I have always thought authoritative lists such as “100 books you should read”, “500 films you must see” or “1,000 albums you should hear at least once in your life” are fascinating. So it is great to also have such a list available in one’s professional field. Professor Diebold’s book does just that; it compiles his list of academic research articles one should know in risk measurement and management. Through his central position in financial econometrics, based on his own extensive research, Professor Diebold is one of the few who can make such a list.

The book divides the history of research in risk measurement into six parts. Each part contains reprints of four to ten articles; totalling thirty-seven (see Table on next page). The oldest article is Bachelier’s classic but long forgotten piece from 1900 on the theory of speculation. However, the “modern” era of risk measurement research, covered by the book, really started in the 1950’s. The list ends with Diebold’s and his co-authors’ own forward-looking review article from 2011, emphasizing the limits of statistical analysis and reminding us of the importance of heeding the unknowable.

In the introductory chapter, which is the key to the book, Diebold explains his choice of articles and reviews the central developments in risk measurement research. As can be seen from the average year of article publication (see Table), the six parts reflect the chronology of the main research themes in the field, although the themes do overlap in time.

An important example of this chronological overlap is the Froot and Stein (1998) article, listed in the first part which deals with the role of financial risk measurement and management. As Diebold points out, it took academic research some forty years, i.e., until that article, to explain why firms actually need risk management. The basis of modern risk measurement methods, constituted by the Arrow-Debreu securities which are a central concept in economics, dating from the 1950’s, assumes markets to be perfect and complete, and hence implies no role for enterprise risk management. Investors could do the optimal risk-sharing among themselves. Only Froot and Stein (1998) carefully considered the market frictions which rationalize risk management within firms.

The next two sets of articles deal with modeling speculative price movements (Part II) and time-varying volatility (Part III). The immediate connection between these parts is the following. The key message from Part II is that unconditional price movements have fat tails. They are not normally distributed, a fact still often not heeded in many practical applications. However, the conditional distribution may still be normal, once time-variation in periodic variance is taken into account (Part III). This is what especially the famous ARCH (autoregressive conditional heteroscedasticity) models formalize.

Part IV then moves to considering the market for default-free bonds; an area of active theoretical and empirical research particularly in the 1980’s and the 1990’s. I was first surprised not to see the well-known Cox-Ingersoll-Ross (1985) and Heath-Jarrow-Morton (1992) models listed, but then realized that the listed article by Duffie and Kan (1996) provides a synthesis and an extension of them.

The crisis that started in 2007 and finally extended to the euro crisis, has reminded us of the possibility that even bonds considered default-free might actually default. Default risk and other rare events are dealt with by the set of articles in Part V. Research in this part also emphasizes that correlations shoot up during market distresses; a lesson painfully learnt during the recent crisis.

Diebold notes we need more understanding of the fundamentals that cause risks, particularly those that become a systemic threat. These risks are typically intertwined with the business cycle. This is the broad theme of the last set of articles in Part VI. As regards systemic risks, “(m)ost related research is unpublished, and much is ongoing”. Hence they do not yet appear in this book. However, I believe an important, and related, concept of endogenous risk (see e.g. Danielsson et al., 11 March 2009, at www.voxeu.org) might have deserved some comment in the book.
Diebold is fully aware of the limits of our knowledge and the possible implications of this for policy. He notes that “a cynic might assert that, by focusing on (known) risks, the existing literature has made us experts on the least-important aspects of financial risks management” (i.e., risks prevailing in normal times), although he believes that such a view is not balanced; the existing literature has certainly served important needs.

To conclude, Professor Diebold’s fascinating compilation summarizes the history of risk measurement research, focusing on research prior to the global financial crisis. After the crisis there has been much debate on the need of a paradigm shift of some degree in economics and finance. Adapting Andy Haldane², perhaps the path more followed in the future will be to study optimal choice under uncertainty – the inability to form priors on the distribution of future outcomes – rather than risk. I can’t wait to see the next authoritative list of the “must readings” of the ongoing new research agenda in risk measurement, to be provided either by Professor Diebold or one of his peers.

Table: Contents of Financial Risk Measurement and Management (Francis X. Diebold) by numbers

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³ Excluding Bachelier (1900).

News from the SUERF Council of Management

It was with particular sadness that Council learnt of Catherine Lubochinsky’s decision to stand down from the SUERF Council of Management at the start of 2013. Catherine had served on Council since 2005, including being President of SUERF between 2006 and 2012. In succeeding David Llewellyn, she became SUERF’s first Mme Présidente.

Catherine’s career to date has seen her active across all three of SUERF’s three constituencies. In academia she was until recently Professor of Economics and Finance at the University of Paris 2, teaching courses on financial markets, fixed income, derivatives and interest rates. Her research has focussed on derivative strategies, credit spreads, credit rating agencies, financial regulation and fund management. She has been a consultant to various financial institutions in the private sector and also a consultant to the Banque de France’s Financial Markets and Stability Department. She has also been a member of the “Cercle des Economistes” and the European Shadow Financial Regulation Committee (ESFRC), and has been a very familiar speaker at conferences throughout Europe and in business media in France.

The SUERF Council of Management wishes her every success in her exciting and challenging new position as Managing Director, Research, of the Global Risk Institute in Toronto – and hopes that her relocation to North America will not prevent her from attending future SUERF events. Catherine’s unique blend of Gallic flair and enthusiasm, as well as her ability to mix light-heartedness with seriousness as required will be greatly missed within Council.

Urs Birchler