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# Fixed Income Asset Allocation: How to Leverage Portfolio Manager Convictions

Asset allocation plays a pivotal role in portfolio management as it ensures rigorous risk monitoring and enables the capitalisation on relevant convictions. In a market environment that is constantly evolving, characterised by complex economic cycles and fluctuating volatility levels, a suitable allocation framework is essential for achieving performance objectives while maintaining controlled risk. It serves as a critical tool for effectively navigating financial markets and transforming management strategies into tangible positions.

At Candriam's Fixed Income Business Unit, we manage a wide range of active discretionary funds, but existing portfolio construction methods have been rarely designed specifically for this kind of funds. While these methods are well suited for systematic strategies, they lack the flexibility required for discretionary portfolio management. To address these issues, we developed a practical allocation framework in collaboration with portfolio managers (PM). This framework integrates realworld constraints, enabling active positioning while maintaining risk discipline. It ensures an optimal balance between risk control and investment convictions, making it suitable for active discretionary portfolio management.

Before presenting our approach, we will first review existing allocations methods, highlighting their respective advantages and the drawbacks that we sought to overcome. We will then show an example of its practical application on our Euro Govies strategy.



**Explore** Close up

# 1. Existing Historical Allocation Frameworks

# a. Return-Based Approaches

These approaches are designed to optimise the trade-off between risk and return by relying on expected returns, asset risk and correlations. These methods form the foundation of modern portfolio theory, first introduced by Harry Markowitz in the 1950s. Other well-known return-based approaches include the Black-Litterman model, which incorporates investor views into the optimization process, a widely used method in asset allocation.

## **Principles**

Return-based approaches solve an optimisation problem that seeks to maximise expected returns for a given level of risk or, conversely, minimize risk for a specific level of expected returns. This process requires inputs such as expected asset returns, variances, and covariances to construct a portfolio with the best possible risk-adjusted performance. The objective is to leverage predictive models or expert forecasts to allocate capital in a way that generates alpha while respecting a portfolio risk limit.

#### Return-based in a nutshell:

 $(\min)\sigma(\omega)$   $\omega$ u.c. ER( $\omega$ )= $\alpha$ 

 $\alpha$ : target portfolio expected return  $\sigma(\omega)$ : total portfolio risk

### Advantages

The primary strength of return-based approaches lies in their ability to incorporate performance expectations and adapt to active investment strategies. These approaches are especially well-suited for strategies where portfolio managers have strong convictions about future asset returns and wish to take positions that reflect these views.

### **Drawbacks**

These approaches are highly sensitive to the accuracy of the expected return and correlation estimates. Forecasting returns carries inherent uncertainty, and minor inaccuracies in these inputs may lead to suboptimal portfolio diversification, significant drawdowns, or poor performance. Additionally, during periods of market stress, correlations between assets may change abruptly, undermining the effectiveness of the optimization process. Furthermore, these methods often result in a highly concentrated portfolio and high portfolio turnover.

# b. Risk-Based Approaches

These approaches prioritise risk management over return generation, in the portfolio allocation process with the objective of creating portfolios that are resilient to market volatility by balancing the risk contributions of individual assets. In contrast to return-based approaches, they do not rely on uncertain performance forecasts that are subject to uncertainty, instead focusing on stable metrics such as volatility. The primary goal is to construct robust portfolios that maintain stability across various market conditions.

### **Principles**

The objective of a risk-based approach is to construct a portfolio where no single asset disproportionately drives overall risk. To achieve a well-diversified allocation, risk budgets are assigned to each asset, and the portfolio is optimised to align individual risk contributions with these predefined budgets. A well-known example of this methodology is the Risk Parity approach, where risk budgets are set equally across all assets, ensuring that each contributes the same proportion to the portfolio's total risk.

#### Risk-based in a nutshell:

 $(\min_{\omega})\sigma(\omega)$ u.c. RC<sub>i</sub> ( $\omega$ )=b<sub>i</sub>

$$\begin{split} &\sigma(\omega): total \ portfolio \ risk \\ &RC_i: risk \ contribution \ of \ asset \ i \\ &b_i: risk \ budget \ of \ asset \ i \end{split}$$

#### **Advantages**

The primary strength of risk-based approaches lies in their ability to create stable and well-diversified portfolios, thereby reducing reliance on uncertain return forecasts. By balancing risk contributions among assets, these methods improve portfolio resilience during periods of market stress and help mitigate concentration risk. Additionally, they tend to result in lower portfolio turnover, which in turn reduces transaction costs.

