



Expressing Economic Views in Aivodot PRO

Aivodot is portfolio management software focused on optimal portfolio construction at scale. It allows portfolio managers to design portfolios with great variety of objectives ranging from different investment styles, risk profiles, exposure to different asset classes, sectors, industries, economic themes and many more dimensions. Aivodot enables money managers to enhance the personalization of their investment products while streamlining portfolio management activities, saving time, and freeing up resources to focus on generating unique alpha.

Expressing economic views is integral to most investment strategies, even when a bottom-up approach dominates. Shifts in interest rates, inflation, and economic growth can drive the broad over- or underperformance of entire sectors and industries, often outweighing the strength of individual stock selections. A notable example is 2022, when the technology sector underperformed significantly due to concerns over rising interest rates and inflation.

Economic views come with two distinct challenges:

- **Forming a view:** Predicting macroeconomic trends, such as potential increases in inflation or decreases in economic growth.
- **Implementing a view:** Translating those predictions into actionable investment decisions, such as determining which assets to buy to benefit from rising inflation.

Both challenges require a significant effort to overcome. In Aivodot, we believe that overcoming the implementation challenge can be largely automated, thus allowing portfolio managers to dedicate more time to forming views, retaining their unique insights and delivering alpha for their clients.

Aivodot Approach to Economic Views

Aivodot enables portfolio managers to express their economic views through a structured framework that integrates both strategic and tactical insights, aligning portfolio construction with specific macroeconomic expectations and driving a top-down investment approach.

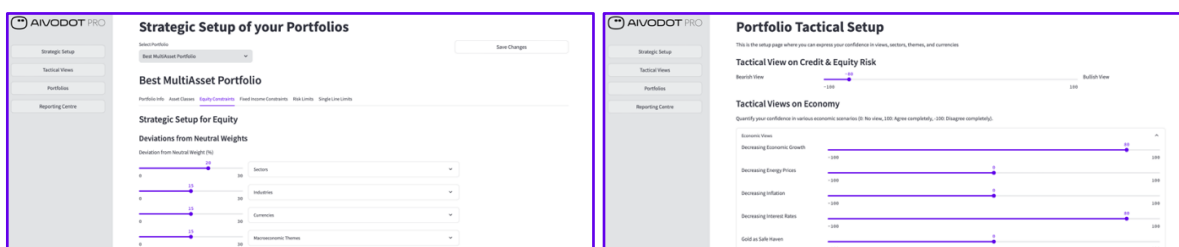
Economic views in Aivodot are mapped to groups of industries and sectors expected to perform well under particular economic conditions.

Portfolio managers express these views on two levels:

- **Strategic level:** Users set minimum and maximum weight boundaries for each economic theme, which are then automatically translated into corresponding groups of sectors and industries for each portfolio. This approach allows for flexibility, as managers can choose to limit active positioning in certain portfolios while taking larger deviations in others.
- **Tactical level:** Users indicate their confidence in these views on a scale from -100% (strongly disagree) to +100% (strongly agree), enabling dynamic positioning as economic conditions change. Tactical views are set at a global level, reflecting the firm's overall economic outlook and applied across portfolios.

Once these strategic and tactical views are set, Aivodot's optimization engine incorporates them into the portfolio, balancing top-down thematic views with bottom-up security selection. For example, if the strategic boundaries for "Increasing Economic Growth" are set between 0% and 20%, expressing 100% confidence in this view results in a full 20% allocation to that theme.

Importantly, views are implemented to the maximum extent possible within the strategic constraints of each portfolio. This allows portfolio managers to efficiently express their economic perspectives across portfolios without breaching individual portfolios' risk limits, investment style, asset allocation, or other constraints.



Overview of Economic Themes

Below is a summary of the economic themes currently offered in Aivodot, with a high-level rationale for their sector and industry mappings:

Increasing Energy Prices

When energy prices rise, traditional energy sectors (oil, gas) benefit from higher commodity prices. Additionally, alternative/renewable energy companies may gain due to the drive for energy diversification, and the fact they appear more affordable when traditional energy is more expensive.

Decreasing Energy Prices

Declining energy prices reduce operational costs for energy-intensive industries like manufacturing, transportation, chemical production, and hospitality. This can also boost consumer demand, particularly in sectors like auto retail and tourism, where lower fuel costs increase disposable income and travel affordability.

Gold as Safe Haven

In times of economic uncertainty or rising inflation, gold and other precious metals are historically seen as safe-haven assets. Mining industries related to gold benefit from increased investor demand for physical assets as a hedge against volatility.

