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BOOK REVIEW

Andrew W. Lo: Hedge Funds—An Analytic Perspective

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Hedge Funds—An Analytic Perspective, by Andrew W. Lo, Professor at MIT Sloan School of Management, is a well-composed presentation of analytics inherent to the field of hedge funds. Based on recent research, the book covers up-to-date concepts that assist in understanding the principles of hedge funds strategies and performance valuation.

The monograph is chiefly based on published academic papers but practitioners will find the reading quite valuable as well, although challenging. Of particular note are Chapter 8, which aims at the implementation of an investment process, and Chapter 10, which provides insight into the turmoil of the quant industry in August 2007.

The first chapter introduces the main differences between investing in hedge funds and investing in mutual funds. After a brief excursion into the general properties of hedge funds investing with regard to institutional investors, the author addresses tail risk, nonlinear risk, illiquidity, and serial correlation as an explanation for the special treatment for hedge funds. In Chapter 2, Lo comprehensively presents summary statistics of the databases he uses. The main sources are aggregated hedge fund index returns from CS/Tremont and individual hedge fund returns provided by Lipper TASS. The main body of this chapter covers basic properties of the data set with a special section on attrition rates. In his landmark paper of 2004 (coauthored with Getmansky and Makarov), "An Econometric Analysis of Serial Correlation and Illiquidity in Hedge-Fund Returns," Lo links serial correlation and smoothed returns to illiquidity effects. Chapter 3 presents the arguments for the link and an economic model for smoothed returns. In addition, he introduces and contrasts unadjusted and adjusted Sharpe ratios. In Chapter 4, Lo extends the mean-variance framework of

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portfolio optimization by introducing liquidity into the process. The effects of liquidity constraints are illustrated by applying the concept to US stocks and hedge fund indexes. Chapter 5 introduces the reader to the field of hedge fund performance attribution. Lo discusses how regressing the performance of individual hedge fund strategies on various tradable risk factors allows the derivation of a more accurate estimation of the fund manager's skill level. In Chapter 6, Lo introduces a new measure of active investment management. The active/passive (AP) decomposition is based on correlation between portfolio weights and returns. Lo employs this measure to go beyond the limits of static traditional measures. Empirical results conclude the discussion. Chapter 7 deals with systemic risk as a consequence of the hedge fund industry. Systemic risk involves the correlated default of multiple financial institutions often triggered by a single event. Lo presents the results of his studies via illiquidity measures, attrition rates, and regime-switching models. Integrating quantitative and qualitative decision-making processes, Chapter 8 proposes an investment process for hedge funds. The illustrated seven-step process sets out very clearly how to arrive at an efficient capital allocation and should be of particular interest to practitioners. Departing from his usual style, in Chapter 9, Lo presents practical considerations without comprehensive analytics. He addresses risk management, risk preferences, the "efficient market hypothesis," and the regulation of hedge funds. The last chapter discusses possible explanations for the exceptional performances of long/short equity funds in August 2007 with month-to-date losses of -5% to -30%. By defining a long/short strategy, Lo mimics the effects quite accurately, although he points out that this does not constitute a proof of what actually happened at the time.

As mentioned earlier, most chapters of the book are based on recent papers published by Lo in top journals. Therefore, the articles embrace state-of-the-art principles of modern research. Even though the book potentially could have interlinked the concepts it contains, the chapters are rather independent of each other and reading Lo's original papers may be just as rewarding.

For scholars already familiar with the concepts of modern portfolio theory, the book is a good start in a quest to expand their knowledge of hedge funds strategies. However, its strong focus on hedge fund liquidity necessarily means that the book is not a comprehensive guide to the field. As mentioned above, the chapters are not particularly interrelated, but in a sense, this is a benefit as practitioners not comfortable with the technicalities in some chapters may still use the concepts introduced in other chapters in implementing an investment scheme. As one of the leading researchers in the field, Lo sets the standard by establishing key concepts for the industry with this book.