Cambridge University Press
978-1-107-09150-4 - The Economics of Derivatives
T. V. Somanathan and V. Anantha Nageswaran
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The Economics of Derivatives

Endorsements

'Derivatives are beneficial in small quantities and toxic in large volume. This book, rooted in deep knowledge of both markets and policy-making, shows how to handle the dilemmas this creates.'

John Kay, London School of Economics

'I find derivatives fiendishly hard to understand. This excellent book goes a long way to demystifying them. Simple yet lucid, comprehensive without being unmanageable, and practical while retaining analytical rigor. It is an absolute must for those trying to make sense of derivatives and also for those trying to regulate them, and ensuring that they don't again become weapons of mass destruction.'

Arvind Subramanian, (formerly, Peterson Institute for International Economics),
Chief Economic Adviser, Government of India

'Even as derivatives markets have exploded in size and complexity, their 'value add' remains a contentious issue. At one end of the spectrum is the view that they enhance market efficiency, and at the other, the view that derivatives are largely 'financial weapons of mass destruction'. This is a debate that has largely frowned on moderation. This book by two outstanding professionals synthesizes that debate and presents a much needed balanced view that should inform policy-making in both advanced economies and emerging markets. Authoritative, comprehensive and insightful, this is at once a work of deep scholarship as well as rich real world experience.'

D. Subbarao, Former Governor, Reserve Bank of India

'This unique, fascinating and eminently readable book presents a synthesis of theory, empirical evidence, market practices and case studies and provides an outstanding analytical framework for policy-making and implementation. Drawing on the diverse professional experiences, deep scholarship and multiple institutional perspectives of the authors, it adds enormous value, in terms of clarity and perspectives, even for those like me who are familiar with this complex and controversial subject – as an academic or as a practitioner.'

Y. V. Reddy, Former Governor, Reserve Bank of India

'Everybody talks about financial derivatives and how they contributed to the 2007–2008 global financial crisis, but very few people have taken the time to provide us with a thoughtful account of the role of financial derivatives in today's global markets. While hundreds of books have been written on the valuation and hedging of financial derivatives, no book has taken a step back to look at the big picture and offer a framework for analyzing the societal cost and benefits of these products. This is a unique book that fills this very important gap. Any academic, practitioner, policy maker or serious student of financial history must find a place for this on their bookshelf.'

Hossein Kazemi, University of Massachusetts

'Are derivatives the elixir of financial innovation and creativity or weapons of mass destruction? Somanathan and Nageswaran have written a much-needed book that helps emerging market policy-makers think through the complexities of financial derivatives. Derivatives are of course financial tools which are double-edged – creative in the hands of the artist and destructive in the hands of the artful. This book raises the standard on realistic, professional assessment of a much misunderstood subject. It both surveys the literature and brings pragmatic views on how to use the tools effectively. I totally recommend it as both a textbook and handbook for policy-makers.'

Andrew Sheng, former Chairman, Securities and
Futures Exchange Commission, Hong Kong

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To my mother, and my uncles T. S. Balaraman and T. S. Srinivasan, to whom I owe more than I can acknowledge

T. V. S.

To the various teachers in my life – past, present and future

V. A. N.

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Foreword

The term 'derivative' is one of a number of finance terms which immediately conjures up a wide range of reactions from people. Some will quickly blame the proliferation of the instrument for many of the global economy's woes whilst others view it as an instrument which has helped in risk mitigation and economic development. Unpicking the prejudices and drilling down to the fundamental drivers and uses of derivatives is critical. Looking from all sides enables the reader to gain a clearer understanding away from the noise related to finance in the post global financial crisis world. *The Economics of Derivatives* takes great strides in achieving this, taking the reader through an accessible yet sufficiently detailed and technical assessment, so as to provide the reader with a much better understanding.

Some participants and observers of the financial markets have understandably focused on the role derivatives played, most recently in the global financial crisis. Indeed, it has been argued that derivatives were key contributors which enabled excessive risk taking which resulted in rogue traders such as Nick Leeson and Jerome Kerviel. Of course, with all of these things, the reality is much less straightforward and fraught with complexity.

