

Contents

Part I Preliminary Explorations

1	Introduction	3
1.1	Literature Review and Motivation	3
1.1.1	Why Should Firms Hedge?	4
1.1.2	How Much Do Firms Hedge?	7
1.2	Outline	9

Part II A Micro View: Optimal Risk Management

2	Backwardation and Optimal Hedging Demand in an Expected Utility Hedging Model	15
2.1	Introduction	15
2.2	The Expected Utility Hedging Model	17
2.2.1	Optimal Long Hedging	17
2.2.2	Hedging Costs and Optimal Hedging	20
2.3	Empirical Investigation	21
2.3.1	Data and Summary Statistics	21
2.3.2	Vector Autoregression and Vector Error Correction Analysis	24
2.4	Discussion.....	30
3	Mean-Variance Versus Minimum-Variance Hedging	31
3.1	Introduction	31
3.2	The Mean-Variance Approach to Hedging	32
3.2.1	The Model	32
3.2.2	Optimal Hedging	33
3.2.3	Pure Hedging and Speculative Demand.....	38
3.2.4	The Value of the Futures Market	41

3.3	Minimum-Variance Hedging and Hedging Effectiveness	42
3.3.1	Deriving the Pure Hedge	42
3.3.2	Hedging Effectiveness and Correlation	44
3.3.3	Optimal Hedge Ratios by Linear Regression	45
3.4	Discussion.....	47
Part III A Macro View: Economic Stability		
4	Corporate Risk Management in Balance-Sheet Triggered Currency Crises.....	51
4.1	Introduction	51
4.2	The Basic Mundell–Fleming–Tobin Model	53
4.2.1	The Goods Market	53
4.2.2	The Financial Markets	56
4.2.3	The Multiple Equilibria MFT Model.....	57
4.3	Linear Hedging and Speculation in the MFT Model.....	58
4.3.1	The Hedging Methodology and the Investment Function	58
4.3.2	Speculation and the Investment Function	62
4.3.3	Simulation of the Basic Model	63
4.3.4	Simulation of Hedging Activity	64
4.3.5	Simulation of Speculation	65
4.3.6	The Role of Trading Costs: Forwards Versus Futures	66
4.4	A Nonlinear Hedging Strategy Using Options	73
4.4.1	Options Hedging and Investment.....	73
4.4.2	Simulation of Options Hedging	76
4.4.3	Linear Versus Nonlinear Hedging Strategies	78
4.5	Economic Implications	81
4.5.1	Corporate Hedging and Economic Stability	81
4.5.2	Capital Flight and Private Asset Allocation.....	83
4.6	Discussion.....	86
5	Arbitrage Pressure, Positive Feedback Speculation, Selective Hedging, and Economic Stability: An Empirical Analysis and Catastrophe Modelling	87
5.1	Introduction	87
5.2	Arbitrage Pressure and Noise Trading	89
5.2.1	Arbitrage with Transaction Costs.....	89
5.2.2	Arbitrage with Holding Costs	91
5.2.3	Noise, Positive Feedback Trading, and Herding	92
5.3	Vector Autoregression Analysis of Futures Trading Activity	94
5.3.1	Data	94
5.3.2	Speculation Versus Hedging	95
5.3.3	Long Versus Short Speculation	97
5.4	Logistic Smooth Transition Regression Analysis of Long Speculation	98
5.4.1	The LSTR Model.....	102
5.4.2	Testing Linearity Against LSTR.....	102

5.4.3	Estimation Results	103
5.4.4	Misspecification Tests	112
5.5	A Catastrophe Theory Approach	113
5.5.1	The Cusp Catastrophe Model and Underlying Hypotheses ...	115
5.5.2	The Chain of Events	116
5.6	Discussion.....	118
6	Conclusions.....	121
A	A Geometric Approach to the Hedgers' Surplus.....	125
B	Stability Analysis	127
C	The Computation of the Catastrophe Surface.....	131
	Bibliography	133