#### **Drawbacks**

It should be noted that these methods are unable to incorporate the views of portfolio managers, which limits opportunities to capitalise on strong return expectations. Since these methods do not explicitly account for future performance, they may underperform in environments where accurate return forecasts are available or where active positioning is required to generate excess returns. Additionally, they can sometimes result in overly conservative allocations, which restricts exposure to high-conviction opportunities.

# c. Critical Analysis

We can summarize our previous remarks in the following table.

Approach	Advantages	Drawbacks
Return-based	• Easy to understand • Take into account active views	<ul> <li>Highly sensitive to estimation errors</li> <li>Requires precise assumptions about future returns</li> <li>May result in poorly diversified portfolios</li> </ul>
Risk-based	<ul> <li>Focuses on risk repartition</li> <li>Generates robust portfolios</li> </ul>	<ul> <li>Does not incorporate PM views</li> <li>Not aligned with benchmark fund management</li> <li>May be too conservative</li> </ul>

As highlighted above, each method has its own set of strengths and limitations. However, the key challenge is that neither approach, on its own, is fully practical or sufficient to meet the complex, real-world demands of **active discretionary** portfolio management. Risk-based methods offer robust stability and diversification but lack the flexibility to incorporate active market views. Conversely, return-based methods provide the ability to leverage performance expectations but are highly sensitive to estimation errors, making them unreliable in volatile markets. At Candriam, to address these shortcomings, we have developed a proprietary allocation framework that bridges the gap between theory and practice. Our approach combines the stability and resilience of risk-based methodologies with the adaptability and conviction-driven focus of return-based strategies. This hybrid framework is perfectly designed to meet the practical needs of our Fixed Income portfolio managers, enabling them to construct active portfolios that are not only robust and well-diversified but also aligned with their investment convictions and performance objectives.

# 2. Active Risk-Budgeting

At Candriam, convictions drive decisions, but it's just as crucial to implement these beliefs in a practical way. To ensure that investment views translate into effective portfolio positioning, we set out to design an allocation method that allows portfolio managers to take active positions while ensuring a structured and disciplined risk framework. As previously mentioned, the existing literature offers no robust allocation method directly suited to active discretionary portfolio management. Most models are either too rigid for active investing or too reliant on precise return estimates, making them very difficult to apply them directly in practice.

# a. Desired Features

To define what a truly effective framework for active portfolio management should look like, we worked in close collaboration with portfolio managers to identify the key properties our active allocation model needed. The objective was clear: build a framework that strikes the right balance, offering the flexibility to take active positions while maintaining rigorous risk discipline.

A key principle underpinning **this framework is the independence** of convictions and implementation.. An investment view—whether fundamental or quantitative—should not be constrained by allocation mechanics. Portfolio managers should be able to develop and express their views freely and independently of the allocation framework.

Secondly, the framework had to integrate both top-down risk budgeting and bottom-up flexibility. A structured risk allocation ensures stability and diversification, but true active management requires the ability to adjust positions dynamically in response to market opportunities. Without this flexibility, a model risks being detached from the realities of discretionary investing.

A third essential requirement was to overcome the limitations of traditional return-based approaches and provide a **robust way to incorporate PM convictions**, both positive and negative. Instead of requiring portfolio managers to estimate expected returns with precision, the model must allow them to express a degree of conviction whether strong, moderate, or weak—without requiring an exact numerical forecast. This enhances the framework intuitiveness and adaptability to real-world discretionary management.

## Risk-based in a nutshell:

 $(\min_{\omega})\sigma(\omega)$ u.c. RC<sub>i</sub> ( $\omega$ )=b<sub>i</sub>  $\omega_i$ =f(conviction<sub>i</sub>)

σ(ω): total portfolio risk RC<sub>i</sub>: risk contribution of asset i b.: risk budget of asset i Finally, the framework had to be **practical and intuitive.** The allocation process must be transparent, easy to understand, and robust across different market conditions. If a model is too theoretical, too fragile, or too dependent on unreliable inputs, it will ultimately fail to serve its purpose in real-world portfolio management.

# b. Our Model

The challenge was to develop an allocation methodology that incorporates these key properties while ensuring robustness. To achieve this, we built upon the stability and discipline of risk-based approaches, choosing to structure our framework around risk budgeting. As a reminder, this method involves setting risk budgets for each asset and constructing a portfolio where each asset's risk contribution aligns with its predefined budget. This ensures a balanced and controlled allocation.

