

Rebalancing as a component of efficient portfolio implementation

Structured Solutions Research

Pierre Laramée, MMF, CFA, Executive Director and Portfolio Manager, Global Beta & Structured Solutions

Patrick Thillou, Managing Director and Head, Trading and Beta Management

Nicholas Russell, Director, Global Beta & Structured Solutions

Approximate reading time: 15 minutes

September 2025

This paper is part of a series of Structured Solutions research publications that highlight CIBC Global Asset Management's (GAM) library of outcome-oriented investment solutions, including our advanced portfolio design, financial engineering, derivative and market structure capabilities.



Summary

Rebalancing decisions can significantly influence long-term investment outcomes but are often overlooked or treated as either an afterthought or an operational task. At CIBC GAM, we view rebalancing decisions as essential components of strategic portfolio design.

In this paper, we highlight the breadth of CIBC GAM's portfolio rebalancing expertise, and provide investors with guidance on three critical rebalancing decisions:

- 1. When to rebalance:
- 2. How to rebalance;
- 3. How to integrate illiquid assets within a portfolio rebalancing framework.

Our embrace of purposeful portfolio rebalancing is exemplified in the management of the CIBC GAM Portfolio Solutions platform, for which extensive rebalancing capabilities are an integral component of our commitment to deliver client-centric investment outcomes.

The Global Beta & Structured Solutions Team helps investors solve for their unique investment and implementation objectives. Drawing on a broad spectrum of financial instruments and engineering methods, our mission is to construct solutions that deliver specific outcomes. As a result, we facilitate a distinct approach to portfolio construction that helps investors maximize their probability of success across diverse market conditions.

Portfolio rebalancing: An overlooked opportunity

The strategic asset allocation - between stocks, bonds, cash and alternatives - of any investment portfolio is typically the most important determinant of long-term performance. The initial allocation is set to align with an investors risk, return and liquidity objectives. However, as market conditions fluctuate, portfolio weights of each allocation drift away from long-term targets, necessitating periodic rebalancing back to the original (or revised) allocation. Despite the need, few investors optimize rebalancing strategies, introducing an important source of inefficiency - and opportunity - into portfolio implementation.

At CIBC Global Asset Management (GAM), we have developed rebalancing solutions tailored to our clients' needs. These solutions can be implemented either within fully funded portfolios or separately through highly liquid derivatives in an overlay framework minimizing the need to modify underlying portfolio holdings.

There is no single approach to rebalancing. The appropriate strategy is informed by client-specific return and risk tolerances and desired portfolio outcomes. Over the years, we have successfully collaborated with numerous investors (both retail and institutional) in achieving their portfolio rebalancing objectives, as part of a variety of initiatives. This can be accomplished within the management and implementation of completion portfolios; within the execution of OCIO (Outsourced Chief Investment Officer) mandates; with the use of liquid proxies for the investment of future capital calls; for the rebalancing of illiquid allocations; within the facilitation of portfolio transition operations; within SMA (Separately Managed Account) channels; and simply by advising CIBC GAM clients.

When to rebalance

Determining when to rebalance and bring portfolio allocations back to target is a crucial aspect of designing an effective rebalancing solution. Several approaches can be considered (Chart 1). To illustrate each approach, let's consider a straightforward portfolio composed of 60% Canadian equities and 40% Canadian bonds. As we will demonstrate, there is value in adopting more sophisticated approaches to rebalancing.

Chart 1 - Approaches to rebalancing frequency

Predefined frequency	Symmetric thresholds	Asymmetric thresholds	Dynamic thresholds
Rebalancing can be implemented based on a predetermined schedule, such as daily, monthly, quarterly, or annually. This approach is primarily operational in nature.	This method utilizes predefined symmetric thresholds, for example triggering rebalancing when the portfolio's equity allocation deviates from its target weight by ±2%. It acknowledges that allocation drifts due to market price trends can be beneficial (for example, investment gains as the portfolio's equity allocation passively increases due to long-term outperformance of public equity over bonds).	Predefined asymmetric thresholds allow for greater deviations in equity overweight positions compared with underweights. For instance, rebalancing back to target may be triggered when the portfolio's equity allocation reaches an overweight of +4% or an underweight of -1%. This approach recognizes that positive equity price trends are more common than downward trends, and that price declines are typically short-lived.	In this case, thresholds can be made conditional on prevailing market conditions, set further apart in periods of low market volatility during which persistent price trends are more likely, and conversely set closer together when volatility is elevated and market reversals are more frequent. Dynamic thresholds may be further enhanced by incorporating other market signals and/or forecasting capabilities.

