
BOOK REVIEW



Mark Kritzman, Senior Editor

BEYOND DIVERSIFICATION: WHAT EVERY INVESTOR NEEDS TO KNOW ABOUT ASSET ALLOCATION

Sébastien Page

(Reviewed by Cel Kulasekaran)

Sébastien Page has spent a considerable amount of his career engaging with academics and practitioners across the globe, with rigor and eloquence. His body of research publications in asset allocation are profound and material. In *Beyond Diversification*, the author sets out to frame his breadth and depth of knowledge with theoretical and practical wisdom in an accessible form for us, investors – managers and asset owners alike.

Page's voracious curiosity is evident from his work in practitioner journals and is even more conspicuous in his book. *Beyond Diversification* is filled

with practical insights and important principles in asset allocation. All too often, analysts can get inundated with dogmatic views on investment science, as it is easy to miss the broader perspective when the mechanics of daily responsibilities take precedent. This is the core strength of Page's book, providing intuition to the science by reconciling the disparate ideas and conclusions across a wide array of research topics in such a digestible and relatable manner.

Page divides the book into three parts: return forecasting, risk forecasting, and portfolio construction. In each part, the author highlights key foundational and practical ideas while examining its nuances. In part one, the author starts with the Capital Asset Pricing Model and supports its use in practice, but not without divulging a deep appreciation of its

shortcomings. Page provides historical context and shares his personal approach to consuming the model – with care and respect. In this introduction and throughout the book, the author motivates and reminds investors that there is a symbiosis between science and art. Page emphasizes the importance of process and judgement as a necessary complement to the implementation of quantitative science in finance. To echo the author's anecdote with Kant's maxim — theory without practice is empty, practice without theory is blind.

The author continues the section by examining valuation models, macro signals, and momentum — each with their own treatment of practitioner insights, again, highlighting the balance of science and intuition. Multi-asset investors will find some of the author's shared anecdotes validating, a

corollary to his broad career experiences in an academic think-tank, a fixed-income powerhouse, and more recently a multi-asset manager.

In part two, Page dives into risk forecasting. There is an overview of risk-based strategies, the perils of mismeasuring risk, the characteristics of correlations (the basic root of diversification), tail risk, scenario analysis, and a few moments on fat tails. Of these, his analysis on the mismeasurement of risk is particularly instructive and timely for investors who are too often focused only on end of horizon outcomes.

In part three, Page builds upon risk and return principles and applies them for portfolio construction. The section begins with an introduction to the

building blocks of portfolio construction: asset classes and risk factors. The body of work that debates the practicality of parametric optimization in finance is plentiful, and the conclusion eludes some: use asset classes for portfolio construction, factors to assess diversification, and employ optimization models with judgment and experience. Page delivers on the title of his book, going beyond the conventional portfolio construction theory and methods to share novel insights on Full-Scale optimization and its genesis — a facsimile message between Paul Samuelson and Mark Kritzman (a co-author with Page on the resulting research studies on utility maximization).

Page concludes *Beyond Diversification* with applications

to strategic asset allocation incorporating the ideas and processes disseminated in his book. He outlines examples for target date funds, multi-asset income portfolios, and diversified global strategies that would be applicable to most investors. The author summarizes his top ten rules of thumb in practice at the end of each section respectively — a guide that both initiates and seasoned practitioners will find useful.

Sébastien Page has accomplished a formidable task in framing information from various academics and practitioners with his insights in this intuitive and comprehensive book. Readers will find *Beyond Diversification* accessible and enjoyable.