However, standard risk-budgeting models do not portfolio naturally incorporate manager convictions-a key requirement for active discretionary management. Our research focused on overcoming this limitation by developing a method that allows convictions to directly influence asset weights without destabilising the riskbudgeting framework. After extensive research and various models testing, we arrived at an approach that preserves the structure of risk-budgeting allocation while ensuring that portfolio managers' views directly influence asset weights. We have studied how these convictions impact allocations carefully to ensure that the process remains rigorous, and robust, making the final model both adaptable and reliable in real-world conditions.

In addition to the key features we described above, the framework also brings an added dimension: scalability across strategies. Indeed, it has the advantage of being adaptable to various asset classes and portfolio management styles, whether fixed income, equity, or multi-asset strategies, and is suitable for both discretionary and systematic approaches involving either Long-Only or Long-Short trades. This scalability ensures that the allocation methodology remains relevant across different market environments, providing a consistent and robust framework that can be adapted to different investment contexts without losing its structural integrity.

By establishing these key principles, we have developed a robust and flexible allocation framework that is fully aligned with Candriam's approach to active portfolio management. Designed to balance top-down risk budgeting with bottom-up flexibility, it ensures that investment convictions remain independent of their implementation while integrating portfolio managers' views in a structured and controlled manner. This framework combines the structural benefits of risk budgeting with the adaptability of conviction-driven allocation, allowing managers to dynamically express their market views while maintaining rigorous risk control. As a result, we have created a scalable and resilient model that supports discretionary decision-making and adapts seamlessly to evolving market conditions.

In the next section, we will move from theory to practice, by illustrating how this framework is applied to a Euro Govies universe. This concrete example will demonstrate how the approach effectively balances risk budgeting and active positioning, ensuring both stability and performance-driven allocation.

# 3. Application to Benchmarked Strategies

Our Active Risk-Budgeting framework is designed to be versatile and adaptable, so it can be applied to a broad range of investment strategies, from absolute return to benchmarked portfolio management. As our framework was first used by the Portfolio Managers of our benchmarked strategies, we will illustrate below its practical application for the Euro Govies universe, which represents a wide range of our benchmarked fixed-income ones.

# a. Benchmarked Portfolio Management at Candriam

### **1. Investment Process**

Candriam's core expertise lies in benchmarked portfolio management. In this type of funds, the objective is not simply to track an index but also generate outperformance while maintaining disciplined risk control. Success in this approach requires striking the right balance: being active enough to generate alpha while ensuring a structured and measured approach to risk-taking.

To generate consistent outperformance in a benchmarked environment, Candriam's portfolio managers rely on a structured, well-defined investment process that ensures that each active decision is deliberate, risk-controlled, and aligned with performance objectives. Portfolio management at Candriam is not about making isolated positions; it is about strategically allocating risk and ensuring that each position makes a meaningful contribution to long-term performance.

One of the key challenges in active benchmarked management is to define and manage risk while allowing sufficient flexibility to take advantage of market opportunities. In this environment, tracking error (TE) plays a central role, as it quantifies the portfolio's deviation from the benchmark. However, risk is not just a constraint—it is a tool for generating outperformance. When properly allocated, it allows managers to express their highest conviction views in a structured and disciplined manner, ensuring that each active position makes a meaningful contribution to portfolio returns.

# 2. Strategies Clustering

To properly allocate risk and express their convictions, Candriam's portfolio managers define a clear segmentation of the investment universe. Rather than treating assets or trade types as a static list, our portfolio managers group them into independent clusters, each representing a distinct market exposure. This clustering of highly correlated trade types or strategies reflects how they naturally analyse markets, structure investment decisions, and implement portfolio positioning. It ensures that each decision is made within a clear and consistent framework, helping to capture all relevant performance drivers while maintaining financial consistency.

This is precisely where our **active risk-budgeting framework** comes in. Indeed, our framework integrates seamlessly into Candriam's investment process, enhancing strategic risk allocation while maintaining tactical flexibility. It consists of two key steps:

- **Top-Down Risk Budgeting:** At the highest level, risk budgets are strategically allocated across clusters, ensuring that risk is distributed according to the portfolio's objectives and market conditions. This structured allocation provides a stable foundation for portfolio construction and ensures that no single exposure dominates the overall risk profile.
- **Bottom-Up Tactical Positioning:** Within each cluster, managers express their specific market convictions at the strategy level. They adjust individual positions based on fundamental analysis, macroeconomic insights, and quantitative signals, ensuring that active bets remain deliberate, well-calibrated, and aligned with the portfolio's broader risk framework.