The information was prepared by CIBC GAM.

Global Beta & Structured Solutions Team



Investment philosophy

We believe that financial engineering can be used to provide a reliable means of achieving defined investment objectives through different market environments.



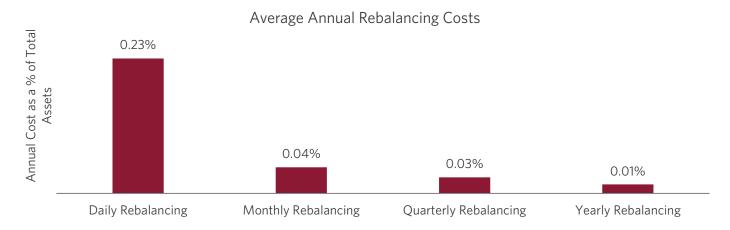
Investment approach

Our team utilizes an objectives-led engagement framework with a focus on understanding and achieving investors' specific, measurable goals. We use financial engineering to create outcome-based solutions by combining suitable payoffs and factor exposures from our extensive and expanding library of capabilities.

Predefined frequency

Investors must consider the trade-offs between the benefits and costs of rebalancing frequency. Not surprisingly, trading costs can have an important impact on portfolio performance (Chart 2).

Chart 2 - The cost of daily rebalancing is significant



The information was prepared by CIBC GAM using data from the following third party data provider: Bloomberg. Data sample, as at July 2025: January 2000 – July 2025. We assume a transaction cost of 10 basis points.

Threshold based rebalancing

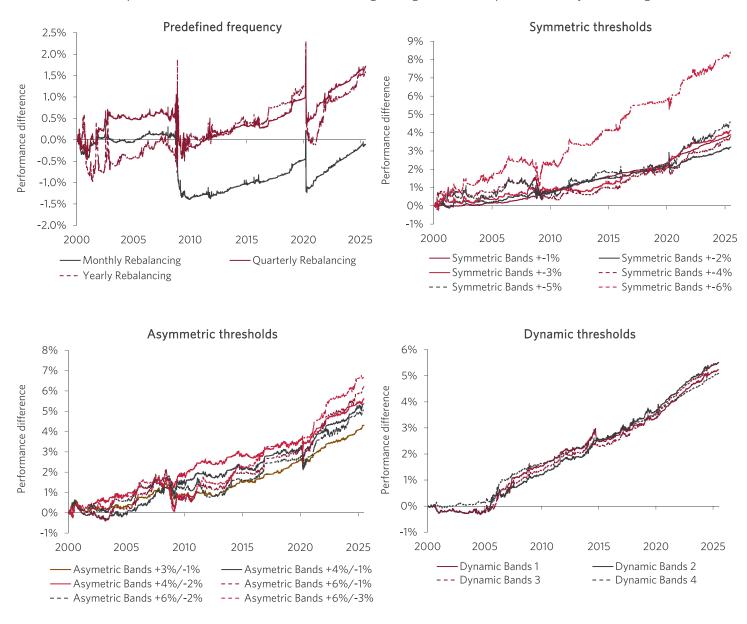
In this case, rebalancing the simple 60/40 equity/bond portfolio is triggered when the allocation of either asset class extends beyond a specified threshold. These thresholds can be symmetric, asymmetric, or dynamic (Chart 3).

The primary performance driver of these rebalancing strategies is their ability to capitalize on price trends through asset weight drifts. Our results show threshold based rebalancing to be superior to periodic rebalancing across a range of scenarios.

