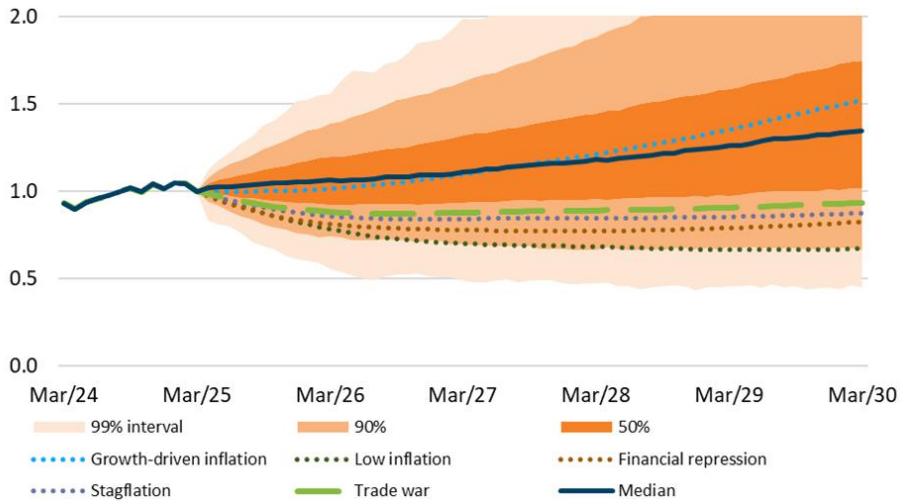


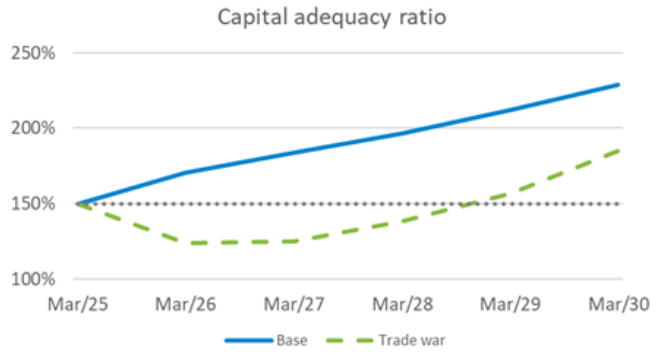


Deterministic scenario approach (2022)

A great complement to stochastic scenarios

- Stochastic scenarios reflect the full range of uncertainties, rather than only a few outcomes.
  - Indicates which ranges are more likely than others.
  - Can support making risk-return tradeoffs.
- Why narrative-based deterministic scenarios?
  - Creating risk awareness.
  - Testing robustness of investment strategies.
  - Identify risks overlooked by other methods.



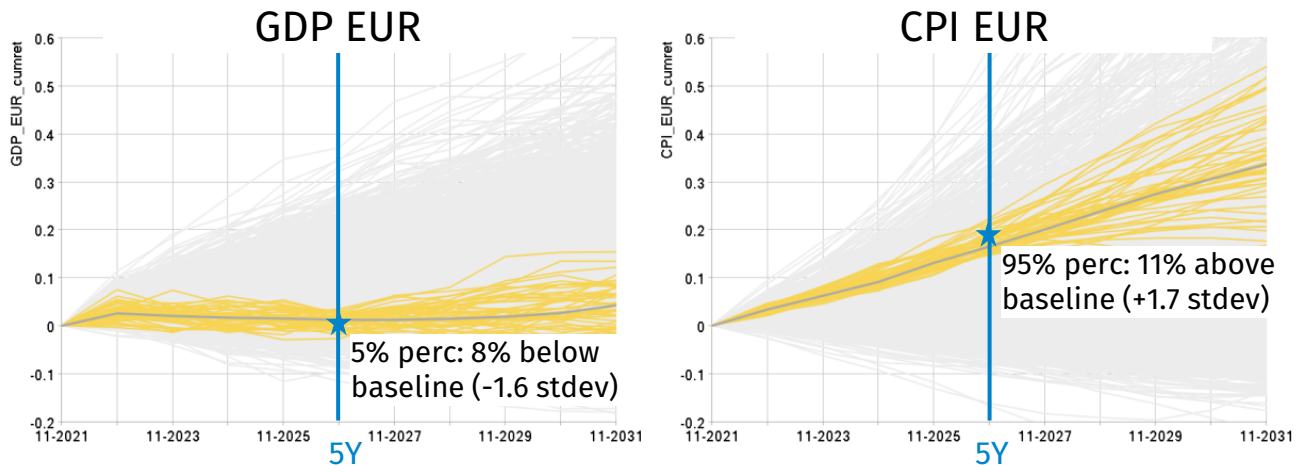


Deterministic scenario approach (2022)

How did we do it?

