general background in investments, but is highly motivated to learn about the tools and models of modern investment analysis.

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The Global Financial System: A Functional Perspective. By DWIGHT B. CRANE, KENNETH A. FROOT, SCOTT P. MASON, ANDRÉ F. PEROLD, ROBERT C. MERTON, ZVI BODIE, ERIK R. SIRRI, and PETER TUFANO. Boston, Mass: Harvard Business School Press, 1995. Pp. xi + 291.

The theme of this book is that a functional perspective is the best way for scholars, practitioners, and regulators to understand the dynamic changes occurring in the global financial system. According to the authors, the six primary functions they identify are more stable across time and more pervasive across borders than the institutions and instruments used to accomplish them. Accordingly, as we seek to understand either changes in a financial system or differences between two systems, the authors believe we should focus on how the functions are performed and not be misled by the various names or even types of institutions that exist.

As an example of their approach, Merton and Bodie in Chapter One (and again in Chapter Eight) list 11 different ways that someone can take a levered position in the Standard and Poor's 500 stocks. They point out that although the positions are equivalent from a neoclassical economics perspective, the redundancy exists because the different methods allow for more efficient position-taking in the face of tax differentials and regulatory rules. Therein lies the most important insight of the book, that the competitive market will create ways to perform the functions in the most efficient manner. Regulators and practitioners whose thinking is constrained by institutional boundaries will be outmaneuvered by creativity, technology, and financial innovation.

Aside from the two bookend chapters by Merton and Bodie, which set out the conceptual framework (Chapter One) and apply it to regulatory and public policy issues (Chapter Eight), the other six chapters each deal with one of the functions. Those are as follows:

1. Clearing and Settling Payments—André F. Perold
2. Pooling of Resources—Erik R. Sirri and Peter Tufano
3. Transferring Economic Resources—Dwight B. Crane
4. Managing Risk—Scott P. Mason
5. Establishing and Revealing Price Information—Zvi Bodie and Robert C. Merton
6. Dealing with Incentive Problems—Kenneth A. Froot

The six chapters represent an amalgamation of approaches. They are conceptual, historical, institutional, analytical, and mildly empirical. As is usually the case when there are multiple authors, there is some unevenness and some duplication. As indicated above, Merton and Bodie in two of their chapters list the 11 ways to take a Standard and Poor's 500 stock position. In three of the chapters we are given tutorials on standard deviation. More careful editing or coordinating would have eliminated some of that. A more telling criticism, however, is that there is little attempt to integrate the chapters. Aside from the introductory and concluding pieces and the Risk Management chapter, there are very few cross references in the material. The chapters appear to have been written more as individual articles that were then collected to form a book than as the result of a discussion about a book that identified the necessary parts.

All of the chapters do have value, and several are quite interesting. Mason's chapter on the Allocation of Risk and Froot's on Incentive Problems in Financial Contracting are especially valuable. Each one would be highly useful and suitable as a primer for MBA students or executives. They identify the key issues or problems and then demonstrate how modern financial economics has addressed them. Both pieces would serve to motivate reluctant individuals to learn more about derivatives and agency theory in order to enhance their understanding of financial markets.

I have to admit that Perold's chapter on the Payment and Clearing Function and Sirri and Tufano's on Pooling were the least interesting to me. The authors presented some data on the importance of the two functions, but I saw much of it as overkill. Perold's point that derivative usage has changed the nature of the clearing system is important. However, the discussion of netting seemed much too detailed. The same can be said of the extensive tables that Sirri and Tufano utilize to demonstrate that even our wealthiest families could not completely finance our largest corporations. Two and one half pages of family names could have been replaced with a few examples and a reference to *Forbes* and *Fortune*. More time and attention could have been spent integrating the impact of pooling on the incentive issues raised by Froot. For example, what has been the impact of syndication and securitization on the quality of lending? Given that originators of loans no longer bear all of the capital risk, has their incentive to monitor credit changed?