What is agreed is that the use of derivatives and the impact of them on the global economy are of great importance. The impact on the developed economies has been well documented. What receives less coverage is the significant benefit that derivatives have had on the emerging economies. The ability to unpack the different components of risk have directly enabled countries to manage risk more effectively and allocate it in ways which have resulted in improved economic outcomes. This book examines in detail these critical aspects and grounds them well in economic theory. By examining the impact of the use of derivatives on the developed and the emerging markets, the book rightly shines a light on both the positive aspects as well as the challenges the derivatives markets and its participants face. Further, the authors' judicious use of case studies provides the reader with the ability to observe the real-life uses of derivatives and judge for themselves the clear economic impact derivatives have had. The case studies are wide ranging, up to date and rich in their relevance; they enable the reader to gain a more rounded understanding of how such instruments have had direct economic benefit to emerging economies. The authors draw on contemporary experience and adeptly step the reader through the salient points in an unbiased way.

By providing additional risk tools, countries have been able to move forward on budgetary and planning decisions with much greater certainty which has in turn led to stronger economic benefits. Recent examples where countries have used derivatives in the context of commodities markets or natural events are explained to the reader in a way which illustrates the positive elements of the use of derivatives and their economic impact. The authors, however, do not shy away from discussing some of the very serious issues and perverse incentives that have also arisen as these tools have evolved. It is important to understand both sides of the story. The application of this balanced approach by the authors takes the reader through the broad spectrum of discussion whilst also expressing their own views, leaving the reader well positioned to make a much more informed judgement.

The Economics of Derivatives also, importantly, seeks to address the regulatory aspects of the markets. Whilst some market observers have been highly critical of the regulatory environment, some with the benefit of hindsight, this book takes a step back to make its assessment. It examines the flaws of the system, but also presents interesting perspectives on the pros and cons of seeking perfection in an inevitably imperfect world. Further, the authors rightly pose the questions and put forward their views for a more refined approach by the regulatory authorities in terms of the different types of markets in economies at different stages of development. The authors look at how regulation could be thought about in order to encourage financial innovation in developing economies versus developed economies. As they rightly observe, blunt instruments are not always appropriate and can result in unintended consequences. The regulatory spectrum and the degrees of respective complexity need closer examination, something which the authors set out. It is vital that the regulatory conundrum is fixed.

An adjunct to the regulatory conundrum is the performative nature of, and some market participants' approach to, the use of models. The authors' layout, well the issues we face as blind confidence, has sometimes been placed in models which in turn contributed to a number of market failures. The complications that have evolved around the modelling of derivatives and the consequential impact on being able to assess in an effective way the true underlying positions and their effect on the markets, adds a further layer of issues for the regulators and users of derivatives.

As someone who was at the heart of the financial world during the global financial crises and now working with emerging economies in particular, I have seen the various facets of derivatives and their impact. The power of good that can be brought to bear by the effective use of such instruments is immense and should not be underestimated. It is important that the positive elements of derivatives are reacquired and that we move away from the negative stereotyping that inevitably follows economic and financial shocks; we cannot let an unrefined framework stymie the positive application of derivatives. It is, of course, imperative that lessons are learned and the use and regulation of derivatives evolves in the most effective way. *The Economics of Derivatives* provides an excellent foundation for the assessment; irrespective of prejudices, good or bad, we must not be indifferent.

Bertrand Badré
Managing Director and Group Chief Financial
Officer, The World Bank Group
Washington, DC

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Preface

Are derivatives markets beneficial to the economy? If so, how and in what circumstances? Can they be harmful to the economy? If so, how and in what circumstances? These are questions that interested us when we (separately and unbeknownst to each other) were doing our doctoral research in the late eighties and early nineties. In the years since then, these questions have become more important because derivatives trading – relatively small when we were students – has grown enormously in size, widened greatly in scope and expanded vastly in geographical spread. In recent years, derivatives have alternately been lauded for boosting prosperity and condemned for causing crises.

As economists who have done research on the subject and (at one time or other) traded derivatives, we have felt the absence of a balanced, concise and comprehensible examination of the economic effects of derivatives markets and their implications for public policy and regulation. This book is a contribution to filling that gap.

Writing this book has broadened and deepened our knowledge, but also made us even more aware of the gaps that remain in the economics of derivatives. Increased volumes of research have not necessarily narrowed these gaps. The field of derivatives has sometimes suffered from spurious precision and doctrinaire overconfidence. While this book will hopefully add to the reader's understanding of the subject, it is important to understand that that understanding will remain incomplete.

T. V. Somanathan
V. Anantha Nageswaran

(N.B. The views expressed in this book and the foreword are the personal views of the authors and the writer of the foreword respectively, and should not be construed as representing the views of any organizations they may be affiliated to.)

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