- Challenges:
  - Values for every asset class across full horizon?
  - What co-movements to assume?
  - How to construct efficiently and update to new market conditions?

- Our solution:
  - Characterize narrative as a quantitative filter imposed on stochastic scenarios.
  - Filtering retains stylized facts:
    - Relations, dynamics of risk and return reflected in stochastic scenarios.

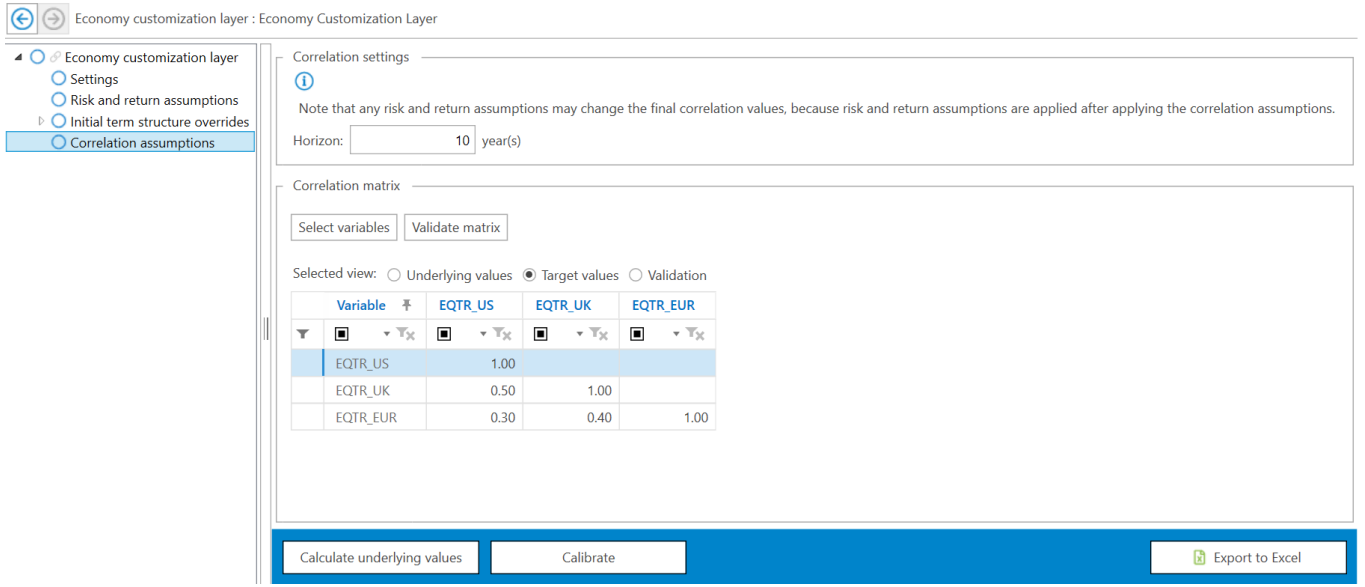


Correlation views (2023)

The next step

- Frequently observed wish
  - Baseline as well as

    stress testing use case



- What our methodology can do:
  - Impose correlation views in a flexible and intuitive manner.
  - Methodology also works for extreme adjustments.
  - Consistent impact on tail correlations and term structure of correlations.