By applying this structured approach, Candriam's benchmarked portfolios benefit from a disciplined yet adaptable framework that ensures risk is allocated efficiently, opportunities are captured effectively, and performance remains consistently aligned with investment objectives. In the next section, we illustrate how this structured yet flexible approach enables a seamless scaling of our investment framework across different bond universes.



# 3. Our Global Bonds Fund Range

Candriam's global fixed income expertise spans multiple investment universes through a wide range of funds, ranging from focused euro government bonds to broader universes such as Global Aggregate. This diversity forced us to develop a scalable and adaptable investment framework that allows us to seamlessly adjust portfolio construction as investment universes expand.

At the heart of this flexibility is our cluster-based framework, which provides a structured yet modular way of managing risk and market exposure. Rather than treating each universe as an independent entity, we build on existing clusters, ensuring that expanding from a narrower universe to a broader one is a natural and consistent extension of the same methodology.

For example, by simply adding two additional clusters-- credit and risky asset--to the existing euro government universe, we transition from a euro government to a Euro Aggregate universe (see table below). This modular approach ensures that as investment universes grow, our framework remains structured yet adaptable. Scaling up to Euro Aggregate Core+ or even Global Aggregate requires no fundamental change—just the integration of additional clusters to reflect a broader investment scope.

		FX DM	EM FX FX DM	Currencies
	Investment Grade	Investment Grade	Investment Grade	
	High Yield & Emerging Debt	High Yield & Emerging Debt	High Yield & Emerging Debt	Credit
Inflation breakeven	Inflation breakeven	Inflation breakeven	Inflation breakeven	
Sovereign, supranational, and agency bonds	Sovereign, supranational, and agency bonds	Sovereign, supranational, and agency bonds	Sovereign, supranational, and agency bonds	Government
Interest rate relative value	bond			
Curve	Curve	Curve	Curve	
Duration	Duration	Duration	Duration	
Euro Govies	Euro Aggregate	Euro Aggregate Core +	Global Aggregate	

As mentioned above, Candriam offers a wide range of funds, some of which belong to the same investment universe. However, each fund has its own specificities, objectives, constraints (such as risk tolerance or ESG criteria), and investment processes. Another key differentiator is the allocation of risk budgets across clusters, which must be tailored to the fund's strategy and mandate.

Our framework fully addresses this need, by allowing dynamic risk budget adjustments tailored to each fund's investment universe and constraints. This ensures that portfolio construction remains consistent and adaptive, while respecting the risk framework and strategic goals of each fund.

# b. Use Case: Euro Govies Strategy

#### **4. Universe of the Strategy**

The investment universe of the Euro Govies strategy consists of a diversified and carefully structured selection of fixed-income assets or trade types (strategies) which can be classified in the following (somewhat explicit<sup>1</sup>) manner:

Universe	EU_Core_2Y EU_Core_5Y EU_Core_10Y EU_Core_30Y EU_Non_Core_10Y EU_Agencies-Supra EU_Foreign_Sovereign
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It is important to stress that these strategies may involve either a single asset or a combination of multiple assets, depending on the investment objective. For example, a "Steepener" trade typically involves two bonds (long a short-term bond, short a long-term bond) and expresses a view on the steepening of the yield curve.

<sup>1 -</sup> For example "EU\_Core\_2Y" means "long a 2y govies bond form a core country"

Now and in order to efficiently allocate risk as described in the previous section, this universe is segmented into independent clusters of strategies. This segmentation is consistent with the way our portfolio managers structure their decision-making, allowing for both strategic risk budgeting and tactical positioning. We provide below an example of this clustering procedure:

Clusters	Strategies
Duration	EU_Core_2Y EU_Core_5Y EU_Core_10Y EU_Core_30Y EU_Non_Core_10Y
Interest rate relative value	Spread_EU_Core Spread_EU_Non_Core
Curve	5Y-2Y_EU 10Y-2Y_EU 30Y-10Y_EU
Sovereign, supranational, and agency bonds (SSA)	EU_Agencies-Supra EU_Foreign_Sov
Inflation breakeven	BEI_EU

### 5. Risk Management

In the following example with a Euro Govies strategy, we applied a maximum tracking error of 3%.<sup>2</sup> This threshold is designed to balance active positioning with benchmark discipline: while portfolio managers have the flexibility to capture alpha opportunities, they do so within a structured framework that limits excessive deviations from the benchmark. This TE is then allocated across clusters to ensure that risk is allocated in a consistent way with the strategy's objectives while maintaining a well-balanced and controlled exposure. Below is a reminder of the risk budget cluster attribution for a Euro Govies strategy:

Cluster	<b>Risk Budget</b>
Duration	50%
Interest rate relative value	15%
Curve	15%
SSA	10%
Inflation breakeven	10%

### **6. Convictions**

With a solid risk allocation framework in place, the next crucial step is to bring investment convictions to life, turning market insights into decisive positions that drive performance.