When evaluating fixed symmetric thresholds, wider rebalancing bands have generally led to better outcomes. In the case of asymmetric thresholds, broader thresholds on the upside coupled with narrow thresholds on the downside yield superior historical returns. These results are reflective of the observed tendency of asset markets to trend higher over time and to rebound after temporary selloffs. It is, however, important to acknowledge that fixed thresholds can exhibit path dependencies, which may influence outcomes. This effect is more pronounced with symmetric rebalancing bands; for instance, increasing rebalancing bands from ±5% to ±6% improves outcomes significantly, reducing the statistical significance of the results.

Dynamic thresholds have delivered more reliable outperformance across a range of parameter settings, while historically demonstrating statistical significance. The results in Chart 3 pertain to dynamic thresholds spanning a range of ±1% to ±6%. When volatility is low (high), rebalancing thresholds are set further apart (closer together). Dynamic thresholds contribute to smoother portfolio return outcomes by effectively minimizing asset class over- and under-weighting during periods of elevated volatility. By reducing deviations from target exposures when market risk is high, this approach helps maintain portfolio alignment when it is often most desired.

Chart 3 - Historical performance of various threshold rebalancing strategies relative to predefined daily rebalancing.



The information was prepared by CIBC GAM using data from the following third party data provider: Bloomberg. Data sample, as at July 2025: January 2000 – July 2025.

The results presented thus far are based on a straightforward 60/40 equity/bond portfolio. In reality, our threshold rebalancing strategies are designed to accommodate more complex asset mixes. These strategies can be tailored to meet the unique requirements of each portfolio, ensuring alignment with specific investment goals. The management of the CIBC GAM Portfolio Solutions - which encompasses portfolios with diverse objectives, risk tolerance, and asset mixes - illustrates our capabilities to delivering desired investment outcomes for various client profiles. Sophisticated rebalancing capabilities are an integral component of this program.

How to rebalance

This section highlights the specific transactions and financial instruments employed to realign portfolio allocations back to target levels (Chart 4).

Chart 4 - How to rebalance

Physical	This approach involves selling physical portfolio holdings of the overweight asset classes to purchase the physical assets of the underweight classes. Certain physical assets may be less liquid and costly to transact frequently.
Synthetic	This method utilizes derivative instruments to achieve the desired changes in asset class exposures. Rebalancing can then occur through an overlay framework. Due to the high liquidity of these derivative instruments, rebalancing can be executed quickly and at lower cost. To keep derivative exposures cost-effective and minimize basis risk from performance mismatches between derivatives exposures and physical assets, it is essential to use the right instruments and reference assets. At CIBC GAM, we provide the required expertise and infrastructure, including best execution, trading documentation, collateral and margin management, and comprehensive reporting.
Hybrid	This approach combines prompt synthetic rebalancing at a lower cost, followed by a gradual cost-efficient transition from derivative positions to physical exposures.
Alternative methodologies	For investors seeking a middle-ground rebalancing outcome – particularly when there is hesitation to fully rebalance an equity overweight position back to target due to limited conviction about future market direction, and/or in an effort to minimize regret – alternative strategies may be explored. A common practice is to partially rebalance, such as adjusting the equity allocation halfway back to its target. Alternatively, rebalancing can be achieved through a costless option structure. Rather than rebalancing linearly by selling the overweight equity position or using index futures to offset the overexposure,

exposure and can contribute to managing risk more effectively (Chart 5).

investors may implement a put-spread collar option strategy. This approach provides non-linear market

The information was prepared by CIBC GAM.

Global Beta & Structured Solutions Team at a glance*



\$74.8+ billion

assets under administration (AUA)



team members

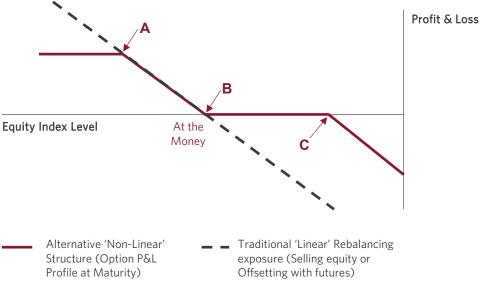


years of industry experience on average*

^{*} As at June 2025.