Increasing Interest Rates

Higher interest rates typically benefit financial institutions like banks and insurance companies. Banks can profit from wider interest rate spreads, while insurance companies may see improved returns on their investment portfolios due to rising bond yields.

Decreasing Interest Rates

Lower interest rates tend to spur borrowing, benefiting rate-sensitive sectors such as real estate (through increased property demand). Sectors like utilities and telecommunications offer a stable dividend income, when investors are looking for yield replacement.

Decreasing Economic Growth

During economic slowdowns, defensive sectors like healthcare, consumer staples, and utilities typically perform well due to their stable demand. These sectors are less sensitive to economic cycles, providing a cushion in times of declining growth.

Increasing Economic Growth

Expanding economies tend to boost sectors like consumer cyclicals, industrials, and transportation. Increased consumer spending and industrial production lead to higher demand for products and services in these areas, driving sector growth.

Increasing Inflation

Rising inflation increases input costs, often leading to higher revenues in sectors like energy, real estate, and agriculture. Commodity-based sectors also tend to benefit as physical goods retain value better in an inflationary environment.

Decreasing Inflation

Falling inflation supports discretionary consumer spending, as the purchasing power of households increases. Technology companies are also expected to benefit considering their growth nature where current share price are largely supported by their future growth. Low inflation usually means lower interest rates, reducing the discount rate for future earnings.

Sector and Industry Mapping Process

The mapping of sectors and industries to economic themes in Aivodot is a qualitative process utilizing the decades-long combined experience of Aivodot's portfolio managers in both top-down and bottom-up portfolio management. This approach highlights Aivodot's unique strength: a quantitative portfolio construction system firmly anchored in real-world experience and economic theory, ensuring intuitive clarity, transparency, and avoiding pitfalls like data-mining or black-box quant models.

The qualitative process is backed by high-quality dataset. Aivodot leverages FactSet's 6-level industry classification, which provides extremely granular data on company revenue sources.

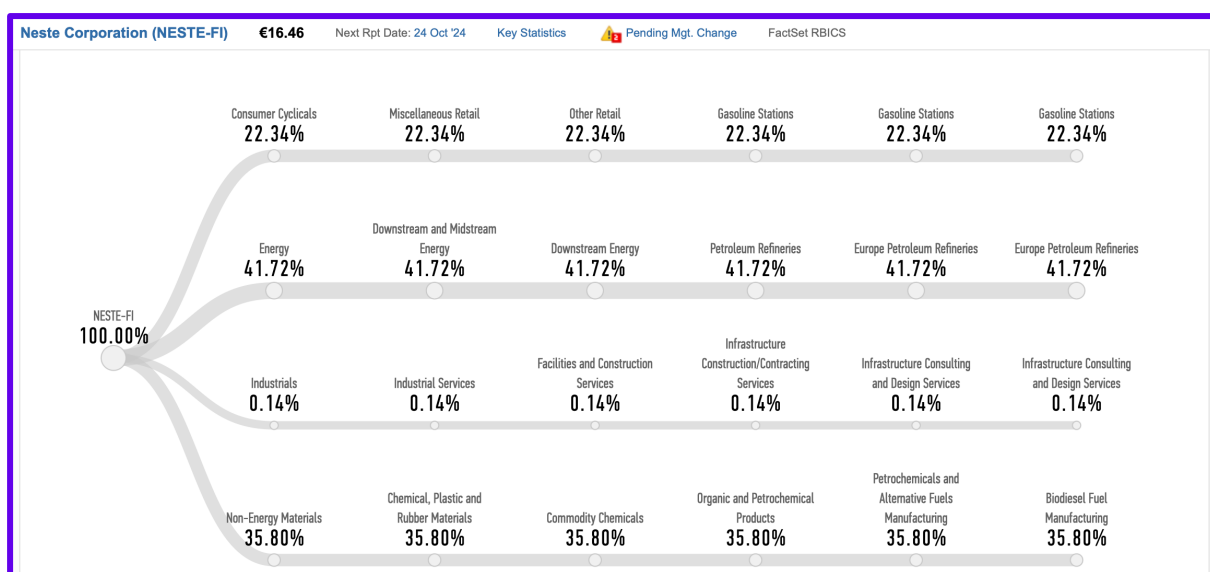


Figure 1: Example of Granular Revenue Categorisation from FactSet

With FactSet dataset, Aivodot improves on traditional sector categorization by considering a company's full range of revenue sources, not just its largest stream, for a more comprehensive view. This gives portfolio managers upper hand by distinguishing thematic/sectorial “pure-plays” from more ambiguous businesses.

