This is a great book on Derivatives. I actually think is more on Derivatives than on Risk Management. The author makes a great effort (and states it) in writing for end users and not for rocket scientists. I think he succeeds in his objective; the book has a great deal of explanations on how to use derivatives to hedge all sort of risk positions. In this book, as in most of the books in risk management, I would like more discussion on non-financial risks and non-financial markets hedges. Risk management is not limited to financial risk, and most of the times firms face several problems due to non-financial risks. Considering this caveat, this is one of the best books on derivatives, and I think is a “must have” for anybody interested in finance in general and derivatives and risk management in particular.

In the first part, in Chapters 1 to 4, the author discusses crucial general aspects on risk management. After a discussion on derivative markets in Chapter 1, discusses the relationship between investors and risk management, how can risk management add value, and a firm wide approach on risk management in the following chapters of this section. This section includes a classic discussion on the reasons why risk management can add value (Chapter 3), and a general discussion on Value at Risk and Cash Flow at Risk in Chapter 4.

The following part of the book (the central part of it), includes Chapters 5 to 14, and is devoted to hedging using derivatives. Chapter 5 starts with a simple example to show how to value a forward contract. Continues with an interesting analysis and discussion on futures contracts, including the differences between forward and future contracts. The discussion on hedging with futures and forwards in Chapter 6 is very detailed and clear. Chapter 7 takes hedging with forwards and futures to the real (imperfect) world, discussing most of the situations that users tend to face. It concludes with an interesting discussion of the failure of Metallgesellschaft hedging program in Dec. 1993. Chapter 8 presents the discussion on cash flow exposures. It distinguishes between transaction, contractual and competitive exposures and the price and quantity risks, and uses this distinction in the hedging strategies. It also presents a nice discussion in identifying the exposures; relying on the past and using regressions, or allowing for new distributions and using Monte Carlo Simulation models. An analysis on interest rates
exposures is presented in Chapter 9. This analysis is mostly devoted to the analysis of a portfolio, but also includes some discussion on interest rate exposure for a financial and non-financial corporation. Chapter 10 discusses hedging with options. The chapter starts by discussing how to hedge an existing exposure using options, then presents some history of options and closes discussing some important properties of option contracts. Chapter 11 discusses the binomial model and its important uses in option pricing and hedging. It discusses important concepts for risk management as arbitrage, replicating portfolio and hedge portfolio, and how to use them in option pricing. Starts using a binomial model in a single period a then moves into a multi-period model. The chapter ends showing how to replicate any sort of payoff. Chapter 12 is entirely devoted to the discussion of the Black and Scholes equation. The chapter starts by moving from the comfortable binomial setting into the continuous time framework so the reader can get the sense of where the equation came from. It continues discussing the greeks; the exposure of the option prices to the stock price, to volatility, to the interest rate, and to the strike price. The chapter continues with an interesting discussion on extensions and limitation of the B&S equation including empirical evidence and how to deal with market imperfections. Chapter 13 moves into the discussion of dealing with the non-linear payoffs generated by a portfolio of derivatives. It discusses measurement and evaluation of those risks, and how to hedge them using options. The author uses the case of Nick Leeson at Barings in order to analyze the topic, including a discussion on Stress Testing and Portfolio Insurance. Chapter 14 is devoted to the discussion of options on bonds and interest rates. It starts with an extensive discussion on caps and floors, including how to use them as a hedge and how to price them. It uses B&S and discusses its limitations and alternate approaches.

Part 3 of the book, called “Beyond Plain Vanilla Risk Management” discusses, in Chapters 15 to 19, demand and supply of derivatives, swaps, exotic options, credit risk and credit derivatives and some recent development in the practice of risk management. The swaps chapter (Ch. 16) presents interesting discussions and a nice example on the topic. Chapter 17 presents several exotic options including Digital Options, Barrier Options, Options on Average and Options on Multiple Assets. There is an additional short mention to other exotic options as Lookbacks, Options with outside barriers and correlation digitals, Bermuda Options, Rainbow Options and Passport Options. The chapter ends with the discussion on the Gibson Greetings case using exotic options. Chapter 18 discusses Credit Risk, an extremely important topic. It discusses several credit risk models and credit risk derivatives. Chapter 19 starts presenting the story of LTCM. It continues discussing the operational risk of risk management and some usual discussions on risk measurement. After some explanation on regulation the chapter ends with a review of the empirical evidence on risk management and hedging.