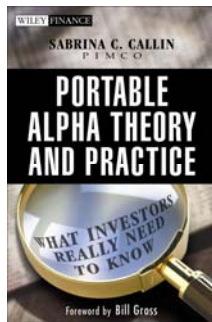


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Announcing the Publication of a New PIMCO Book: Portable Alpha Theory and Practice: What Investors Really Need to Know

With Foreword by Bill Gross ([click here to read](#))



Executive Summary by [Sabrina Callin, CFA, CPA](#)

Although PIMCO may be best known as a fixed income manager, it was actually PIMCO that introduced the first portable alpha *equity* strategy back in the mid-1980s. Our focus on investor solutions did not stop there, of course. Over the years we have expanded our portable alpha suite, in addition to our broader set of alternative investment solutions, to include a variety of alpha-beta combinations as part of our ongoing focus on client-driven investment innovation.

The idea that portable alpha strategies may provide a solution that enables investors to meet or exceed return targets is certainly appealing, as are the potential diversification benefits. In addition, for investors focused on liability-driven investing (LDI), portable alpha applications may help reduce liability-relative risk. Still, portable alpha strategies do not defy the basic laws of risk and return. And, when compared to traditional stock and bond investments, many portable alpha structures are much more complex, and the risks can be more challenging to measure and monitor over time. However, the end result may be well worth the extra time and effort involved in understanding, evaluating, and investing in portable alpha strategies.

What exactly is portable alpha? More than anything, it is an investment application which can be employed in a variety of ways to generate potential value-added for investors. That said, portable alpha definitions vary substantially depending on the person providing the explanation. This certainly keeps things interesting but may also lead to confusion. The potential for confusion may be further compounded by the sometimes casual and theoretically incorrect use of the terms alpha and beta in a portable alpha and alpha-beta separation context, in addition to the inherent investment and operational complexities.

Our goal in writing this book is to provide investors with a practical guide to portable alpha theory and practice, with a focus on the concepts that we believe are most important from the standpoint of investors. In effect, we are attempting to help investors avoid potential pitfalls by successfully navigating the benefits and complexities of portable alpha, available sources of return and associated risks, related myths and realities, and the key aspects of implementation. Portable alpha is a powerful investment application, but just like investing in general, it is not nearly as simple in practice as it may sound in theory.

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Portable Alpha Theory and Practice: An Overview

A key overriding theme presented throughout the book is the importance that investors not lose sight of the potential for a material increase in risk in addition to the potential for attractive incremental return. After all, beyond all the excitement surrounding portable alpha and alpha-beta separation, investors are still held to the fundamental underpinnings of prudent investment management.

Investing has always been about the relationship between risk and return – and it is generally recognized that the key to optimal investing is the identification, measurement and diversification of risk. Today, however, investors appear more open than ever to new sources of risk together with atypical investment strategies, including portable alpha and related concepts like alpha-beta separation, designed to provide higher returns than those expected from traditional asset classes and strategies. Why? This broad-based mentality shift appears to have been prompted, at least in part, by the 2000-2002 equity market sell-off and simultaneous decline in bond yields. In addition to the painful capital losses many experienced during this period, after years of double-digit equity market returns, a number of investors were faced with prospective return targets that appeared difficult to achieve using traditional asset classes and strategies.

Although portable alpha strategies have been around for more than two decades, the portable alpha investment application has received a significant amount of attention in recent years, presumably because of the potential to both increase returns and improve diversification. In certain cases, portable alpha strategies may even result in a simultaneous increase in expected return and decrease in downside risk relative to more traditional investment strategies, which is undeniably a powerful combination. However, there are a number of inherent complexities associated with even the most basic, long-standing portable alpha approaches and certainly with many of the newer, multi-faceted approaches that incorporate multiple layers of leverage, independent managers and novel borrowing arrangements. As a result, it is important that investors carefully consider not just the potential benefits, but also the costs, risks and the practical aspects of implementing the portable alpha investment application.

The term *portable alpha* is generally used to describe an investment approach that collateralizes derivatives-based market exposure (*commonly referred to as beta*) with an unrelated investment in a strategy or set of strategies designed to generate attractive risk-adjusted return (*alpha*). The key building block of the portable alpha investment application is the availability of a liquid, cost-effective derivatives market for the desired beta exposure. An investor can then finance the beta exposure, typically at a money market-based interest rate, while investing all (or a majority) of the initial capital in the alpha strategy.