Chart 5 - Portfolio rebalancing an overweight equity can be effectively achieved using an option-based alternative approach. Conversely, the same principles apply when rebalancing an underweight equity.

Rebalancing position exposures offsetting an overweight equity ...



The information was prepared by CIBC GAM, July 2025.

To evaluate the potential outcomes of this alternative structure, let us examine all possible scenarios following its implementation:

Scenario 1: Equity index price falls between A and B

If the equity index price declines and ends between A and B at the maturity of the options, the structure generates a profit offsetting losses from the equity overexposure, an outcome equivalent to having rebalanced the overweight position back to target at the time the option structure was implemented. In this case, the limited decline in equity prices results in the same outcome as having fully rebalanced, effectively rightly closing the equity overexposure.

Scenario 2: Equity index price falls below A

If the equity market ends below A at the maturity of the options, it is as though the overweight equity position was rebalanced and closed only down to A. In this scenario, the more significant decline in equity prices results in rightly closing the overweight equity exposure down to A but re-entering an overweight equity exposure below A. As a result, this structure is only partially beneficial in this case.

Scenario 3: Equity index price rises between B and C

If the equity market index ends between B and C at the maturity of the options, the structure itself neither generates gains nor incurs losses. Instead, profits are realized from the continued overweight position in equities. In this scenario, the outcome mirrors that of not rebalancing, allowing the investor to fully participate in the equity market's gains. Thus, a moderate rise in equity prices results in an outcome equivalent to maintaining the overweight exposure, which is advantageous in a rising market

Scenario 4: Equity index price rises above C

If the equity index ends above C at the maturity of the options, it is as though the equity overweight exposure was not rebalanced up to C. In this case, the significant increase in equity prices results in rightly retaining the overweight equity exposure up to C but prematurely closing the overweight position at C, thereby missing out on the additional equity market gains. As a result, in this case, this structure offers only partial benefit.

The balanced outcome provided by this non-linear approach may be well-suited for a range of investors. We recommend considering this solution as a valuable component of an investor's rebalancing toolkit.

Rebalancing illiquid asset classes

Illiquid assets cannot be transacted at will due to their lack of liquidity. Additionally, due to market opacity and infrequent trading, transparent pricing is unavailable and their valuations are often based on models rather than market transactions. We can consider several approaches to rebalancing illiquid assets (Chart 6).

Chart 6 - Approaches to rebalance illiquid asset classes.

Traditional	This approach allocates fixed weights to both liquid and illiquid asset classes. The advantage is its simplicity and familiarity. However, due to the illiquidity of a subset of a portfolio, it is not always feasible to rebalance back to target allocations.
Proxy	Here, fixed weights are assigned to all liquid and illiquid asset classes, but liquid proxies are utilized to rebalance illiquid assets to their targets when necessary, including temporarily investing future capital calls. The primary advantage of this strategy is the ability to rebalance as desired. However, there may be basis risk between the illiquid assets and their liquid proxies.
Parallel	In this case, liquid and illiquid assets are considered separately. Liquid asset classes are allocated weights that sum to 100% and are rebalanced using one of the approaches already explained. Illiquid assets, on the other hand, are managed independently and are excluded from regular rebalancing activities. When adjustments are required, they are gradually realigned within their target allocation range, with full consideration given to the constraints and implications of their illiquidity.
Reference portfolio	This approach is typically employed within a total portfolio management framework. It begins by defining

a portfolio of liquid asset classes with target allocations, referred to as the reference portfolio. Illiquid assets are then introduced with the goal of adding value relative to this reference portfolio. When an investment in an illiquid asset is made, it replaces some combination of existing liquid assets from the reference portfolio that have similar risk-return characteristics to the newly acquired illiquid investment. Thus, these liquid assets serve as proxies and benchmarks for the illiquid investment and are sold to accommodate the newly acquired illiquid asset. For example, a private equity investment in the U.S. utility sector could be financed by selling an equivalent amount of U.S. public utility stocks (either the sector index as a whole or specific names within the sector) that has risk-return characteristics similar to the private investment. This approach is both elegant and relevant for a diverse range of investors. At CIBC GAM, we possess the operational capacity needed to implement this strategy effectively, along with the expertise to identify and define suitable liquid proxies for illiquid investments.