Present
-
Events

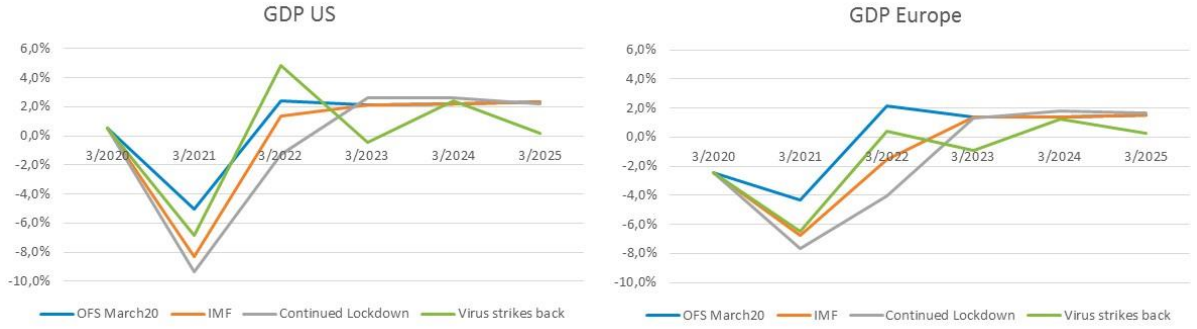
The Covid Shock (2020)

Radical uncertainty

- Lowered our Mar20 OFS growth, inflation, and interest rate outlook ("U-shaped recovery"):
  - Implied lower equity and other total returns.
  - Expected interest rate normalization to be delayed.
  - Increased asset volatility with 1.2x and 1.1x for projection year 1 resp. year 2.

- Covid stress scenarios
  - Constructed three Covid stresses: two deeper U-shapes and one W-shape.

- Recovery: quick, incomplete, uncertain, and termed K-shaped by many (sectoral divergence).



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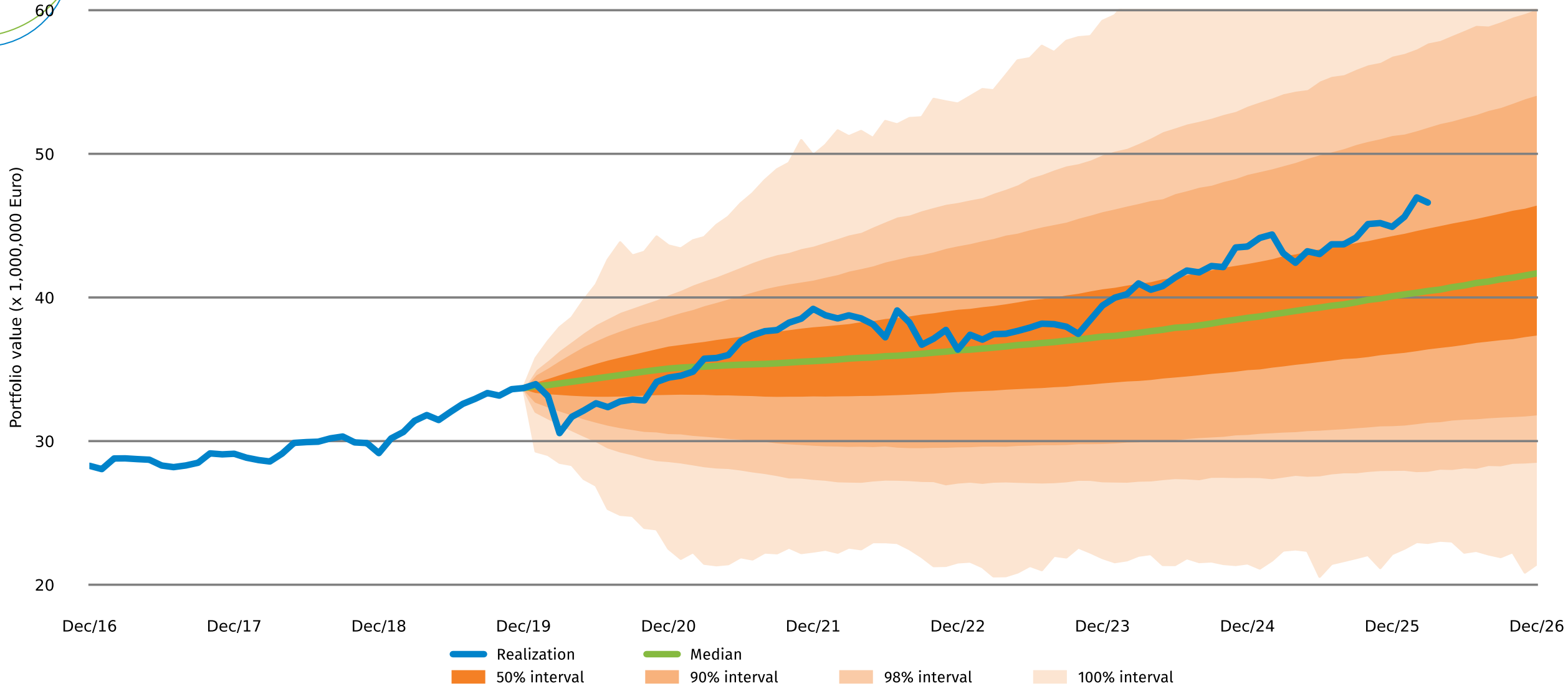
December 2019 scenario outlook