The sector to economic theme categorisation works with two type of relevance scores:

- **Theme Relevance Score** – A score assigned by Aivodot portfolio managers to each FactSet sector to quantify how relevant the sector is for playing respective economic themes.
- **Stock Relevance Scores** – Percent of revenue coming from respective sector. This number is coming from FactSet dataset.

By multiplying Theme Relevance Score with Stock Relevance Score, Aivodot arrives at **Overall Relevance Score** that effectively measure the extent to which each stock is relevant to respective economic theme.

For example, if an economic theme is related to "Increasing Energy Prices," Energy and Renewable Energy sectors will receive high Theme Relevance Scores, thus companies deriving significant portion from these sectors (high Stock Relevance Scores) will be weighted more heavily in the portfolio due to their high Overall Relevance Score. This provides a robust mechanism to translate economic views into precise portfolio adjustments.

Example of Increasing/Decreasing Energy Prices

To better illustrate the point, lets dive into example of Increasing Energy Prices and Decreasing Energy Prices economic theme.

Increasing Energy Prices

As outlined above, the optimal course of action when one believes in Increasing Energy Prices is to increase exposure to Energy as well as Renewable Energy space. We have mapped this as follows:

Facstet Category Name	Theme Relevane Score	Factset Categorisation
Energy	100%	Level 1
Photovoltaic and Solar Cells and Systems Providers	75%	Level 6
Wind Energy Equipment Manufacturing	75%	Level 6
Biodiesel Fuel Manufacturing	75%	Level 6
Fuel Cell Equipment and Technology Providers	50%	Level 6
Mixed Renewable Energy Generation Manufacturing	50%	Level 6
Smart Grid Technology and Smart Meter Products	50%	Level 6
Hydroelectric Power Generation Equipment Providers	50%	Level 6
Geothermal Energy Equipment Manufacturing	50%	Level 6
Wave Energy Equipment Manufacturing	50%	Level 6
Hydrogen Gas Manufacturing	50%	Level 6
Gasification Alternative Fuel Manufacturing	50%	Level 6
Other Alternative Fuel Manufacturers	50%	Level 6
Hydrogen Fuel Manufacturing	50%	Level 6

We have assigned 100% theme relevance score to Energy, being a level 1 category, which every energy company regardless of whether its upstream, downstream of a midstream segment. These companies are considered to be “pure-plays” for the economic theme hence prioritized when seeking exposure to Increasing Energy Prices. With lower theme relevance score, we have included several level 6 categories (the most granular level) to cover all alternative energy companies, which we expect to be relevant as well. In Aivodot global equity universe, portfolio managers have access to approximately 200 stocks, where the Overall Relevance Score for this particular economic theme is at least 50%.

Decreasing Energy prices

When looking for exposure to decreasing energy prices, we put our focus in companies with exposure to energy-intensive businesses with high positive impact from lowering their cost base due to cheaper energy. Looking through the business categorisation, we propose following mapping:

Facstet Category Name	Theme Relevane Score	Factset Categorisation
Chemical, Plastic and Rubber Materials	100%	Level 2
Hospitality Services	100%	Level 2
Auto Retail	100%	Level 3
Consumer Vehicles and Parts	100%	Level 3
Home Builders and Manufactured Buildings	100%	Level 3
Passenger Transportation	100%	Level 3
Agriculture	100%	Level 3

In Aivodot global equity universe, portfolio managers have access to approximately 600 stocks, where the Overall Relevance Score for this economic theme is at least 50%.

Customization and Flexibility for Clients

Aivodot clients get full transparency over all economic themes including the relevance scores and underlying business categorisation that triggered inclusion into respective economic themes. On top, clients can fully customize the mapping to better reflect their world views and expert judgement. This flexibility ensures that portfolio managers can tailor Aivodot's functionality to suit their specific investment mandates, while being able to leverage on Aivodot portfolio construction engine to arrive at the most optimal economic view implementation.

Key Benefits of Economic Views Integration in Aivodot PRO

By allowing portfolio managers to incorporate their top-down economic perspectives into portfolio construction, Aivodot addresses a challenge of integration of top-down macro views into potentially very diverse set of portfolios, each with unique set of strategic constraints and goals. With Aivodot, portfolio managers can dedicate more time to the analysis of markets and shaping of their opinions, while Aivodot turn these ideas into optimal portfolios in a robust and fully automated fashion. This results in streamlined portfolio management process, where portfolio managers retain their sources of alpha.