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## BOOK REVIEW

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Mark Kritzman, Senior Editor

### **TRADED FUNDS AND THE NEW DYNAMICS OF INVESTING**

*Ananth Madhavan*

(Reviewed by Ben Eischen)

Working at a firm that is a heavy user of Exchange Traded Products (ETPs) and previously having the chance to meet and see Dr. Ananth Madhavan present his research, I was excited to see an organized collection of his work. Madhavan's style is academic, from his time as a professor at USC and UPenn's Wharton School, and practical, as the current Global Head of Research at Blackrock's iShares.

As a comprehensive guide to the ETP market, this book gives the reader a view into the growing world of ETPs and efficiently tackles common misconceptions and criticisms. The book is divided into five parts where

each section comprises an introduction, interspersed with real world examples, quantitative concepts, and a succinct summary. Due to its organized structure, this book can be read linearly, referenced like an encyclopedia, or studied as a textbook. Although its target audience is quantitatively focused institutional investors, other investors should find the less technical guidance and real world examples just as valuable.

Part one walks the reader through the inception of the ETP universe, its focus on passive investing, and the basic structure that makes these investment vehicles unique. I appreciate Madhavan's straightforward presentation of the creation/redemption process. He is able to effectively communicate this important but complicated concept with the help of real world examples

and simplifying visuals. This section is useful as a primer for anyone new to the ETP game, and is a succinct review for active participants.

Part two is where Madhavan's academic prowess shines. In this section, the book delves into the price dynamics, valuation methodologies, and performance measures of ETPs. Madhavan presents us with a way to model three necessary components to understanding price and premium dynamics, secondary market price, NAV, and unobserved expected value. Since NAV can be stale and highly inaccurate, this model helps measure the true premium or difference in price and the unobserved expected value. The concepts found in this section are important for any serious ETP investor.

Part three covers common uses and applications of ETPs.

Today ETPs are used far beyond just core equity exposures. The proliferation of fixed income products and their tendency to be more liquid than the underlying bond holdings is one topic of discussion. As an example, Madhavan uses the iShares iBoxx Investment Grade Corporate Bond Fund ETF (LQD) where only 28% of the bonds in the basket trade once or more in a given day and despite this fact, the fund maintains \$16 billion in assets with bid-ask spreads below a basis point. Further topics covered include investing in commodities through ETPs and more adventurous strategies such as VIX trackers and leveraged exposures.

Part four takes the reader through the innovative ETP options now available. Madhavan covers various types of

alternative weighting schemes and fundamental indexing as well as making the case for Smart Beta ETPs (he prefers to call them factor based products). With the iShares connection one might think there would be a bias towards their funds, Smart Beta being some of them, but even with a few rosy comparisons between iShares' ETFs and their competitors, one is not distracted from the underlying message.

As an ETP investment professional, part five is a favorite. In this part, Madhavan covers a variety of regulatory and public policy issues related to ETPs. Pragmatic questions about the impact of ETP flows on their underlying constituent returns and the effects of a fire sale on fixed income ETPs were all answered in this

section. Additional examples present helpful illustrations of what happens when markets break down such as when the largest market maker of an ETP steps away (Knight Trading in 2012)—luckily most ETPs have over twenty authorized participants (brokerage firms allowed to create and redeem shares) willing to step in.

Overall, I think this book is a must-read for financial professionals trying to understand the ETP universe and its nuances. If you already have some familiarity with the ETP industry, you will find plenty of forward-thinking models to keep your interest, and if you are new, this book will quickly get you up to speed. Numerous real world examples and case studies do well at adding life to some abstract concepts.