The ability of a portable alpha strategy to deliver returns that exceed the return of the associated market beta is therefore predicated on the alpha strategy or strategies

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delivering a return that exceeds the money market-based interest rate cost. While there are a vast number of strategies available that are designed to generate higher returns than money market investments, it is important for investors to recognize that investment strategies that provide a material return over cash are also likely to involve material additional risk of some type, regardless of whether an investor or provider chooses to describe the primary risk factors as betas or the entire return as alpha. Certainly it is critical to carefully understand the sources of return and associated risk factors – and also to make sure that the investment manager has the requisite skill set. However, the key question in a portable alpha context is not necessarily what is alpha and what is beta? (true alpha can be very difficult to identify!). Rather, the real question is: will the combination of the derivatives-based market exposure and the alpha strategy likely produce the desired return profile across different market environments, with an acceptable level of downside risk?

The portable alpha investment application is very powerful in that it allows investors to incorporate a degree of diversification that is not realistically possible in a traditional asset management framework and also offers investors the potential to benefit from a much broader range of manager skill sets to generate attractive alpha. However, this doesn't mean that portable alpha strategies universally offer an improved risk/return profile relative to traditional strategies. While an improved risk/return profile is a reasonable goal, given the potential diversification and alpha benefits of the portable alpha concept, it is important that investors recognize that the increased expected return may be accompanied by a moderate and even significant increase in risk. Of course an increase in risk is not necessarily bad at face value. Rather, the question is whether the potential additional returns of a portable alpha strategy (or any strategy, for that matter) are coupled with an acceptable level of risk in normal or atypical market conditions, on a stand-alone basis and as part of a broader asset allocation or risk budget.

Interestingly, two of the most important concepts underlying portable alpha (and related ideas, such as alpha-beta separation) are actually central underpinnings of modern portfolio theory. The first concept is borrowing as a means to increase return for investors who have greater risk tolerance. *(If you stop and think about it, there is not a single application that falls under this now very broad portable alpha umbrella that does not involve some form of borrowing as the primary enabler to providing additional returns beyond the return of the reference market beta).* The second is diversification as a means to increase return at the same level of risk or decrease risk at the same level of return. In theory, borrowing permits an investor to increase the risk level of an investment portfolio in a relatively straightforward manner: by borrowing at the theoretical risk-free rate¹ and investing the borrowed capital in the existing, optimally diversified market portfolio. In practice, however, the existing portfolio is not likely to be the optimally diversified market portfolio referenced in modern portfolio theory. As a result, borrowing can be used not just to increase the portfolio's potential risk and expected return but also in efforts toward greater diversification, a more efficient risk/return trade-off, and potentially even a reduction

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in risk. This is possible because of the potential for improvements on *two* fronts – diversification and alpha – and this is the real power of portable alpha.

Another key concept underlying the portable alpha investment application is *leverage*. Portable alpha applications typically employ the use of derivatives and at least one form – if not multiple forms – of leverage as investors typically have 100% exposure to the alpha strategy in addition to the beta market for every unit of capital invested. Both derivatives and leverage may produce powerful risk reduction, return, and other benefits for investors. However, as has been proven far too many times, if investors and their managers do not understand and/or do not carefully monitor and disclose the potential risks that may be associated with both leverage and derivatives, the results can be disastrous.

The same is true of portable alpha strategies – including strategies that focus on the separation of alpha and beta based on the same underlying concepts. This does not mean that portable alpha strategies are riskier than other investment strategies that seek to outperform equities, bonds or other market returns. Some are and some are not, and even those that are may offer an improved risk/reward trade-off for investors. It simply means that investors must explicitly acknowledge the intricacies of portable alpha approaches and adjust the evaluation and risk monitoring process accordingly. We hope that this book – in part or in whole – provides useful background for investors to do just that.

Chapter-by-Chapter Review of Topics Addressed in the Book:

Chapter 1 – Overview and Key Concepts introduces the major concepts behind portable alpha, including borrowing and leverage, and also addresses the confusion surrounding alpha and beta. It also provides a chapter-by-chapter overview of the book as a whole.

Chapter 2 – Portable Alpha Definitions and Trends discusses the portable alpha investment application as it is most broadly defined, including the derivatives-based market exposure and the investment strategy, or alpha engine, in which capital is invested. The primary benefits of *porting* alpha are reviewed, along with portable alpha strategy examples, the original development and evolution of the concept, and some common misconceptions.

Chapter 3 – Back to the Basics: Investments 101 reviews the fundamentals of investing and modern portfolio theory that are especially relevant as background for the portable alpha investment application, with a focus on the concepts of risk and return and the benefits of diversification. As innovative and new as many deem the portable alpha investment application to be, it is remarkable just how much of the underlying investment theory is best explained by some of the principles that were introduced almost half a century ago and are still as relevant today as ever.

