In recent years, the finance industry has mushroomed to become an important part of modern economies with many science and engineering graduates joining the industry as quantitative analysts, using mathematical and computational skills to solve complex problems of asset valuation and risk management. Mathematical Finance: A Very Short Introduction provides an overview of mathematical finance today. It introduces arbitrage theory, explaining why it works the way it does, and how it is key to pricing financial contracts, to credit trading, fund management, and the setting of interest rates. It also discussed developments to mathematical finance in the wake of the 2008 financial crash, and surveys the most pressing issues in mathematical finance today.