Monthly asset only portfolio value and risk according to a typical investment strategy of a European pension fund

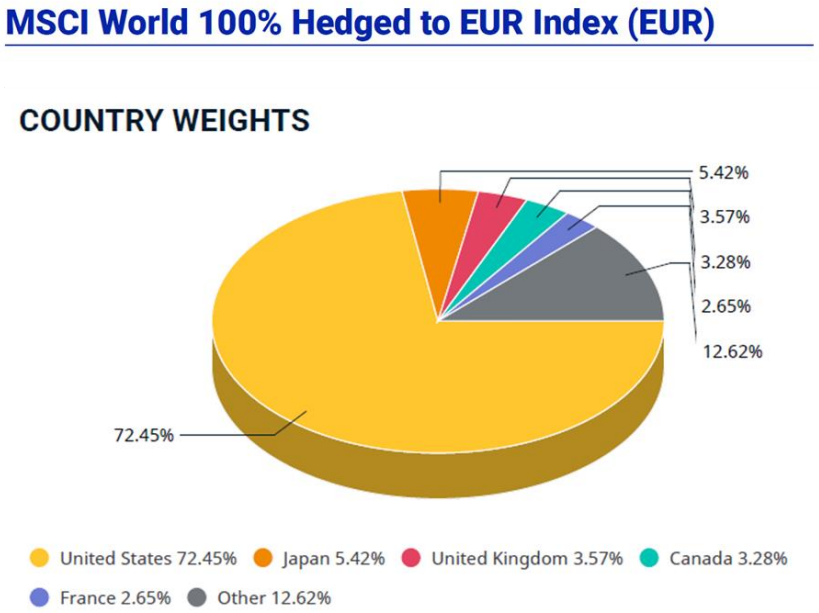


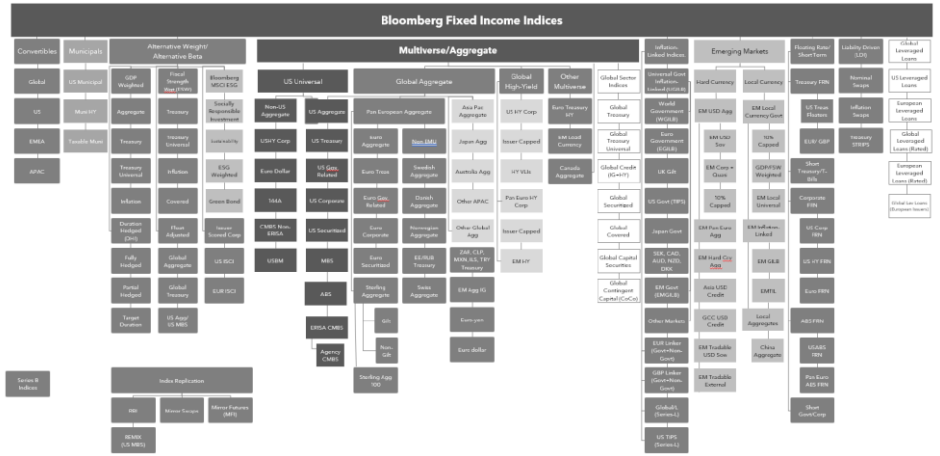
Future
-
What’s on our roadmap?