The authors of most books have a fairly clear idea of the purpose and audience for which the book is written. Moreover, either in a preface or introductory chapter they will indicate their goals for the book. When that is done, it seems to me that a reviewer has two obligations. First, he or she should evaluate the book on how well it meets those goals and its suitability for that audience. Second, the reviewer should comment on whether or not the goal itself merits the effort. It seems unfair to criticize a book for its lack of mathematical rigor if the author states the purpose as providing a conceptual, nonmathematical exposition. The reviewer can fairly comment that in his opinion, the subject cannot be understood without mathematics and the authors attempt to do so proves the point.

The difficulty I have now is the authors' failure to target the audience or the goals for the book. They go to great effort to indicate the major theme of the book, but do not state who should read it or to what purpose. And, unfortunately, the answers to those questions are not immediately evident.

The Global Financial System might be seen as accompaniment to the book, *Cases in Financial Engineering: Applied Studies of Financial Innovation* written by four of the authors: Mason, Merton, Perold, and Tufano (1995). In a review of that book, Triantis (1995) indicated that the broad selection of cases gave it versatility and the ability to be applied in a variety of courses. I concur with that assessment having used some of the cases in three different courses. If an instructor were to shape a single course around that book, then this book would be an excellent complementary text. The use of *Global Financial System* would address Triantis' concern that the technical notes included in the casebook need to be supplemented.

On the other hand, if an instructor were only using a few of the cases in each course as I do, then having students purchase the book would be inappropriate. However, I found the book to be particularly helpful as an instructor's guide on many of the issues raised by the cases. Triantis lists as a shortcoming of the casebook the unevenness of the teaching notes and reference material. For many of the cases, this book would provide the instructor with a broader context and a bibliography. The cases and the chapters are broad and most faculty will not be current on all of the issues.

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Fixed Income Markets and Their Derivatives. By SURESH SUNDARESAN. Cincinnati: South-Western College Publishing, 1997. Pp. xv + 624.

As Professor Sundaresan points out in his preface, fixed income securities make up about two-thirds of the total market value of all outstanding securities. I would hazard to guess, however, that much less than one-third of all the printed material on securities addresses the subject of fixed income securities and their markets! Given the growth in fixed income securities and their importance in government and corporate finance, this imbalance needs addressing, and Sundaresan's book is a significant step in that direction.

This book could be used as either a general reference or a textbook. It starts on a very basic level and is largely self-contained. It has detailed examples where appropriate, and, with some exceptions, the level of the book is fairly uniform and appropriate for advanced finance students. As such, it would be suitable for even an undergraduate elective course on fixed income securities.

Examining the book, the first chapter does a nice job of surveying the territory. The second and third chapters address the Treasury market and are particularly strong in their detailed coverage of Treasury auctions, the structure of the market, secondary trading activity, and, especially, the role of the repo market. The only real reservation I have is that in discussing the Salomon Brothers scandal, Sundaresan tries to show that the May two-year note's price was distorted, but the evidence is far from compelling. The primary reason is that he compares it to the April two-year note, but, although it was not as widely publicized, the April note's price was also severely distorted. Thus, it doesn't provide a good benchmark.

Chapter 4 contains a thorough discussion of basic bond mathematics and applications of yield/duration concepts. In the chapter, Sundaresan is particularly careful to discuss yield calculations as they are performed in practice, a common source of confusion. Two other things I like about this chapter are that Sundaresan shows how the "dollar value of an 01," a standard practitioner measure of price risk, is essentially the same thing as duration, and, in discussing hedging and trading applications, he provides a step-by-step, detailed illustration of how these risk measures can be applied.

Chapter 5 deals with basic yield curve and term structure analysis. As in the previous chapter, its strength is its focus on real-world considerations and its attention to detail. My only concern is that the STRIPS program is introduced here without much development. Given the importance of the STRIPS market (over half of outstanding long-term Treasury issues are held in stripped form), I would prefer to see a much more detailed treatment in one of the earlier chapters on the Treasury market.