Within each cluster, portfolio managers assign a level of conviction -- either positive or negative - for each strategy. A positive conviction reflects confidence that the underlying strategy will outperform, while a negative conviction indicates an expectation of underperformance.

While these convictions can be expressed as a continuous score, translating them into portfolio allocations requires a structured and practical framework. A purely numerical approach can sometimes introduce unnecessary complexity and sensitivity to minor variations in views, which may not be justified in volatile market environments. Instead, we have opted for a discretised scale that

provides both clarity and robustness, ensuring that investment decisions remain disciplined and repeatable.

At Candriam, we rely on a three-tier conviction scale -- low, medium, and high -- which allows portfolio managers to express their views simply and in a consistent and effective manner. This scale ensures that higher conviction ideas receive greater allocations, while strategies with lower conviction receive proportionally less risk. The structured approach also enhances transparency, making it easier to communicate and adjust positions dynamically as market conditions evolve.

Below, we provide concrete examples of how these convictions shape targeted positioning within the Euro Govies universe, demonstrating how expert judgement translates into actionable investment decisions.

<sup>2 -</sup> Indicative data which may change over time.

Strategies	Conviction
EU_Core_2Y	Neutral
EU_Core_5Y	High conviction
EU_Core_10Y	Neutral
EU_Core_30Y	Neutral
EU_Non_Core_10Y	Medium conviction
5Y-2Y_EU	Neutral
10Y-2Y_EU	High conviction
30Y-10Y_EU	Neutral
Spread_EU_Core	Neutral
Spread_EU_Non_Core	Medium conviction
EU_Agencies-Supra	Neutral
EU_Foreign_Sov	High conviction
BEI_EU_10Y	High conviction

## 7. Asset Allocation

Now we have all the ingredients to apply our active risk budgeting approach. All we need is a robust estimate of correlations and volatilities. To do this, we use a proprietary methodology<sup>3</sup> designed to remain resilient even in volatile market environments.

Below is a pie chart showing the resulted asset allocation, i.e. how the risk is distributed within the portfolio based on the predefined risk budgets and investment convictions:

3 - Several estimation methods have been tested.

### Key Observations:



• **Unallocated Risk:** this corresponds to strategies with neutral convictions, 47% in our specific example implying a consumed tracking error of 1.59% of the 3% allowed by constraint. This unallocated risk, leaves some flexibility to adjust positions and increase exposure in the future if convictions strengthen as markets move.

• **Risk Distribution Across Clusters:** As expected, clusters with higher risk budgets consume more risk, even when convictions within cluster individual strategy are lower. This is consistent with our top-down allocation process, where risk is allocated proportionally based on strategic importance and fund objectives.



Clusters' Risk Breakdown (rescaled without unallocated risk)



• **Risk Distribution Across Clusters:** As expected, clusters with higher risk budgets consume more risk, even when convictions within cluster individual strategy are lower. This is consistent with our top-down allocation process, where risk is allocated proportionally based on strategic importance and fund objectives.







### Hybrid Proprietary Methodology to Boost Fixed Income Portfolio Resilience

At Candriam, within the fixed income business unit, we have developed a proprietary, hybrid and innovative allocation methodology that integrates the strengths of existing portfolio allocation approaches while addressing some of their limitations. Rooted in a risk-based foundation, our approach rigorously balances risk contributions to enhance portfolio resilience against market fluctuations.

One of its key innovations is the way it incorporates investment convictions. We have outperformed traditional return-based approaches, which are highly sensitive to expected returns, by translating portfolio managers' views in a structured and robust manner, without requiring precise return forecasts. This ensures greater stability, reliability, and adaptability in dynamic market environments.

Designed for practical application, this methodology integrates seamlessly into Candriam's fixed income investment process, as demonstrated through its successful implementation in the Euro Govies universe. Moreover, its scalability makes it applicable across to all our fixed income strategies, from benchmarked to absolute return ones. In addition, this model is devoted to be our flagship methodology for all our fixed income asset allocation needs.



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