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Chapter 4 – Asset Allocation and Portable Alpha focuses on asset allocation and other relevant ideas when considering different portable alpha applications. The chapter reviews portable alpha implementation at the strategy and portfolio level as an important development in asset management. Challenges associated with volatility and correlation measures are addressed, as is the need for sustainable spending as an investment objective. Equity risk premia are specifically analyzed, given the dominance of equity risk in most investment portfolios. Finally, investors are encouraged to explore the potential benefits of new approaches to asset allocation and risk budgeting.

Chapter 5 – Alpha, Beta, and Alpha-Beta Separation clarifies the definition and context of the terms *alpha* and *beta*, and alpha-beta separation with the goal of helping investors distinguish between the actual definitions and the potentially misleading marketing-oriented uses of the terms. In addition, the chapter provides examples of alpha and beta calculations to illuminate the difference between alpha and excess return, and also highlights potential issues with the separation of the alpha and beta, including the interdependence of alpha and beta, the difficulties in identifying true alpha, and other possible complexities and associated costs and fees.

Chapter 6 – Global Sources of Portable Alpha, Associated Risks, and Active Management looks at the global sources of (portable) alpha and the nearly limitless choice of risk factors and investment strategies that investors can access to outperform a money market (cash) rate and therefore provide incremental return in a portable alpha context. Included in this chapter is a review of the primary alpha strategies employed in a portable alpha context and the associated risk factors. Equity, fixed income, and different styles of hedge funds are covered, along with the potential value of skilled active management and key strategies for exploring potential value in the global marketplace. Finally, a common base line is presented for evaluating potential alpha sources.

Chapter 7 – Derivatives-Based Beta Management discusses the risks, costs and complexities associated with maintaining market exposure using derivative instruments. The similarities between derivative instruments and other types of borrowing arrangements are explored up front as a means to better understand the basics. The chapter also specifically addresses futures and swaps markets together with the importance of skill and operational risk management when it comes to executing and maintaining derivatives positions.

Chapter 8 – Portable Alpha Implementation provides investors a framework for understanding the increasing variety of portable alpha implementation options. The different approaches are broken down into components: the alpha strategy investment, the beta derivatives exposure, liquidity source(s), and risk management, monitoring and reporting. In addition, three basic approaches to portable alpha

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implementation are described: a fully *integrated* approach, a completely *segregated* approach, and a third *semibundled* category that combines aspects of both.

Chapter 9 – The Real Holy Grail: Risk Measurement and Management covers risk measurement and management in detail, which is critically important given the inherently levered nature of portable alpha strategies. Emphasis is given to the importance of understanding and controlling the risk factors that drive the performance and the downside risk of both the alpha and beta components. This chapter also addresses the shortcomings of different statistical risk measurement tools that are based on the assumption of normally distributed returns or that ignore the risks that some types of portable alpha strategies may face in periods of crisis. Stress testing is also discussed as a risk measurement tool that may be especially relevant for portable alpha investment applications.

Chapter 10 – Liability-Driven Investing provides an overview of LDI, including the landscape, objectives, evolution and relevant examples of how different investors are approaching the subject. It highlights the increasingly interrelated nature of the key concepts underlying portable alpha and LDI approaches that incorporate duration overlays are also highlighted, as is a further extension of portable alpha specific to LDI.

Chapter 11 – Portable Alpha Theory and Practice: Wrapping It Up summarizes the central themes and concepts presented throughout the book, with the goal of helping investors navigate the theory and practice and realize the powerful potential of portable alpha.

Epilogue by Chris Dialynas – Portable Alpha – The Final Chapter: Schemes, Dreams, and Financial Imbalances: “There Must Be More Money” ([click here to read](#))

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The PIMCO Team of Contributing Authors



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1 All investments carry some level of risk.

Past performance is not a guarantee or a reliable indicator of future results In a portfolio context alpha is a measure of risk-adjusted excess performance and is calculated by comparing the returns of the investment portfolio to the returns of a benchmark portfolio that reflects the general characteristics of the investment portfolio and, in particular, is similar in terms of risk exposure. Beta is a measure of price sensitivity to market movements. Investing in the bond market is subject to certain risks including market, interest-rate, issuer, credit, and inflation risk. Derivatives may involve certain costs and risks such as liquidity, interest rate, market, credit, management and the risk that a position could not be closed when most advantageous. Investing in derivatives could lose more than the amount invested. The use of leverage may cause a portfolio to liquidate positions when it may not be advantageous to do so to satisfy its obligations or to meet segregation requirements. Leverage, including borrowing, may cause a portfolio to be more volatile than

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if the portfolio had not been leveraged. There is no guarantee that these investment strategies will work under all market conditions and each investor should evaluate their ability to invest for a long-term especially during periods of downturn in the market. Diversification does not ensure against loss.

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