The information was prepared by CIBC GAM.

How we can help

Rebalancing decisions should never be treated as an afterthought. Selecting an appropriate approach requires strategic consideration to align with the unique needs and desired outcomes of each investor.

At CIBC GAM, we bring extensive expertise and experience in implementing a wide range of rebalancing solutions. Whether it involves determining how to rebalance, when to rebalance, or incorporating illiquid investments into a rebalancing strategy, we have successfully guided numerous investors toward achieving their desired outcomes. Additionally, we have developed the necessary capabilities to seamlessly implement various rebalancing solutions.

Reach out to your CIBC GAM representative to discuss how we can partner to design and implement a purposeful rebalancing strategy in your client-focused outcome portfolios.

About the authors



Pierre Laramée, MMF, CFA **Executive Director and Portfolio Manager** Global Beta & Structured Solutions



Patrick Thillou Managing Director Trading and Beta Management



Nicholas Russell Director Global Beta & Structured Solutions



About CIBC Asset Management

At CIBC Asset Management, we believe that every customized investment solution begins with research and rigour. We specialize in a variety of investment solutions such as equities, fixed income, currency management, liability-driven investments, asset allocation, and responsible investments.

Across a spectrum of investment solutions, we commit to robust research. Dedicated sector and regional analysts focus on industry research and securityspecific idea generation. Our investment professionals leverage deep and diverse expertise by sharing proprietary research across asset-class teams. By sharing insight across asset class teams, we maximize opportunities to add value to our client portfolios.

The views expressed in this material are the views of CIBC Asset Management Inc. as of August 2025 unless otherwise indicated, and are subject to change at any time. CIBC Asset Management Inc. does not undertake any obligation or responsibility to update such opinions. This material is provided for general informational purposes only and does not constitute financial, investment, tax, legal or accounting advice, it should not be relied upon in that regard or be considered predictive of any future market performance, nor does it constitute an offer or solicitation to buy or sell any securities referred to. Individual circumstances and current events are critical to sound investment planning; anyone wishing to act on this material should consult with their advisor. The material and/or its contents may not be reproduced without the express written consent of CIBC Asset Management Inc. Past performance may not be repeated and is not indicative of future results.

Forward-looking statements include statements that are predictive in nature, that depend upon or refer to future events or conditions, or that include words such as "expects", "anticipates", "intends", "plans", "believes", "estimates", or other similar wording. In addition, any statements that may be made concerning future performance, strategies, or prospects and possible future actions taken by the fund, are also forward-looking statements. Forward-looking statements are not guarantees of future performance. These statements involve known and unknown risks, uncertainties, and other factors that may cause the actual results and achievements of the fund to differ materially from those expressed or implied by such statements. Such factors include, but are not limited to: general economic, market, and business conditions; fluctuations in securities prices, interest rates, and foreign currency exchange rates; changes in government regulations; and catastrophic events.

The above list of important factors that may affect future results is not exhaustive. Before making any investment decisions, we encourage you to consider these and other factors carefully. CIBC Asset Management Inc. does not undertake, and specifically disclaims, any obligation to update or revise any forward-looking statements, whether as a result of new information, future developments, or otherwise prior to the release of the next management report of fund performance.

"Bloomberg®" is a service mark of Bloomberg Finance L.P. and its affiliates, including Bloomberg Index Services Limited ("BISL"), the administrator of the indices (collectively, "Bloomberg") and have been licensed for use for certain purposes by CIBC Asset Management Inc.. Bloomberg is not affiliated with CIBC Asset Management Inc., and Bloomberg does not approve, endorse, review, or recommend any CIBC Asset Management Inc. products.

[®] The CIBC logo and "CIBC Asset Management" are registered trademarks of CIBC, used under license.