Investment Universe feature

Improving the user journey

- The Investment Universe will:
  - Define the potential investments.
  - Enable easy configuration of aggregate benchmarks.
  - Offer a simple modelling toolkit.
- Benefits:
  - Configure asset universe only once.
  - More focus on balance sheet modelling at investment policy granularity.

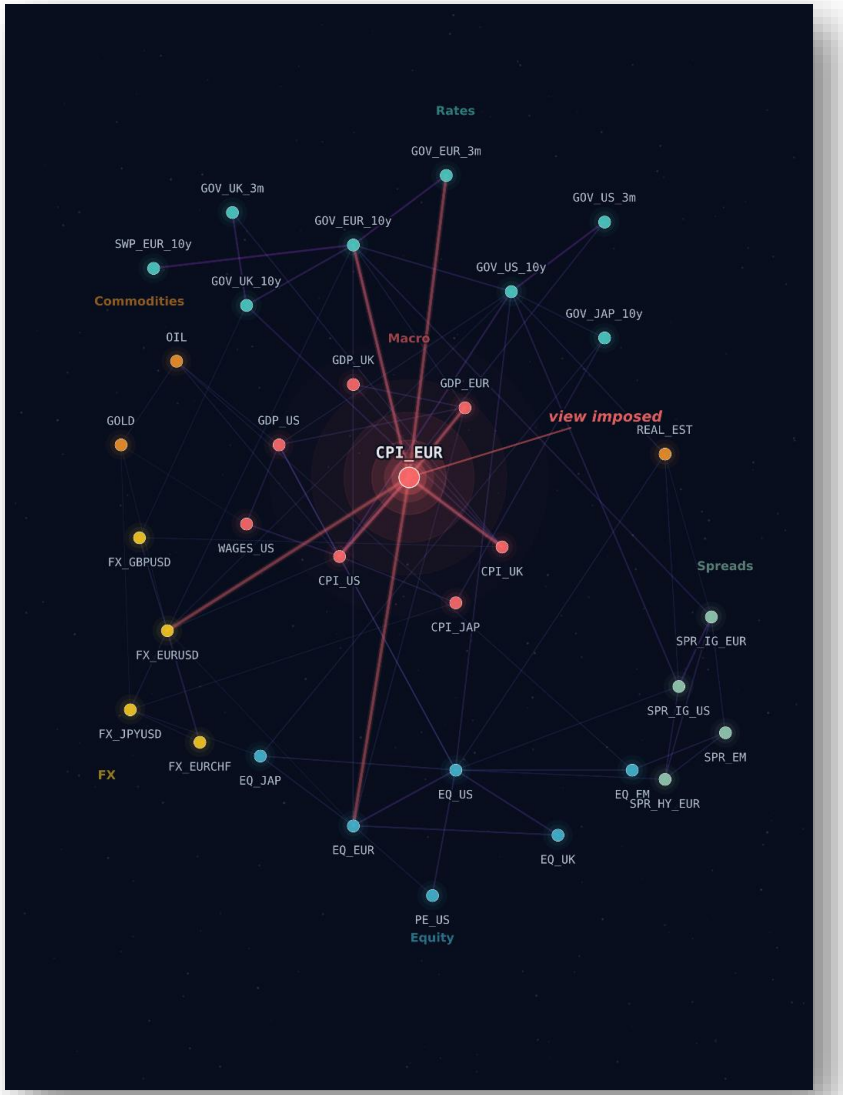




Impose Views feature

Sub header

- Enables consistent translation of views across variables, asset classes, regions, and time horizons.
- Example: views on growth, interest rates, inflation consistently translated to asset class returns.
- Method is fast and achieves stable and consistent results.
- Starting up the pilot phase.



The end?

Or just the beginning?

It all starts with you, our clients!

Guiding principle

- For our innovation roadmap, your needs matter most!
- How do we then turn a roadmap into reality?
- Many of us contributed to what you've seen in this talk:
  - Software developers
  - Quantitative financial developers
  - Quantitative financial analysts
  - Business/Information analysts
  - Consultants
- Importantly, your contribution is key to validate along the way whether we got it right.
- We look forward to your feedback on the Investment Universe and Impose Views features!
  - To answer my question: surely just the beginning. ☺

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